

An update to the Greig Health Record: Preventive health care visits for children and adolescents aged 6 to 17 years -2025– Technical report

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Pubmed: Preventive services, Prevention, Preventive Health Care, Periodic Health Examination, (infant, child, adolescent) Healthy Living,

Organizations searched: for all topic headings: Pubmed, Health Canada, CPS, USPSTF, CTFPHC, Bright Futures, CEP, Parachute, NACI, ACIP, CDC, CHEO

What is the Greig Health Record and What is in This Update?

The Greig Health Record (GHR) is an evidence-based preventive care tool designed to be used in preventive care visits for children and adolescents ages 6 to 17 years old. It is available at <https://greighealthrecord.ca/>. It contains a checklist tool that can be used directly in the patient's paper or electronic medical record, supplementary information sheets for clinician reference, and patient information handouts. It is now available in a French Language version. This tool was designed using the model of the widely used Rourke Baby Record for infants and children from birth to age 5.¹

This is the third update of the Greig Health Record, which was first published in 2010 and again in 2016.²

^{3 4} Since its initial publication, research into preventive care for school-aged children and adolescents has been ongoing. This update incorporates recent research in preventive care for this age group, referencing current guidelines and systematic reviews in preference to individual studies where available. The Greig Health Record comprises information and evidence which is relevant for all paediatric populations, but where possible Canadian research and guidelines have been prioritized.

The 2025 update contains new sections on Adverse Childhood Experiences, Poverty Screening, Refugees and Newcomers, Indigenous Populations, Social Prescribing, Internet Gaming Disorder, Eating Disorders, Menstrual Health, Testicular Self-Examination, 2SLGBTQI+ Resources, Mpox, Tuberculosis Screening and Vaccine Hesitancy. There are revised and expanded sections on Confidentiality and Consent, HEADSSS Questionnaire, Bullying and Abuse, Screen Time and Digital Media, Internet Gaming Disorder, Contraception, Syphilis Screening, Nutritional Guidelines, Sugar Substitutes, Environmental Hazards, Iron Deficiency Screening, and Meningococcal B Vaccination. Updated and additional tables and revisions may be found in the supplementary resource pages.

As in the Rourke Baby Record, three fonts are used to reflect the strength of recommendations based on review of the literature: **boldface** for strong, *italics* for conditional and regular typeface for consensus recommendations. The classification system used here is based on that from the Canadian Task Force on Preventive Health Care (CTFPHC) which evaluates the quality of supporting evidence as well as the "balance between desirable and undesirable effects... and wise use of resources in determining a strength of recommendation".⁵

Office Counselling and Preventative Care Visits

Primary care providers are ideally positioned to address evidence-based recommendations with patients and their families. It is now well established that office counselling works for promoting healthy behaviours such as helmet use, condom use, physical activity, responsible television viewing and adherence to screen time recommendations, safer firearm storage, and parental smoking cessation.^{2 6 7}

⁸ It may also be effective in increasing seat belt use.⁹ A 2022 summary of systematic reviews for health promotion interventions in the school-aged child and adolescent is available¹⁰, however the application of evidence-based interventions continues to require further study.¹¹

Visit frequency and structure

The frequency of preventive visits in this age group is recommended to be every two to three years (consensus). Not all elements in each section must be covered in one visit. Clinicians can use personal discretion when selecting topics to discuss with individual patients and the timing for specific discussions.

Dedicated preventative visits are not the only opportunity for screening, prevention counselling and anticipatory guidance. This tool can be used at other visits and in other settings to create an aggregate understanding of a child's sociodemographic environment, risk and protective factors, and health behaviours. This robust understanding can then inform the clinician to individualize clinical pathways and interventions that optimize each child's outcomes.

Confidentiality and Consent

Confidentiality is central to a successful therapeutic relationship, particularly with the adolescent patient¹². Adolescents who can trust that confidentiality is assured, are more likely to access health care and disclose health care information; conversely those who have concerns about privacy are less likely to be open about more sensitive issues such as substance use, mental health and sexual health.¹³ It may be useful to review references for interviewing and examining adolescents.^{14 15 16} It is generally recommended that at least part of an adolescent visit be conducted in private, with parents or guardians excused. The patient's right to privacy in their medical care and health records is protected by federal legislation and no age is specified.¹⁷ It is also important to help adolescents understand both the scope and limits of patient confidentiality; those rules of confidentiality cannot cover cases of homicidal or suicidal ideation and emotional, physical or sexual abuse.¹²

Capacity is a pre-requisite for consent. A patient has the capacity to consent if they are able to "understand information relevant to a treatment decision and to appreciate the reasonably foreseeable consequences of a decision or lack of decision."¹⁸ See table below. That capacity may be situation specific. For example, a young adolescent may have the capacity to consent to contraception but not to cancer treatment.

While there are variations among provinces and territories, minors can give informed **consent**¹⁹ to therapeutic medical treatment under Canadian common law, provided they understand and appreciate the proposed treatment, the attendant risks and possible consequences.^{20 21} Issues of capacity and consent, including inter-provincial variations are clarified in a Canadian Paediatric Society (CPS) position statement.²²

Confidentiality, Capacity, and Consent
This chart is not a comprehensive guide. See individual references for details and clarification.
Confidentiality The patient's right to privacy in their medical care and health records is protected by federal legislation and no age is specified.
Capacity Depends on ability to understand <ul style="list-style-type: none"> the medical problem the proposed treatment the alternatives (if any) to the proposed treatment The option of refusing treatment or of it being withheld or withdrawn And ability to appreciate <ul style="list-style-type: none"> the reasonably foreseeable consequences of accepting and refusing the proposed treatment And ability to make a decision that is <ul style="list-style-type: none"> not substantially based on delusions or depression
Consent Requirements include: <ul style="list-style-type: none"> The patient or decision maker must be capable. (capacity: see above) All relevant information be given to make an informed decision. Must be voluntary and without coercion. No Canadian standard for age of consent. Legislation varies between provinces and territories.
References Agostino H, Toulany A. Considerations for privacy and confidentiality in adolescent health care service delivery. Paediatr Child Health. 2023 May 16;28(3):172-183 Etchells E, Sharpe G, Elliott C, Singer PA. Bioethics for clinicians: 3. Capacity. CMAJ. 1996 Sep 15;155(6):657-61. https://www.cmpa-acpm.ca/en/advice-publications/handbooks/consent-a-guide-for-canadian-physicians https://cps.ca/en/documents/position/medical-decision-making-in-paediatrics-infancy-to-adolescence

Confidentialité, capacité et consentement
Ceci n'est pas un guide complet. Voir les références individuelles pour plus de détails et de précisions.
Confidentialité Le droit du patient à la confidentialité de ses soins médicaux et de son dossier de santé est protégé par la législation fédérale et aucun âge n'est précisé.
Capacité Cela dépend de la capacité à comprendre : <ul style="list-style-type: none"> le problème médical ; le traitement proposé ; les solutions de remplacement (le cas échéant) au traitement proposé ; la possibilité de refuser un traitement, de le suspendre ou de l'interrompre. Et la capacité d'apprécier : <ul style="list-style-type: none"> les conséquences raisonnablement prévisibles de l'acceptation et du refus du traitement proposé. Et la capacité de prendre une décision : <ul style="list-style-type: none"> pas essentiellement basé sur des délires ou une dépression.
Consentement Les exigences comportent en ce que : <ul style="list-style-type: none"> le patient ou le décideur doit être capable (capacité : voir ci-dessus) ; toutes les informations pertinentes soient fournies pour prendre une décision éclairée ; cela doit être volontaire et sans coercition. Il n'y a aucune norme canadienne concernant l'âge du consentement. La législation varie selon les provinces et les territoires.
Références Agostino H, Toulany A. Considerations for privacy and confidentiality in adolescent health care service delivery. Paediatr Child Health. 2023 May 16;28(3):172-183 Etchells E, Sharpe G, Elliott C, Singer PA. Bioethics for clinicians: 3. Capacity. CMAJ. 1996 Sep 15;155(6):657-61. https://www.cmpa-acpm.ca/en/advice-publications/handbooks/consent-a-guide-for-canadian-physicians https://cps.ca/en/documents/position/medical-decision-making-in-paediatrics-infancy-to-adolescence

Transition to Adult Health Care

Care of the adolescent involves a process of developing autonomy and responsibility for personal health care issues and of transitioning from child-centred to adult-oriented health care. Both processes become particularly important when adolescents have special needs. The CPS provides a helpful statement for guidance in such cases.²³ Considerations for transition in all cases should include an individualized transition plan and a designated most responsible provider who remains connected to provide support until the transition(s) are complete.²⁴ An app is also available to assist with the transition.²⁵ Numerous resources for children and youth with disabilities are available from the Planning Network.²⁶

Transition to Adult Health Care – Special Needs Resources
My Transition App Apple Devices https://apps.apple.com/ca/app/mytransition-app/id1327036414 Android Devices - not currently available Tracker for appointments and medications Contact information for your health care providers Important notes about your health
Surrey Place Health Care Transitions – Tools for youth with developmental disabilities https://ddprimarycare.surreyplace.ca/tools-2/general-health/transitions/
Planning Network https://www.planningnetwork.ca/ Resources and Toolkits for transitions, federal supports, etc

Transition vers les soins de santé pour adultes – Ressources pour les besoins spéciaux
Planning Network https://www.planningnetwork.ca/#ressourcesenfran%C3%A7ais Ressources et troussees d'outils pour les transitions, les soutiens fédéraux, etc.

Checklist Template use

In the Greig Health Record, checklist templates are divided into three age ranges: 6 to 9, 10 to 13, and 14 to 17 years (inclusive). Section headings include: *Weight, Height and BMI, Psychosocial history and Development, Nutrition, Education & Advice, Specific Concerns, Examination, Assessment, Immunization, and Medications*. The checklist tables are divided arbitrarily into early, middle and late age groupings, but it is important to remember that children develop at different rates and screening questions should be tailored for each individual.²⁷

A small area for family history has been included on the top left-hand corner of each template to help identify children at risk on the basis of family medical history or circumstances. Other risk factors and allergies can also be recorded here.

Note that for the physical examination section, consensus opinion supports the inclusion of height, weight, blood pressure and visual acuity screening.^{28 29} Other examinations are included for the purpose of case-finding, as needed, and can be used at the clinician's discretion.

Eleven pages of selected guidelines and resources related to preventive care visits accompany the checklist tables. The first two pages focus on nutrition, sleep, safety and Internet resources and are designed to download, print and share with patients or parents.

Developmental Surveillance

Development

Developmental surveillance is of crucial importance for the pre-school age child. Primary care providers are the first point of contact for those assessments. For school-aged children and adolescents, screening consists of questions about school performance and enjoyment as well as peer relationships. These questions are directed to patients and parents and caregivers if appropriate for age and development of the patient. Problems in these areas may point to developmental issues.

Until recently there has been little guidance for clinicians for evaluation of developmental disorders in the school-age child. However, when concerns arise, health care providers are ideally positioned to assess and provide parenting guidance for supporting skill development, referrals for developmental evaluation to arrive at a diagnosis, social prescribing (community resources for family support), and health management when needed. Dosman and al. have created a table of expected developmental milestones each of the years from ages 6 to 12 years to allow for identification of those needing additional evaluation, monitoring and supports.³⁰ The tool is included, with permission, in the Greig Health Record.³¹

While a table of milestones may help as a screen, it cannot encompass the multitude of inputs influencing child development. Additionally, it does not reflect a strengths-based approach. The field of child development recognizes the importance of a broader framework to assist in assessment and finding solutions. One such framework is the F-words, which include Functioning, Family, Fitness, Fun, Friends and Future.³² Clinicians may find exploring the child's abilities and strengths leads to improved engagement and outcomes.

In terms of prevalence, developmental disorders are the most common medical condition for school age children. In terms of prevalence, developmental disorders are the most common medical condition for school age children. The most common concerns relate to delayed Academic learning in some school subjects (specific learning disorders, diagnosed by psychology), Social-Emotional difficulties in coping with emotions or relationships, ADHD, delayed Academic learning in all school subjects and social maturity (intellectual development disorder, diagnosed by psychology), and autism spectrum disorder.³³ Additional screening and/or follow-up may be required for these conditions when concerns are identified. Standardized developmental screening instruments provide the most robust data to detect problems that are otherwise missed. Screens are short questionnaires completed by parent or staff (in the waiting room or at home) and are easily scored. When a concern is detected first through presence of risk factors or parent/clinician concern, the primary care provider would decide whether or not to confirm it with a screen prior to proceeding to developmental evaluation.³⁰

Crucial Skills in Child Development – School-Age				
At every age ask about Academics. Is there a concern about the child's writing reading or math?				
Age	Motor	Communication	Cognitive	Social – Emotional

6 Years	Balances on 1 foot for 10 seconds Sees to catch tennis ball with 2 hands; buttons & unbuttons Dynamic mature pencil grasp	Makes back & forth conversation on partner's topic Follows detailed 2-step directions	Sometimes follows rules without parent present Concentrates for 5-minute chore; does morning routine receiving 1 prompt per task	When calm, with parent help says a solution for problem; guesses friend's feeling Understands right vs. wrong with coaching
7 Years	Skips forward Uses chopsticks without help Hooks & separates zipper	Follows embedded 2-step directions Speaks with mostly correct grammar Hears for speech 90%+ understood	Verbally copies 5 digits forward, 3 digits backward	Draws or visualizes worries Knows how to be a good friend
8 Years	Balances on 1 foot for 20 seconds Rides 2-wheel bicycle Uses knife & fork to cut	Shows understanding of familiar story	Generalizes rules to similar situations Ignores distractions; returns to task spontaneously after interruption	Self-calms using variety of strategies Says >1 solution for problem Guesses other's intention
9 Years	Hops forward then stops & balances on 1 foot Sees to throw tennis ball at wall & catch after 1 bounce, with 2 hands (6/10 tries) Copies vertical diamond & 3-dimensional cylinder	Detects implied meaning Describes experiences with main idea, thoughts, & feelings Talks about what they learned in school	With parent help when calm, says successful skill they used in difficult experience	Understands people can have different interpretations of events Responds soothingly to someone's distress
10 Years	Walks forward tandem Sees to throw & catch after 1 bounce (8/10)	Talks in group conversation Describes experiences with detail	Does morning routine without prompts	Knows what caused their negative emotion Remains calm when provoked Refrains from rude comments Adjusts quickly to unexpected change
11 Years	Sees to throw & catch with no bounce (6/10)	Makes oral presentations interesting by using body language	When studying for tests, determines which information is important	Spontaneously chooses restitution Realistic about their strengths and weaknesses Receptive to coaching from parent and clinician
12 Years	Sees to throw & catch with no bounce (7/10) Copies pre-drawn horizontal diamond	Thinks about how other feels from looking & listening during conversation	Sometimes thinks 'what if' when choosing solutions for problem; sometimes generalizes rule to new situations Concentrates for 30-minute homework, 15-minute chore Remembers what to take to and from school	Might challenge their negative thoughts as coping strategy for distress; starts accurate perspective taking; considers intention when judging right from wrong Adjusts actions from seeing impact on other Does routine chores almost equally to parent

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Compétences essentielles au développement de l'enfant — Âge scolaire				
À chaque âge, posez des questions sur les compétences scolaires. Y a-t-il des inquiétudes concernant l'écriture, la lecture ou les mathématiques chez l'enfant ?				
Âge	Motricité	Communication	Cognitif	Social — Émotionnel
6 ans	Reste en équilibre sur un pied pendant 10 secondes. Est capable d'attraper une balle de tennis avec les 2 mains ; boutonne et déboutonne. Prise du crayon dynamique et mature.	Capable de converser dans les deux sens sur un sujet qui intéresse l'autre. Suit des instructions détaillées à 2 étapes.	Il suit parfois les règles sans la présence des parents. Est capable de se concentrer sur une tâche de 5 minutes ; exécute la routine matinale en recevant 1 incitation par tâche.	Dans le calme, avec l'aide des parents, propose une solution au problème ; devine les sentiments de son ami. Comprend la différence entre le bien et le mal avec de l'aide.
7 ans	Saute en avant. Utilise des baguettes chinoises sans aide. Ferme et ouvre la fermeture à glissière.	Suit des instructions intégrées en 2 étapes. Parle avec une grammaire généralement correcte. Écoute un discours et comprend à plus de 90 %.	Copie verbalement 5 chiffres en ordre croissant et 3 chiffres en ordre décroissant.	Dessine ou visualise ses soucis. Sait être un bon ami.

8 ans	Se balance sur 1 pied pendant 20 secondes. Fait du vélo à 2 roues. Utilise un couteau et une fourchette pour couper.	Montre sa compréhension d'une histoire familière.	Généralise les règles à des situations similaires. Ignore les distractions ; revient spontanément à la tâche après une interruption.	Est capable de se calmer lui-même en utilisant diverses stratégies. Capable de mentionner plus d'une solution à un problème. Devine l'intention de l'autre.
9 ans	Saute en avant puis s'arrête et se tient en équilibre sur un pied. Est capable de lancer une balle de tennis contre le mur et de l'attraper après 1 rebond, avec les 2 mains (6/10 essais). Capable de copier un losange vertical et un cylindre tridimensionnel.	Détecte le sens implicite. Décrit les expériences avec l'idée principale, les pensées et les sentiments. Parle de ce qu'il a appris à l'école.	Avec l'aide des parents, lorsqu'il est calme, il dit qu'il a utilisé avec succès une compétence dans une expérience difficile.	Comprend que les gens peuvent avoir des interprétations différentes des événements. Réagit de manière apaisante à la détresse de quelqu'un.
10 ans	Marche en avant, en tandem. Est capable de lancer et attraper après 1 rebond (8/10).	Est capable de s'exprimer lors de discussion en groupe. Décrit les expériences avec détails.	Effectue la routine matinale sans incitation.	Sait ce qui a provoqué son émotion négative. Reste calme lorsqu'il est provoqué. S'abstient de commentaires grossiers. S'adapte rapidement aux changements inattendus.
11 ans	Est capable de lancer et d'attraper sans rebond (6/10).	Rend les présentations orales intéressantes en utilisant le langage corporel.	Lors de sa préparation aux examens, est capable de déterminer quelles informations sont importantes.	Choisit spontanément la restitution. Réaliste quant à ses forces et ses faiblesses. Réceptif au coaching du parent et du clinicien.
12 ans	Est capable de lancer et d'attraper sans rebond (7/10). Peut copier un losange horizontal pré-dessiné.	Pense à ce que les autres ressentent en regardant et en écoutant pendant une conversation.	Parfois, pense à « et si » lorsqu'il choisit des solutions à un problème ; il généralise parfois la règle à de nouvelles situations. Se concentre sur ses devoirs pendant 30 minutes et des tâches de 15 minutes. Se souvient de ce qu'il doit apporter à l'école et en emporter.	Peut remettre en question ses pensées négatives comme stratégie d'adaptation à la détresse ; commence à prendre une perspective précise ; prend en compte l'intention pour juger le bien du mal. Ajuste ses actions en fonction de l'impact sur les autres. Effectue les tâches routinières presque autant que les parents.

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Psychosocial History

In any interaction, clinicians must carefully consider their own biases and socioeconomic and cultural influences. Creating an environment of cultural safety and cultural humility requires awareness, evaluation and ongoing reassessment.

Social history taking in younger children should focus on family structure and dynamics (including discipline, school performance and enjoyment, extracurricular activities and peer relationships with attention to bullying). Discussions shift as the child matures and are tailored to the age and maturity of the child and considers anticipated changes.

It is important to discuss the changing nature of the adolescent's relationships with peers and family and to inquire about school, work and social groups. The HEADSSS (Home, Education and Employment, Activities, Drugs and Dieting, Sexuality, Suicide and Depression, Safety-violence and Abuse) questionnaire is a guide for psychosocial interview for adolescents and is included in the supplementary resource pages for easy reference. Questions have been updated to be more open-ended and less negative.^{14 34 35}

Strengths Questions

Too often the medical visit focuses on problem-solving and screening for adverse issues. Strengths questions are included to identify, reinforce and build on positive attributes to help build resiliency.

^{36,37,3839} A validated screening tool for both Strengths and Difficulties is available in many languages.⁴⁰

Strengths Questions (examples) to promote positive communication and to help build resiliency.	
	What do you enjoy doing?
	How would you describe yourself?
	How would your best friend describe you?
	What things are you proud of?
	What are you good at?
	What do others admire about you?
	What is something someone said that made you feel really good about yourself?
	Resources
	https://publications.aap.org/aapbooks/book/574/chapter-abstract/5815923/The-SSHADESS-Screen-A-Strength-Based-Psychosocial-ebooks.aapublications.org/content/reaching-teens-strength-based-communication-strategies-to-build-resilience-and-support-healthy-adolescent-development

Questions sur les attributs positifs (exemples) pour promouvoir une communication positive et aider à renforcer la résilience.	
	Qu'est-ce que tu aimes faire ?
	Comment te décrirais-tu ?
	Comment ton meilleur ami te décrirait-il ?
	De quelles choses es-tu fier ?
	Qu'est-ce que tu fais bien ?
	Qu'est-ce que les autres admirent chez toi ?
	Peux-tu mentionner quelque chose qu'une autre personne a dit et qui t'a vraiment fait sentir bien dans ta peau ?
	Ressources
	https://publications.aap.org/aapbooks/book/574/chapter-abstract/5815923/The-SSHADESS-Screen-A-Strength-Based-Psychosocial-ebooks.aapublications.org/content/reaching-teens-strength-based-communication-strategies-to-build-resilience-and-support-healthy-adolescent-development

HEADSSS - a mnemonic for interviewing adolescents	
Home	
	Where do you live? Who lives with you? How do the people in your home/family get along?
	Do you have any problems or arguments with your parents? Family members?
	Do you feel safe at home?
Education and Employment	
	How are things at school? What do you like/not like about school?
	Are you happy with your grades? Have your grades changed recently?
	Do you feel safe at school?
	Do you have a job? Do you work evenings or weekends? How many hours do you work?
	Do you ever miss classes?
	Have you ever had any problems with or gotten into trouble at school?
	What would you like to do after you finish school?
Activities	
	Do you have a friend or friends you can count on? Confide in?
	What do you do for fun?
	What are your hobbies?
	Do you exercise? Do you participate in sports?
Drugs, Substances and Dieting	
	Do you drink coffee, tea, or caffeine containing drinks?
	Do you drink alcohol? Do you smoke? Any cannabis or drugs? Have you ever tried drugs?
	How frequently do you use these? How do you pay for it?
	Do you have any friends who smoke, drink alcohol or do drugs?

	Have you ever been in a car driven by someone who was drunk or high? Including yourself?
	Are you happy with your body? Is there anything you would like to change if you could? Are you satisfied with your weight? Have you ever dieted, exercised or used drugs to change your weight?
Sexuality	
	(see Sexual History in the Greig Health Record)
	How do you identify? What are your pronouns?
	Are you attracted to men, women or people who identify in other ways?
	Do you have any concerns or questions about your physical/sexual development?
	Have you ever had any kind of sexual contact or relations? How old were you the first time?
	Have you ever been forced to have sex?
	Are you dating?
	Are you sexually active? What kind of sexual contact have you had?
	Do you use protection for sexually transmitted diseases or birth control?
	Have you ever been pregnant?
Suicide (and depression)	
	Do you feel stressed or worried much of the time?
	Do you feel down or depressed much of the time?
	For how long have you felt this way?
	Have you ever felt that life was not worth living?
	Have you thought of hurting yourself?
	Have you ever tried to harm yourself?
Safety (violence and abuse)	
	Do you or have you ever felt you were not safe? What makes you feel unsafe?
	Have you ever seen or been the victim of violence?
	Is there a gun in your home?
	Have you ever been in trouble with the law?
	Do you wear a seat belt?

Adapted from Sacks D, Westwood M Paediatrics & Child Health 2003;8:554-6, istopsuicide.org

HEADSSS — une mnémonique pour interviewer des adolescents	
Habitation – Maison et chez-soi	
	Où habites-tu ? Qui y habite ? Comment ça se passe chez toi ?
	As-tu des problèmes ou disputes avec tes parents ? Avec les membres de la famille ? Chez toi ?
	Te sens-tu en sécurité chez toi ?
Éducation et emploi	
	Comment les choses se passent-elles à l'école ? Qu'est-ce que tu aimes/n'aimes pas à l'école ?
	Es-tu satisfait de tes notes ? Tes notes ont-elles changé récemment ?
	Te sens-tu en sécurité à l'école ?
	As-tu un emploi ? Travailles-tu les soirs et les fins de semaine ?
	Combien d'heures travailles-tu ?
	Est-ce qu'il t'arrive de manquer tes cours ?
	As-tu déjà eu des problèmes ou des ennuis à l'école ?
	Qu'aimerais-tu faire après avoir terminé tes études ?
Activités	
	As-tu des amis sur qui tu peux compter ? As-tu un confident ?
	Que fais-tu comme loisirs ?
	Quels sont tes passe-temps ?
	Fais-tu de l'activité physique ? Du sport ?
Drogues, substances et régimes amaigrissants	
	Bois-tu du café, du thé ou des boissons gazeuses caféinées ?
	Consommes-tu de l'alcool ? Fumes-tu ? Du cannabis ou des drogues ?
	As-tu déjà essayé des drogues ?
	À quelle fréquence consommes-tu ? Comment t'es-tu procuré l'argent pour acheter cette drogue ?
	As-tu des amis qui fument, ou qui consomment de l'alcool et/ou des drogues ?
	As-tu déjà été dans une voiture conduite par une personne ivre ou droguée ? Toi y compris ?

	Es-tu satisfait de ton corps ? Y a-t-il quelque chose au sujet de ton corps que tu aimerais changer si tu le pouvais ? Es-tu satisfait de ton poids ? As-tu déjà suivi un régime, fait de l'exercice ou pris des médicaments pour modifier ton poids ?
Sexualité	
	(voir Antécédents de santé sexuelle dans le Greig Health Record)
	À quel sexe t'identifies-tu ? Quels sont tes pronoms ?
	Es-tu attiré par les hommes, les femmes ou les personnes qui s'identifient autrement ?
	As-tu des préoccupations ou des questions concernant ton développement physique/sexuel ?
	As-tu déjà eu des contacts ou des relations sexuelles ? Quel âge avais-tu la première fois ?
	As-tu déjà eu des relations sexuelles contre ton gré ?
	Est-ce que tu sors avec quelqu'un ?
	Es-tu actif sexuellement ? Quel type de contact sexuel as-tu eu ?
	Quels moyens utilises-tu pour te protéger contre les infections transmissibles sexuellement et contre les grossesses non désirées ?
	As-tu déjà été enceinte ?
Suicide (et dépression)	
	Te sens-tu stressé ou inquiet la plupart du temps ? Depuis quand ?
	Tu sens-tu déprimé la plupart du temps ? Depuis quand ?
	As-tu déjà pensé que la vie ne valait pas la peine d'être vécue ?
	As-tu déjà pensé à te faire du mal, à te blesser volontairement ?
	As-tu déjà essayé de te faire du mal et/ou de te blesser ?
Sécurité (violence et abus)	
	Sens-tu ou as-tu déjà senti que tu n'étais pas en sécurité ?
	Y a-t-il quelque chose qui t'effraie particulièrement ?
	As-tu déjà été témoin ou victime de violences ?
	Y a-t-il une arme à feu chez toi ?
	As-tu déjà eu des démêlés avec la justice ?
	Portes-tu une ceinture de sécurité en voiture ?

Adapté de Sacks D, Westwood M Paediatrics & Child Health 2003;8:554-6 Istopsuicide.org

Adverse childhood experience

Cumulative exposure to adverse events and circumstances in childhood can have lasting impacts on child development and long-term health into adulthood. Adverse childhood experiences (ACE) include abuse, neglect and family issues with mental health and substance use. Children with more ACEs have higher rates of infections, asthma, obesity, somatic complaints, educational issues. Adolescents are at higher risk of behavioural issues and risky behaviours. Adults have more cancer, diabetes, heart disease, mental illness, sexual risk behaviours and substance abuse. The negative effects of ACEs can be mitigated by protective factors. Nurturing family and community relationships are important for developing resilience. Family interventions include the development of a nurturing parenting style, stable household routines which create feelings of safety in young children. Community factors include pregnancy and newborn home-visiting programs, intimate partner violence prevention programs, social support for parents, high quality childcare and financial support for lower income families. Office practice can promote resilience through the creation of a medical home; that is creating longitudinal relationships, providing behavioural health care and guidance and directing access to community resources^{41, 42, 43}. Awareness of these issues can allow for screening with validated accessible tools.⁴⁴ ACEs can be summarised into categories of Abuse, Neglect and Household Disruption or Dysfunction.

Adverse childhood experiences
Experiencing physical, emotional abuse or neglect or sexual abuse
Living with someone who abuses drugs or alcohol
Living with someone who is or has been in prison
Living with someone who has serious mental illness

Being exposed to domestic violence
Loss of a parent – divorce, death or abandonment

Adapted from Jacob et al. Paediatrics & Child Health 2019;24 (1):30-36.

Positive childhood experiences
Feeling able to talk to family about feelings
Feeling supported by family during difficult times
Enjoying participating in community traditions
Feeling a sense of belonging during secondary school
Feeling supported by friends
Having at least 2 adults (not including parents) who have a genuine interest in the child / adolescent
Feeling safe and protected by an adult you live with

Adapted from Bethell Cs. JAMA Pediatr. 2019;173(11):e193007

Expériences négatives de l'enfance
Être victime de violence physique, émotionnelle, de négligence ou de violence sexuelle.
Vivre avec quelqu'un qui abuse de drogues ou d'alcool.
Vivre avec quelqu'un qui est en prison ou est allé en prison.
Vivre avec quelqu'un qui souffre d'une maladie mentale sérieuse.
Être exposé à la violence domestique.
Perte d'un parent — divorce, décès ou abandon.

Adapté de Jacob et al. Paediatrics & Child Health 2019;24 (1):30-36.

Expériences positives de l'enfance
Se sentir capable de parler de ses sentiments à sa famille.
Se sentir soutenu par sa famille dans les moments difficiles.
Aimer participer aux traditions communautaires.
Ressentir un sentiment d'appartenance au secondaire.
Se sentir soutenu par des amis.
Avoir au moins 2 adultes (sans compter les parents) qui ont un réel intérêt pour l'enfant/l'adolescent.
Se sentir en sécurité et protégé par un adulte avec qui tu vis.

Adapté de Bethell Cs. JAMA Pediatr. 2019;173(11):e193007

Positive Childhood Experiences

Positive childhood experiences (PCE) serve to ameliorate the effects of ACEs. A study of positive childhood experiences found that PCEs result in better adult mental health and healthier adult relationships. There was a dose-response association between PCEs and these positive effects, irrespective of the number of ACEs experienced.^{45 46 47}

Effective Discipline and Positive Parenting

Age-appropriate anticipatory guidance can be given to parents for discipline issues and positive parenting strategies. It is important to emphasize that effective discipline includes providing encouragement for positive behaviours and clear consistent communication of limits and rules. Harsh parenting is associated with poorer health in adolescents and younger children alike; while positive parenting encourages resiliency.^{48 49} Parent handouts on this topic are available.

Relational Care

Office-based counselling can promote resilience by providing parenting guidance on relational care, which can be done in short appointments.^{50 51 52}

Relational care is the safe, stable, and nurturing relationships that parents/caregivers give the child. It includes coaching the child to learn regulation (ie self-calming and seeking calming from trusted caregivers) and other core life skills (such as attention control, problem-solving, and perspective taking). These skills alter brain structure to foster physical and mental health in childhood and optimal adult functioning, even when there have been adverse childhood experiences such as neglect and when the child has had chronic stress responses from social determinants of health such as poverty. ^{50 51 53 54} Five basic universal parenting strategies are described. ⁵⁵

Five Universal Parenting Strategies	
Warmth	to give attention, love, caring
Empathy	communicate with word, body language, co-regulation of emotions
Structure	through household rules, predictable daily routines with consistent sequence, nutrition, sleep, physical activity
Safety	structure, protection including shelter, avoiding creating fear
Caregiver qualities	self regulation, maintain physical and mental health, external supports

Adapted from Dosman & Gallagher Paediatr Child Health 2022;27(6):327

Cinq stratégies parentales universelles	
Chaleur	donner de l'attention, de l'amour, de l'attention.
Empathie	communiquer avec la parole, le langage corporel, la co-régulation des émotions.
Structure	par des règles à la maison, des routines quotidiennes prévisibles avec une séquence cohérente, la nutrition, le sommeil, l'activité physique.
Sécurité	structure, protection incluant un toit, évitant de créer la peur.
Qualités de l'aidant	autorégulation, maintien de la santé physique et mentale, soutiens externes.

Adapté de Dosman & Gallagher Paediatr Child Health 2022;27(6):327

Effective Discipline and Positive Parenting	
Canadian Paediatric Society	https://caringforkids.cps.ca/handouts/behavior-and-development/positive-discipline-for-young-children
Alberta Health	https://www.albertahealthservices.ca/assets/info/amh/if-amh-scsf-positive-parenting-handout.pdf
American Academy of Pediatrics	https://www.healthychildren.org/English/family-life/family-dynamics/communication-discipline/Pages/Disciplining-Your-Child.aspx

Discipline efficace et parentalité positive	
Société Canadienne de Pédiatrie	https://soinsdenosenfants.cps.ca/handouts/behavior-and-development/positive-discipline-for-young-children

Social Prescribing

Social prescribing is a term that originated in the United Kingdom in the early part of the last century. Social prescribing is “a means for trusted individuals in clinical and community settings to identify that a person has non-medical, health-related social needs and to subsequently connect them to non-clinical supports and services within the community by co-producing a social prescription—a non-medical prescription, to improve health and wellbeing and to strengthen community connections” ^{56 57} In other

words, it is “ a practical way for health professionals to address social determinants of health.” ⁵⁸ Areas for intervention include mental health, social support systems, finances, housing, physical activity, and creative outlets (e.g., art, photography classes). Social prescribing has been shown to reduce utilization in primary care and emergency departments. Initiatives have begun in Canada to facilitate connection between health care providers and community-based resources and to aid in the provision of social prescribing. ⁵⁹ ⁶⁰ For younger children, connecting their families to community resources can improve health outcomes. For youth, a more direct connection can be made.

Social Prescribing
Centre for Effective Practice – Tool https://tools.cep.health/tool/social-prescribing/
Canadian Institute for Social Prescribing – Getting Involved https://www.socialprescribing.ca/

Considerations for Specific Populations

Children who are Differently Abled

This group encompasses those with a range of physical, mental, intellectual or sensory impairments. Disabilities may be congenital or acquired. Unicef estimates 15 percent of the world’s population lives with disability. They assert, “No matter their story, every child has every right to thrive.” Surmounting barriers to access, fostering inclusivity, and fighting discrimination are crucial in creating equitable societies.⁶¹ Clinicians are ideally situated to promote these ideals. The Canadian Paediatric Society’s Mental Health and Developmental Disabilities Committee provides guidance.⁶²

Families Living in Poverty

Approximately one child in five in Canada lives in poverty. ⁶³ The condition of low-income is more prevalent in families that are headed by a lone female parent, immigrant, racialized, Indigenous or have a disabled child. Poverty has significant effects on Canadian children. Low socio-economic status is associated with higher rates of infant mortality, childhood asthma, overweight and obesity, injuries and death from injury, and poor mental health incomes including learning and emotional disorders. Children growing up in low-income families have poorer adult health including physical disability, clinical depression and premature death. ⁶⁴ ⁶⁵ Children and adolescents from socioeconomically disadvantaged backgrounds are 2-3 x more likely to suffer from mental health issues compared with those from more advantaged backgrounds.⁶⁶

In addition, food insecurity is associated with mental health issues and substance use in youth.⁶⁷ ⁶⁸ ⁶⁹ The effects seem to be related to distress from financial strain as opposed to dietary deficiencies.⁷⁰

The Centre for Effective Practice has a screening tool “Poverty: A Clinical Tool for Primary Care Providers”. The screening question recommended to ask parents is, “Do you ever have difficulty making ends meet by the end of the month?”, for which the sensitivity is 98% and specificity is 40% for detecting those living below the poverty line. The guide further offers clinicians links to province specific resources, recognizing that handouts and weblinks are not always helpful in disadvantaged populations.

⁷¹ The usefulness of universal screening in adolescents has not been adequately studied. Further study is required to develop a validated screening tool for this age group.⁷²

The Equitable Preventive Practice Initiative in Canada (EPPIC) recommends poverty screening based on a weak recommendation and moderate quality evidence.⁷³ The GHR now includes a recommendation to ask parents and caregivers about poverty.

Poverty Screen - “Do you ever have difficulty making ends meet by the end of the month?”	
<i>Screening Recommendation</i> - Ask parents and caregivers	
Yes = may be living below the poverty line	98% sensitivity, 40 % specificity
Consider	Short and long-term health consequences
Offer	Assistance with accessing resources for filing taxes and collecting benefits
Consult CEP tool – Poverty: a clinical tool for primary care providers	cep.health/clinical-products/poverty-a-clinical-tool-for-primary-care-providers

Dépistage de la pauvreté — « Avez-vous parfois du mal à joindre les deux bouts à la fin du mois ? »	
<i>Recommandation de dépistage</i> — Demandez aux parents et aux tuteurs	
Oui = vit peut-être en dessous du seuil de pauvreté	Sensibilité 98 %, spécificité 40 % (en anglais)
Considérer	Conséquences sur la santé à court et à long terme.
Offrir	Assistance pour accéder aux ressources pour déclarer ses impôts et percevoir ses prestations.
Consulter l’outil CEP — Poverty: a clinical tool for primary care providers (en anglais seulement)	cep.health/clinical-products/poverty-a-clinical-tool-for-primary-care-providers

Refugees and Newcomers to Canada

Refugees and newcomers to Canada may also be at a disadvantage. Challenges are myriad. Issues arise in the health care system, not only related to poverty. Depending on circumstances, these may include language and cultural barriers, differences in health literacy and expectations, endemic disease exposures, as well as personal and generational trauma. A particularly comprehensive clinician resource called Kids New to Canada is available from the Canadian Paediatric Society.⁷⁴ The University of Minnesota has a Resource Centre which highlights management challenges for recent refugees such as lead poisoning in those from Afghanistan and vaccination updates and tuberculosis testing in those from Ukraine.⁷⁵ The GHR has a table of resources.⁷⁶

Refugees and Newcomers – selected resources	
Caring for Kids New to Canada	www.kidsnewtocanada.ca/beyond/resources
Canadian Collaboration Immigrant and Refugee Health	www.ccirhken.ca
CMAJ resources	www.cmaj.ca/cgi/collection/canadian_guidelines_for_immigrant_health
Interim Federal Health Program	https://www.canada.ca/en/immigration-refugees-citizenship/services/refugees/help-within-canada/health-care.html

Best Start – Working with Newcomer Families	https://www.beststart.org/resources/hlthy_chld_dev/pdf/Growing_up_new_land_FINAL.pdf
Newcomers and Developmental disabilities	https://www.cfp.ca/content/64/8/567
Immunization schedule	https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-3-vaccination-specific-populations/page-10-immunization-persons-new-canada.html

Bhayana Can Fam Phys Aug 2018 p567 <https://www.cfp.ca/content/64/8/567>

Réfugiés et nouveaux arrivants — ressources sélectionnées	
Les soins aux enfants néo-canadiens	https://enfantsneocanadiens.ca/
Collaboration Canadienne pour la santé des immigrants et des réfugiés	https://ccirhken.ca/
Soins de santé — Réfugiés Le Programme fédéral de santé intérimaire (PFSI)	https://www.canada.ca/fr/immigration-refugies-citoyennete/services/refugies/aide-partir-canada/soins-sante.html

Indigenous Populations

For the purposes of this article, the term indigenous refers to First Nations, Métis and Inuit individuals residing within the boundaries of Canada. It is important to note that many Indigenous people do not consider themselves Canadian as they have lived in this land long before Canada became a country and consider themselves part of their own sovereign nations alone.⁷⁷ Clinicians are encouraged to examine their own biases and assumptions. Approaching these communities with heightened cultural sensitivity can serve to bridge gaps. Again, a strengths-based approach is recommended. Furthermore, *“within and across Indigenous communities, there are diverse ways individuals may identify and connect with their culture and heritage. It is important to approach clinical care with openness, recognizing that a person's relationship with their identity and culture may evolve over time.”* An upcoming Position Statement from the Canadian Paediatric Society's First Nations, Inuit and Métis Health Committee will address the value of adding, to existing HEADSSS psychosocial history, questions reflecting a tailored approach for Indigenous people, under the headings, Home, Heritage and Healthy Living. These will be added to the Greig Health Record resources when available.⁷⁸

Challenges to health and well-being, stem from inadequate resources and generational issues that are rooted in colonialism and its long-lasting effects. Providing care requires cultural sensitivity and services must be tailored to the special needs of these families and nations. Research is ongoing to develop a “holistic, multigenerational approach”.⁷⁹

Issues are manifold. They include poverty, housing issues, food insecurity, and racism, including systemic racism, micro-aggressions and marginalisation. Individuals and communities suffer from higher rates of violence, suicide and substance use.^{80 81 82} The lasting impact of adverse childhood experiences and poverty are evident. First nations families are over-represented in the child welfare system.⁷⁵ Female adults and adolescents have less access to primary providers and are more likely to receive care for non-urgent issues in urgent care settings. This also applies to individuals who are “off-reserve.”⁸³ Life-expectancy is reduced. “In 2011, life expectancy at age 1 for the male household population was 72.5 years for First Nations, 76.9 years for Métis, 70.0 years for Inuit and 81.4 years for non-Indigenous people. Among the female household population, life expectancy at age 1 was 77.7 years for First

Nations, 82.3 years for Métis, 76.1 years for Inuit and 87.3 for non-Indigenous people.”⁸⁴ Infant mortality is more than double the general population and rates of sudden infant death syndrome (SIDS) are more than 7-fold greater.⁸⁵ Rates of unintentional injury and death from injury are high.⁸⁶

Nutritional challenges and barriers are explored below, as are higher rates of Type 2 diabetes and Vitamin D deficiency. Traditional diets are associated with improved food quality.

Factors for resilience include connection with traditional culture, languages and land as well as positive interpersonal relationships with families and role models. ^{87 88}

Resources for Indigenous Peoples	
Hope for Wellness Helpline (Indigenous Mental Health)	1-855-242-3310 https://www.hopeforwellness.ca/
Government Services and Information	https://www.canada.ca/en/services/indigenous-peoples.html
Native Youth Sexual Health Network	https://www.nativeyouthsexualhealth.com/

Ressources pour les peuples autochtones	
Ligne d'écoute d'espoir pour le mieux-être	1-855-242-3310 www.espoirpourlemieuxetre.ca
Services gouvernementaux et information	https://www.canada.ca/fr/services/autochtones.html

2SLGBTQI+

Sexual and gender minorities and people who self-identify differently from the majority of individuals, face unique challenges. See heading below.

Peer relationships

Bullying

When asking about peer relationships, a clinician should also ask about negative experiences, including bullying. Bullying is defined as: “a form of aggression in which one or more children repeatedly and intentionally intimidate, harass, or physically harm a victim who is perceived as unable to defend herself or himself.”⁸⁹ It includes physical and verbal aggression. Bullying also includes more subtle, relational aggression that uses manipulations of relationships and reputations to harm another child.⁹⁰ Technology-assisted bullying is known as cyber-bullying. ⁹¹

Victims of bullying are at higher risk for self-harm even before adolescence and may suffer long-term sequelae into adulthood.⁹² Involvement in bullying, whether as victim or perpetrator, is associated with an increased risk of suicidal ideation and suicidal behaviours.⁹³ School-age children who experience severe victimization by peers have 3.5 times the risk of suicidality, 3.3 times the risk of generalized anxiety and 2.6 times the risk of debilitating depression later in adolescence.⁹⁴ Bullies themselves are more likely to be incarcerated, unemployed or have dysfunctional long-term relationships later in life. ⁸⁹

⁹² Parenting initiatives such as cognitive stimulation and emotional support are effective measures for primary prevention of bullying. ⁸⁹ Cognitive stimulation and attending to early cognitive deficits such as language problems, imperfect causal understanding and poor inhibitory control are helpful strategies, possibly because children with these difficulties also have decreased competence with peers (which can, in time, lead to them to exhibit bullying behaviours). Certain parenting styles are associated with bullying. ⁹⁵ Health care providers can promote improving parenting skills. The GHR has a table of resources for bullying.

Bullying – resources	
Comprehensive Canadian Resource – includes Bullying, Cyberbullying, Healthy Relationships, Dating Violence	https://www.preynet.ca/
Mental Health resources, Crisis support, Tips and information, Support service directory	https://kidshelpphone.ca/ Text “CONNECT” to 686868 Call 1-800-668-6868
Cyberbullying, Internet Safety	https://www.safekids.com/ https://www.healthychildren.org/English/family-life/Media/Pages/Cyberbullying.aspx
Includes prevention videos for kids	https://www.stopbullying.gov/

Intimidation et Santé Mentale	
Intimidation, Sécuritaire en ligne, Information pour Enfants et Ados	https://www.preynet.ca/
Aide par téléphone, texte et en ligne, Information sur la santé mentale	https://jeunessejeecoute.ca/ Texte PARLER au 686868 Composer 1 800 668-6868

Abuse

Health care providers are recommended to maintain vigilance for signs or symptoms of abuse, maltreatment and neglect. Abuse may be physical, emotional or sexual. During primary school, children who experience abuse often have poor academic performance or concentration, show a lack of interest in school life, have difficulty forming or limited friendships or are frequently absent from school. Adolescents may suffer from depression, anxiety or social withdrawal. They may also run away from home or engage in risky behaviours such as substance use, early sexual activity, prostitution, street-involvement, gang activities or carrying guns. ⁹⁶ Reporting suspected child abuse is mandatory in Canada. It may include physical, sexual, emotional and mental maltreatment or exposure to pornography, exposure to family violence, or neglect. The Canadian Medical Protective Association has guidance on how and when to report. ⁹⁷

The most recent update to the USPSTF recommendation continues to conclude that there is insufficient evidence to assess the benefits and harms of population screening intervention. However, they also state that children with signs and symptoms of abuse should be reported as per applicable laws. Again, conclusion about asymptomatic population screening does not apply in cases of children with signs or symptoms of abuse. ⁹⁸

Child abuse prevention is a complex issue requiring a multi-faceted approach. The sites of intervention can be local, national, school-based, family-focused and the child’s medical home. Clinicians are in a

unique position, with knowledge of children and their families. As such, they can provide anticipatory guidance. This is best done by having regular visits, assessing families' strengths and deficits (including child factors, parental resilience and environmental stressors), and directing them to community resources.⁹⁹ Risk and protective factors for child abuse are outlined by the CDC.¹⁰⁰ Guidance is available in cases of suspected abuse.^{101 102 103}

Family Psychosocial History
Living circumstances. Who lives in the home.
Family history of mental health issues, substance abuse, intimate partner violence.
Parental adverse childhood experiences
Poverty or financial issues
Discipline strategies, effective discipline, limit setting
Conflict resolution strategies, non-violent conflict resolution

Adapted from Flaherty EG, Stirling J Jr; Pediatrics. 2010;126(4):833-841

Child Abuse and Neglect – resources
Risk and Protective factors https://www.cdc.gov/child-abuse-neglect/risk-factors/index.html
Prevention - https://www.cdc.gov/child-abuse-neglect/prevention/index.html
Parent/Caregiver Strategies – Reducing the Risk https://protectchildren.ca/en/resources-research/keeping-kids-safe/

Antécédents familiaux psychosociaux
Circonstances de vie. Qui habite à la maison.
Antécédents familiaux de problèmes de santé mentale, de toxicomanie, de violence conjugale.
Expériences parentales défavorables pendant l'enfance.
Pauvreté ou problèmes financiers.
Stratégies disciplinaires, discipline efficace, fixation de limites.
Stratégies de résolution de conflits, résolution non violente des conflits.

Adapté de Flaherty EG, Stirling J Jr; Pediatrics. 2010;126(4):833-841

Maltraitance et négligence envers les enfants – ressources
Prévention, facteurs de risque et de protection (anglais) : https://www.cdc.gov/child-abuse-neglect/risk-factors/index.html
Stratégies des parents/tuteurs – réduire les risques : https://protectchildren.ca/fr/ressources-et-recherche/protéger-les-enfants/

Mental health

Adolescence is a time of emotional changes, peer pressures and risks for substance abuse, depression, anxiety and suicide. Anticipatory guidance should be given to the pre-adolescent as well as older children.

Screening for Depression and Anxiety

Depression is a common symptom in adolescents and up to 1 to 2% of children ages 7 to 11 years suffer from depression.¹⁰⁴ In 2023, 26% of Canadian adolescents rated their mental health as fair to poor.¹⁰⁵ Most health-guideline producing organizations recommend asking about emotional health.^{50 106 107 108} Regarding population screening the Canadian Paediatric Society (CPS) recommends asking about emerging mental health problems at well-child visits and addressing social determinants of health but no specific tools are recommended. Systematic reviews find insufficient evidence to make a recommendation.^{109 110} The Canadian Task Force on Preventive Health Care (CTFPHC) in their 1994

guideline recommended against population screening. An updated recommendation is expected in 2025.¹¹¹

By contrast, the US Preventative Services Task Force (USPSTF) recommends screening for major depressive disorder (MDD) in adolescents (Grade B recommendation) provided that there are resources for diagnosis and management. They find insufficient evidence make a recommendation for screening pre-adolescent children or for screening for suicide risk.¹¹²

The GHR recommends asking mental health but does not recommend routine preventive screening. It should be emphasized in children and youth who present with symptoms or behaviours suggesting depression or other mental health disorders, further investigation is recommended with validated screeners. The Centre for Effective Practice (CEP) tool is included for easy reference.¹¹³

Screening for Depression and Suicide Risk	
Age 12 years to 18 years	7 to 11 years
Screen for Major depressive disorder	Insufficient evidence
Screening for suicide risk – insufficient evidence	
When screening is done, there must be systems in place to assure accurate diagnosis and timely and appropriate follow up	

<https://www.uspreventiveservicestaskforce.org/uspstf/>

Screening for Anxiety	
Age 8 years to 18 years	7 or younger
Screen for Anxiety	Insufficient evidence

<https://www.uspreventiveservicestaskforce.org/uspstf/>

Dépistage de la dépression et du risque de suicide	
Âge 12 ans à 18 ans	7 à 11 ans
Faites un dépistage du trouble dépressif majeur	Preuves insuffisantes
Dépistage du risque de suicide – preuves insuffisantes	
Des systèmes doivent être en place pour assurer une évaluation diagnostique appropriée et un suivi opportun et approprié.	

<https://www.uspreventiveservicestaskforce.org/uspstf/>

Dépistage de l'anxiété	
Âge 8 ans à 18 ans	7 ans ou moins
Faites un dépistage de l'anxiété	Preuves insuffisantes

<https://www.uspreventiveservicestaskforce.org/uspstf/>

Note that the above refers to population screening for asymptomatic individuals. Clinicians should be aware of symptoms and behaviours that may suggest a risk for depression. Depression is common in children and adolescents and is associated with significant negative impact.

Evidence-based and validated screening tools are available. The PHQ-A is a validated tool for depression in adolescents.¹¹⁴ For quick screening for depression¹¹⁵ and anxiety, a simple 4 question tool, the modified Patient Health Questionnaire-4 is included in the resource pages for easy access.

Modified Patient Health Questionnaire (PHQ-4)				
Over the last 2 weeks how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
Anxiety				
1. Feeling nervous, anxious or on edge	1	2	3	4
2. Not being able to stop or control worrying	1	2	3	4
Depression				
3. Little interest or pleasure in doing things	1	2	3	4
4. Feeling down, depressed or hopeless	1	2	3	4
Positive screen:				
Anxiety (Q1+Q2 ≥ 3) Next step: if <18 years, screen with SCARED If > 18 years, screen with GAD 7	Depression (Q3+Q4 ≥ 3) Next step: screen with PHQ9A			
See CEP resource https://cep.health/clinical-products/youth-mental-health/ and https://www.phqscreeners.com/ and https://www.pediatricbipolar.pitt.edu/clinical-services/clinical-tools				

Questionnaire à évaluer la dépression et l'anxiété (PHQ-4)				
Au cours des deux dernières semaines, à quelle fréquence as-tu été dérangé(e) par les problèmes suivants ?	Jamais	Plusieurs jours	Plus de sept jours	Presque tous les jours
Anxiété				
1. Sentiment de nervosité, d'anxiété ou de tension.	1	2	3	4
2. Incapable d'arrêter de s'inquiéter ou de contrôler ses inquiétudes.	1	2	3	4
Dépression				
3. Peu d'intérêt ou de plaisir à faire les choses.	1	2	3	4
4. Sentiment de tristesse, de déprime ou de désespoir.	1	2	3	4
Dépistage positif				
Anxiété (Q1+Q2 \geq 3)		Dépression (Q3+Q4 \geq 3)		
Consulter les autres questionnaires : https://www.pediatricbipolar.pitt.edu/clinical-services/clinical-tools GAD 7 – pour \geq 18 ans, chez : https://www.phqscreeners.com/		Consulter les autres questionnaires PHQ9 : https://www.phqscreeners.com/		

For patients who present with symptoms or those who present with issues that may be related to depression or anxiety, such as school avoidance, fatigue, sleep issues to name just a few, more comprehensive screens are available.

A comprehensive depression screening and management tool is available at <https://cep.health/clinical-products/youth-mental-health/>.¹¹⁶ Included are screening tools, communication tips, and therapy options. Online resources are also available although some are specific to Ontario.¹¹⁷ Note that links to follow-up screens are included in the screening tools list.¹¹⁸ Mental health screening tools are also available through the CPS.¹¹⁹ The CPS also has a Position Statement for the diagnosis and management

of anxiety in children and youth.^{120 121} A list of validated screening tools is included in the Greig Health Record.

Screening for Suicide Risk

Surveys of Ontario high school students show that almost 40 % have had moderate to serious levels of psychological distress (depression, anxiety, social dysfunction) in the preceding 12 months, and a further 17 % have experienced even higher or serious levels. There is study showed a notable overlap among alcohol, drug use and mental health problems. A meta-analysis and systematic review of young people aged 12 to 26 years showed that affective disorders were predictive of risk of suicide attempts. Detection and management could be crucial to suicide prevention in this age group. The Ask Suicide-Screening Questions (ASQ) Toolkit is a validated tool.

Risk Factors for youth suicide
History of previous suicide attempts
Family history of suicide or violence
History of depression or other mental illness
Alcohol or drug abuse
Stressful life event or loss
Easy access to lethal methods
Exposure to the suicidal behaviour of others
Incarceration

<https://www.cdc.gov/suicide/factors/index.html>

Suicide — Facteurs de risque
Tentatives de suicide antérieures.
Antécédents familiaux de suicide ou de violence.
Antécédents de dépression ou autre maladie mentale.
Abus d'alcool ou de drogues.
Événement stressant de la vie ou perte.
Accès facile aux méthodes mortelles.
Exposition aux suicides et tentatives de suicide.
Incarcération.

<https://www.cdc.gov/suicide/factors/index.html>

Suicide Risk Screening Tools
ASQ https://www.nimh.nih.gov/research/research-conducted-at-nimh/asq-toolkit-materials

Outils de dépistage des risques de suicide
ASQ https://www.nimh.nih.gov/sites/default/files/documents/research/research-conducted-at-nimh/asq-toolkit-materials/asqtranslations/asq_french_translation.pdf

Mental Health Resources for Patients and Families	
General Information, Links	www.mindyourmind.ca https://www.aboutkidshealth.ca/mentalhealth https://www.camh.ca/en/health-info/ https://keltymentalhealth.ca/ https://www.ementalhealth.ca/ https://kidshelpphone.ca/ https://www.aacap.org/AACAP/Families_Youth/AACAP/Families_and_Youth/Home.aspx (US)

	https://kidshelpline.com.au/kids (Australian)
Online crisis and emotional support chat service	https://kidshelpphone.ca/ Text CONNECT to 686868 Call 1-800-668-6868
Mental Health Crisis and Suicide Prevention Line	Dial 988 in Canada Text - see 998.ca
Transgender crisis support	Transgender Crisis Line: 1-877-330-6366
Wellness, Stress, Substance Use	https://mytoolkit.ca/
App for create a safety plan, local resources	https://besafeapp.ca/

Ressources sur la santé mentale pour les patients et leurs familles	
Information générale	https://www.esantementale.ca/ https://www.aboutkidshealth.ca/fr/santementale https://jeunessejecoute.ca/
Ligne de crise en santé mentale et de prévention du suicide.	Composez le 988 au Canada Texte - voir 999.ca/fr
Aide par téléphone, texte et en ligne, Information sur la santé mentale et le suicide.	https://parlonssuicide.ca/ https://jeunessejecoute.ca/ Texte PARLER au 686868 Compose 1 800 668-6868

Learning About Anxiety
Anxiety Canada https://www.anxietycanada.com/
Anxiety in Children https://www.anxietycanada.com/learn-about-anxiety/anxiety-in-children/
Anxiety in Youth https://www.anxietycanada.com/learn-about-anxiety/anxiety-in-youth/
Anxiety Canada You Tube: What is Anxiety? https://www.youtube.com/watch?v=rp0lpKTWrp4&t=5s
MindShift CBT App https://www.anxietycanada.com/resources/mindshift-cbt/

En savoir plus sur l'anxiété
Anxiété Canada https://www.anxietycanada.com/fr/
L'anxiété chez les enfants https://www.anxietycanada.com/fr/en-savoir-plus-sur-lanxiete/lanxiete-chez-les-enfants/
L'anxiété chez les jeunes https://www.anxietycanada.com/fr/en-savoir-plus-sur-lanxiete/lanxiete-chez-les-jeunes/
MindShift TCC App https://www.anxietycanada.com/fr/resources/mindshift-tcc/

Substances and Addictions

This section has been revised and expanded to include substances as well as habits associated with signs of addiction.

Screening Recommendation and Tools

The U.S. Preventive Services Task Force (USPSTF) concludes that there is insufficient evidence to make a recommendation for screening for unhealthy alcohol use in adolescents.¹²² The USPSTF suggest that behavioural interventions may reduce tobacco and nicotine use in children and adolescents. This recommendation includes all forms of tobacco and nicotine products including e-cigarettes or vaping.

The evidence is insufficient to recommend specific primary care interventions for smoking cessation.¹²³

¹²⁴ While there is no direct evidence for the benefits and harms of screening for unhealthy drug use in adolescents, the USPSTF concludes with moderate certainty that in adults, age 18 and over, screening questions are beneficial.¹²⁵ The USPSTF also states there is insufficient evidence to assess behavioural counselling interventions for all age groups.¹²⁶

Nevertheless, most pediatric guidelines recommend screening for problems with substance use.^{127 128} The Greig Health Record also includes a consensus recommendation for screening.

The Substance Abuse and Mental Health Services Administration in the United States has produced guidelines for screening and treatment of adolescent substance use.¹²⁹ They list the following as evidence-based screeners: Screening to Brief Intervention (S2BI)¹³⁰, Brief Screener for Alcohol, Tobacco and Other Drugs (BSTAD)¹³¹, Alcohol Screening and Brief Intervention for Youth and the CRAFFT screen from the Boston Children's Hospital¹³².

For the purposes of the GHR, the CRAFFT 2.1+N screen is included. It is available in many languages and includes alcohol, drugs and nicotine. It includes vaping, e-cigarettes, prescription medications and inhaled and injectable products. Their research show that a self-administered questionnaire is better for comfort of and honesty from the adolescent. An adapted version of the self-administered version is reproduced here but we recommend the clinician review the additional information on how to administer, score and respond contained in the full versions.¹³²

It is emphasized that the clinician use praise and encouragement to support the adolescent's positive behaviours. Brief Intervention in the form of motivational interviewing in the case of mild to moderate risk is recommended.¹³² Motivational interviewing in the form of the 5 As also been used for smoking cessation, obesity counselling and chronic illness behaviour changes.^{133 134 135 136 137}

The Canadian Centre on Substance Use and Addiction and Health Canada have a number of tools for office counselling.^{138 139} It must be noted that evaluation for utility in youth counselling requires further study.

Counselling Tools for Substances and Addictions	
Alcohol Consumption Infographic	https://www.ccsa.ca/sites/default/files/2023-05/CGAH-Drinking-Less-is-Better-en.pdf
Smoking Cessation	https://www.canada.ca/content/dam/hc-sc/documents/services/healthy-living/road-quitting-young-adults-voie-reussite-jeunes-adultes/becoming-non-smoker-youth-guide-jeunes-devenir-non-fumeur-eng.pdf
Vaping – Talking to Teens	https://www.canada.ca/content/dam/themes/health/publications/healthy-living/vaping-mechanics-infographic/talking-teen-vaping-tip-sheet-parents.pdf https://caringforkids.cps.ca/handouts/preteens-and-teens/vaping
Opioids	https://www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/naloxone-sauver-une-vie.pdf
Opioids Naloxone – Save a Life	https://www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/naloxone-save-a-life.pdf

Talking to teens about drugs and alcohol	https://www.canada.ca/en/health-canada/services/substance-use/talking-about-drugs/talking-with-teenagers-about-drugs.html
Cocaine	https://www.ccsa.ca/sites/default/files/2023-01/3-Facts-for-youth-about-cocaine-en.pdf
Gambling guidelines	https://gamblingguidelines.ca/

Outils de conseil pour les substances et les dépendances	
Infographie sur la consommation d'alcool	https://www.ccsa.ca/sites/default/files/2023-05/CGAH-Drinking-Less-is-Better-fr.pdf
Cesser de fumer	https://www.canada.ca/content/dam/hc-sc/documents/services/healthy-living/road-quitting-young-adults-voie-reussite-jeunes-adultes/becoming-non-smoker-youth-guide-jeunes-devenir-non-fumeur-fra.pdf
Parler de vapotage à votre adolescent	https://www.canada.ca/content/dam/themes/health/publications/healthy-living/vaping-mechanics-infographic/parler-vapotage-adolescent-fiche-conseils-parents.pdf https://soinsdenosenfants.cps.ca/handouts/preteens-and-teens/vaping
Opioides	https://www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/consommation-problematique-opioides.pdf
La naloxone : sauver une vie	https://www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/naloxone-sauver-une-vie.pdf
Parler de la drogue et d'alcool avec les adolescents	https://www.canada.ca/fr/sante-canada/services/dependance-aux-drogues/drogues-parle/aborder-sujet-drogues-adolescents.html
Cocaïne	https://www.ccsa.ca/sites/default/files/2023-01/3-Facts-for-youth-about-cocaine-fr_0.pdf
Lignes directrices sur les habitudes de jeu	https://gamblingguidelines.ca/fr/

Alcohol

Alcohol use in the adolescent is different from adult drinking patterns in that they consume large amounts but on fewer occasions, termed binge drinking. U.S. data show that alcohol use, which had been in decline since the mid 1990s, has had a recent increase. High risk drinking in the adolescent is associated with accelerated decline in grey matter and reduced cognitive performance. Associated adverse outcomes include motor vehicle collisions, high-risk sexual behaviors, substance use and mental health challenges.¹⁴⁰

Social media can influence alcohol consumption in adolescents and young adults. Online displays of alcohol behaviour have been correlated with alcohol consumption and risky drinking.¹⁴¹

New alcohol consumption recommendations for Canadians were released in 2023, advising 2 or fewer standard drinks per week. These recommendations are based on increased risk of cancers and cardiovascular risks related to alcohol. An infographic is available but the utility in the paediatric population is not established.^{142 143}

Tobacco, nicotine and vaping

Cigarette smoking is decreasing. According to Canadian statistics, in 2021, 61 percent of adolescents ages 15 to 19 years, had never tried a cigarette. Conversely, vaping rates, including products containing nicotine, are increasing.¹⁴⁴

Tobacco

A 2015 Cochrane review found that authoritative parenting (a style of parenting involving showing strong interest and care for the adolescent, usually with rule setting) had a preventive effect on smoking. The authors suggested that family interventions could reduce those who tried smoking by 16 to 32%.¹⁴⁵ The tobacco industry estimates that if by the age of 18 one has never smoked, the odds are 3 to one that he never will. By age 24 the odds are 20 to 1.¹⁴⁶ The Canadian Task Force on Preventive Health Care recommends offering brief advice to avoid smoking initiation and advise cessation to those who have smoked in the last 30 days. This is a weak recommendation based on limited evidence as there is a lack of high-quality randomized controlled trials for the provision of this advice in primary care.¹⁴⁷ A strategy proposed to prevent use of tobacco by young people would be to raise the legal age to 21. In Canada those provinces which have raised the legal age to 19, the smoking prevalence is 11.7% compared with 14.8% in provinces with a legal age of 18 years. The US Institute of Medicine estimates raising the age further to 21 years would reduce smoking initiation in 15- to 17-year-olds by 25%.¹⁴⁶

Vaping

Use of e-cigarettes in youth is rising.¹⁴⁸ It is the most commonly used tobacco product delivery system, surpassing cigarettes and chewing tobacco.¹⁴⁹ Almost one third of Canadian youth vape, with one in 15 teens ages 15 to 19 years vaping daily.¹⁵⁰ The most common reason for vaping is to reduce stress.¹⁴⁴ Of those who report vaping, 87% used products containing nicotine.¹⁵¹ Legislation has been enacted to prevent the production of vaping devices targeted to young people including the promotions of certain flavours or youth or lifestyle directed advertising.¹⁵² These products can be used to deliver nicotine or tetrahydrocannabinol (THC). Both nicotine and THC have been shown to impact brain development. Vaping can be a gateway, increasing risk for future problematic drug use. Vaping is also associated with increased risk of depression, suicidal thoughts and moderate to severe anxiety.^{153 154} Use continues despite increasing reports of lung injury, now with the acronym EVALI. Vaping devices allow for delivery of high levels of nicotine; a concern because nicotine, aside from being highly addictive, can also adversely affect brain development.¹⁵⁵ The delivery systems themselves may cause injuries such as burns, lacerations and fractures.¹⁵⁶ Young children may be at risk from the presence of these products in the home either through accidental ingestion or exposure to the aerosolized products.^{157 158 159}

Increasingly e-cigarettes are coming under scrutiny for deleterious effects of vaporized components on lung function and use by children and youth is a particular concern. These devices deliver substantial amounts of particulates, toxins and heavy metals. Nicotine exposure in adolescence is associated with deleterious effects on the developing brain and can lead to decrease cognitive function and severe addiction.¹⁶⁰ E-cigarette manufacturers target adolescents with advertising, ease of access and flavourings that are appealing to young people such as fruit and candy.¹⁶¹ Those who use e-cigarettes are more likely to begin smoking tobacco.¹⁶² Nicotine cartridges are available in Canada but are not to be sold to those under 18 years.¹⁵² The New England Journal of Medicine has an informative website for health care providers on vaping related disease. <https://www.nejm.org/vaping>

Drug Use – Prescription and Non-prescription

Prescription medications such as opioids, sedatives and stimulants may be misused or abused and are readily available.¹⁶³

Canadian youth and young adults are at risk for exposure to opioids. Sources include the home medicine cabinet, friends and acquaintances, prescriptions from a physician and through the illegal market.¹⁶⁴

Approximately 4 % of adolescents use sedatives for non-medicinal use.¹⁶⁵ Stimulants are used by almost 5% of youth aged 15 to 19 years; this includes legitimate prescription use.¹⁶⁶ There is insufficient evidence at this time to recommend strategies to prevent or reduce this use.^{167 168}

Cannabis use

Cannabis use is common in Canadian youth and has been increasing. In the Canadian Cannabis Survey 2019 teens age 15 to 19, 44% reported using cannabis in the preceding 12 months compared with 36% in 2018.¹⁶⁹ For comparison, a 2015 survey of Ontario students in grades 7 to 12, 21.5% reported using in the previous year. Cannabis use was strongly associated with tobacco cigarette smoking and alcohol consumption.¹⁷⁰

Cannabis use in youth is not without risk. Increasingly cannabis is available with higher concentrations of tetrahydrocannabinol (THC) as compared to cannabidiol (CBD). There is strong evidence that heavy use is a risk factor for onset of psychosis, especially with high-THC/ low-CBD varieties. There is also evidence for an association with mania and suicide but evidence is insufficient for depression and anxiety.¹⁷¹ A study of youth in Ontario aged 10 to 24 years showed that cannabis-related emergency department visits increased almost fivefold from 2003 to 2017.¹⁷² Inadvertent ingestion of cannabis especially in the form of edibles is also a concern. Safer storage is recommended.^{173 174}

Safety while using is also a concern. Many high-school students report driving under the influence of cannabis and riding with a cannabis-impaired driver.¹⁷⁵ Over 2% of Canadian drivers in a 2012 survey, reported having driven under the influence in the preceding 30 days.¹⁷⁶ Driving under the influence is most common Canadian youth ages 18 to 19 followed by those 15 to 17 years of age. A lower perception of risk seems to be associated with and increased risk of this behaviour. Evidence suggests that education about risk may reduce this risky behaviour.¹⁷⁵

While avoiding cannabis altogether is recommended, in practice, youth are not always willing to quit. Harm reductions strategies may be helpful.¹⁷⁷ To this end, an evidence-based guide, the Lower-Risk Cannabis Use Guidelines (LRCUG) were developed. It should be pointed out that the first recommendation point advises abstinence. Further recommendations are focused on¹⁷⁸ A review of the evidence is found at https://www.camh.ca/-/media/files/lrcug_professional-pdf.pdf

Despite the introduction of these guidelines in 2017, there is little evidence to show impact. Surveys have been completed by youth (15 years and older) and adults, however surveys, by their nature, may not accurately reflect use. We do know that, despite these guideline recommendations, use is increasing, smoking remains the most common method used and frequent use and use of high-potency products are most common in youth and young adults.¹⁷⁹ On the other hand, counselling may reduce driving while high.¹⁷⁵ It is suggested that wider dissemination of the LRCUG may help to increase the impact.

Guidance from the Canadian Paediatric Society are focused on providing a safe and confidential environment to screen for cannabis use, considering cannabis as a contributing factor when youth complain of fatigue, low mood and sleep issues, praising non-users, counselling about the impact on the developing brain (up to age 25 years), counselling about cannabis effects on mood, providing support to decrease or stop use in cases of problematic use.¹⁸¹

These slightly different sets of recommendations are both outlined in the Greig Health Record.

Cannabis risk reduction
Avoid risks by choosing not to use
Delay starting using for as long as possible, more harms for teens, especially under 16 years
Choose products with lower THC content, or higher ratio of CBD to THC
Do not use synthetic cannabis products
Non-smoking options are less dangerous
If smoking, avoid inhaling deeply or holding your breath
Limit use, try for infrequent, occasional or at most once per week
Do not drive when using, avoid driving for at least 6 hours, avoid combining with alcohol
Avoid if you or your family have a history of psychosis or substance use issues
Do not use if pregnant
Avoid inadvertent ingestion of edibles. Label clearly and place in locked storage.

Adapted from www.camh.ca/-/media/files/lrcug_professional-pdf Health Canada

Réduction des risques liés au cannabis
Évite les risques en choisissant de ne pas consommer.
Évite de commencer à consommer le plus longtemps possible, plus néfaste pour les adolescents, surtout de moins de 16 ans.
Choisis des produits avec une teneur en THC plus faible ou un rapport CBD/THC plus élevé.
N'utilise pas de cannabis synthétique.
Les options non-fumeurs sont moins dangereuses.
Lorsque tu fumes, évite d'inspirer profondément ou de retenir ton souffle.
Limite la consommation, essaye une consommation rare, occasionnelle ou au maximum une fois par semaine.
Ne pas conduire en cas de consommation, éviter de conduire pendant au moins 6 heures, éviter de combiner avec de l'alcool.
À éviter si toi ou ta famille avez des antécédents de psychose ou de problèmes de consommation de substances.
Ne pas consommer si tu es enceinte.
Évite l'ingestion accidentelle de produits comestibles. Étiquète clairement et place-le dans un endroit verrouillé.

Adapté de www.camh.ca/-/media/files/lrcug_professional-pdf Santé Canada

Cannabis – Counselling guidelines
Provide a safe and confidential environment to screen for cannabis use
Ask about use of cannabis.
Praise non-users for choosing abstinence.
Consider cannabis as a contributing factor when youth complain of fatigue, low mood and sleep issues.
Provide support to decrease or stop use in cases of problematic use
Counsel about the impact on the developing brain (up to age 25 years)

Counsel about cannabis effects on mood and the potential for causing resurgence of depression or anxiety in those who have already experienced mood issues
--

Adapted from CPS <https://cps.ca/en/documents/position/counselling-adolescents-parents-about-cannabis-primer-for-health-professionals>

Cannabis – Lignes directrices pour les conseils
--

Créer un environnement sûr et confidentiel pour dépister la consommation de cannabis.

Poser des questions sur la consommation de cannabis

Féliciter les non-utilisateurs pour avoir choisi l'abstinence.
--

Considérer le cannabis comme un facteur contributif lorsque les jeunes se plaignent de fatigue, de mauvaise humeur et de problèmes de sommeil.
--

Aider à diminuer ou arrêter la consommation en cas d'usage problématique
--

Conseiller au sujet de l'impact sur le développement du cerveau (jusqu'à l'âge de 25 ans)

Conseiller au sujet des effets du cannabis sur l'humeur et la possibilité de provoquer une résurgence de la dépression ou de l'anxiété chez ceux qui ont déjà connu des problèmes d'humeur.

Adapté de CPS <https://cps.ca/en/documents/position/counselling-adolescents-parents-about-cannabis-primer-for-health-professionals>

Motivational Interviewing, 5As method
--

Ask - about behaviour, beliefs, knowledge

Advise - give specific information – health risks, benefits of change

Agree - collaboratively set goals, base on patient interest and confidence and de sa confiance dans sa capacité à changer de comportement

Assist - identify barriers, strategies, problem solving techniques, supports
--

Arrange - for follow up, specify plan Plan to include specific goals, strategies to address barriers

Adapted from [USPSTF](#)

Entrevue motivationnelle

Poser : des questions sur le comportement, les croyances, les connaissances.
--

Conseiller : donner des informations spécifiques (par exemple risques pour la santé, avantages du changement).

Accord : fixer des objectifs en collaboration, en fonction de l'intérêt du patient et de sa confiance dans sa capacité à changer de comportement.

Aider : identifier les obstacles, les stratégies, les techniques de résolution de problèmes et les soutiens.
--

Organiser : pour le suivi, préciser le plan. Planifier pour inclure des objectifs spécifiques et des stratégies pour surmonter les obstacles.
--

Adapté de [USPSTF](#)

CRAFT screening (download and print from craftt.org)
--

Scientifically validated

Screens for alcohol, other substances and nicotine, includes mention of vaping, hookahs, prescription drugs, inhaled, and injectable products
--

Available in multiple languages with two versions: a self-administered questionnaire and a clinician-led interview – with scoring and talking points
--

Research shows that a self-administered questionnaire is better for comfort of and honesty from the adolescent
--

Self-Administered Questionnaire https://craftt.org/get-the-craftt/
--

Clinician Interview https://craftt.org/get-the-craftt/
--

Dépistage CRAFFT (télécharger et imprimer craftt.org)
Validé scientifiquement
Les tests de détection d'alcool, d'autres substances et de nicotine incluent la mention du vapotage, des narguilles, des médicaments sur ordonnance, des produits inhalés et injectables.
Disponible en plusieurs langues avec deux versions : un questionnaire auto-administré et un entretien dirigé par un clinicien – avec notation et points de discussion.
La recherche montre qu'un questionnaire auto-administré est meilleur pour le confort et l'honnêteté de l'adolescent.
Questionnaire auto-administré https://craftt.org/get-the-craftt/
Entretien avec un clinicien https://craftt.org/get-the-craftt/

Caffeine Energy Drinks and Sports Drinks

Caffeine Energy Drinks (CED) and Sports Drinks (SD) are commonly consumed by youth and pose potential risks to the health of children and adolescents. While CEDs are marketed to increase energy and alertness, SDs claim to replenish electrolytes, supply carbohydrates, prevent dehydration and sustain endurance capacity during athletic activity.

In Canada, the maximum amount of caffeine allowed in CEDs is 180mg/serving or 400mg/L. By way of comparison, one 12oz (355ml) can of cola contains 36 to 46mg of caffeine; an 8oz (237ml) cup of coffee contains on average 135mg.¹⁸²

The maximum daily intake of caffeine for children and adolescents recommended by Health Canada is 2.5 mg/ kg/ day. However, it can be simplified to

- 4-6 years: 45 mg/day
- 7-9 years: 62.5 mg/day
- 10-12 years: 85 mg/day
- 13+ years: 2.5mg/kg body weight/day

There is concern about increasing use of CEDs in youth. Studies suggest youth have a lack of awareness of recommended daily intake maximums. They are also not aware that caffeine should not be consumed during intense physical activity due to a higher rate of adverse effects.¹⁸³

Physical side effects of caffeine include increased heart rate, blood pressure, temperature, speech rate, motor activity and gastric secretion, dehydration, insomnia and anxiety. Intoxication can lead to delusions, circulatory collapse and even death. Adverse effects of CEDs have been reported in Canadian children as young as 8 years of age.¹⁸⁴

CED consumption, particularly in combination with alcohol among teenagers, is associated with increased risk-taking behaviour, caffeine dependence, and may be a marker for higher risk of other substance use or abuse. The consumption of caffeinated energy drinks is problematic in youth who commonly combine them with alcohol and are more sensitive to their effects, especially if they are non-habitual users.^{185 186 187}

Children are more likely, compared with adults to develop dependence.¹⁸⁸ Symptoms of withdrawal are usually headaches, but withdrawal can manifest as fatigue, mood disturbances, irritability and difficulty concentrating.¹⁸⁴

Sports drinks are generally unnecessary for the average child engaged in routine or daily play-based physical activity. Due to their high sugar content, there is a small association with obesity, dental carries, slower gastric emptying and intestinal absorption. They may have a specific role in supporting adequate hydration in youth athletes during prolonged moderate to vigorous physical activity, however water is considered the best form of hydration.¹⁸⁴

Physicians should ask children and youth about their consumption of SDs and CEDs, particularly in combination with alcohol. They should education about the potential risks, and counsel to reduce or avoid use.

Caffeine use in children and youth	
Maximum recommended daily consumption (2.5mg/kg of body weight)	
•4-6 years: approx.	45 mg/day
•7-9 years: approx.	62.5 mg/day
•10-12 years: approx.	85 mg/day
•13+ years:	2.5mg/kg body weight/day
Caffeine in food and drink	
•Can of cola	36 to 46 mg
•Cup of coffee	135 mg
•Energy drink (one serving)	180mg
Health Canada https://www.canada.ca/en/health-canada/services/food-nutrition/supplemented-foods/caffeinated-energy-drinks.html CPS https://caringforkids.cps.ca/handouts/healthy-living/energy-drinks-and-sports-drinks HealthLinkBC https://www.healthlinkbc.ca/healthlinkbc-files/caffeinated-energy-drinks	

Consommation de caféine chez les enfants et les jeunes	
Apport quotidien maximal recommandé (2,5 mg par kilogramme de poids corporel)	
•4-6 ans : environ	45 mg/jour
•7-9 ans : environ	62,5 mg/jour
•10-12 ans : environ	85 mg/jour
•13 ans et plus :	2,5 mg/kg de poids corporel/jour
Caféine dans les aliments et les boissons	
•Canette de cola	36 à 46 mg
•Tasse de café	135 mg
•Boisson énergisante (une portion)	180 mg
Santé Canada https://www.canada.ca/fr/sante-canada/services/aliments-nutrition/aliments-supplementes/boissons-energisantes-contenant-cafeine.html CPS https://soinsdenosenfants.cps.ca/handouts/healthy-living/energy-drinks-and-sports-drinks	

Inhalants

Inhalant use is most common in adolescents, aged 13 to 14 years. Younger children tend to use solvents such as those found in markers. Older youth are increasingly using nitrous oxide. Nitrous oxide is readily

available and at low cost. Cannisters are easily purchased online. Chronic use can result in neuropathy, myelopathy and encephalopathy.¹⁸⁹

Illicit Drugs

Cocaine is used most frequently by young adults, ages 18 to 25 years. Recommendations for harm reduction include checking the cocaine for toxic adulterants, avoiding use with other drugs, not using alone, and carrying naloxone for emergency use.¹⁹⁰

Supplements and Complementary and Alternative Medicine (CAM)

The definition of complementary and alternative medicine (CAM) adopted by the Cochrane Collaboration is: “a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period”¹⁹¹. CAM can include herbs, homeopathic medicines, acupuncture, energy healing, yoga, special diets and biofeedback techniques¹⁹². Adolescents use herbs and dietary supplements more frequently than other forms of CAM.¹⁹³ The rate of CAM use is approximately 20 to 40 percent in healthy children and more than 50 percent in children with chronic, recurrent or intractable health conditions.¹⁹⁴ Physicians need to be aware of, enquire directly about and promote open discussion regarding CAM use. Possible interactions with prescription medications make it especially important to inquire routinely about CAM use. As with conventional therapies, the safe use of CAM products in adults does not ensure the same result in children and adolescents.¹⁹⁵

Screens and Digital Media

Television, screens and digital media

There can be significant benefits to digital media when selected to be age-appropriate, having purpose or value, viewed with family and watched with limitations on duration and value. Certain programming can be educational and screen-based learning can be used to facilitate both autonomous and collaborative learning. Even video games, when played with family or friends, can be a part of healthy social interaction and can have positive effects on executive functions and visual-spatial working memory. There may also be benefits in terms of problem-solving skills and relationships with fellow players. Some research suggests that on-line friendships may be more diverse and gender-inclusive. Finally low levels of recreational screen time (one hour per day) is associated with lower depression risk than having no screen time. Adolescents communicate online mainly with their offline friends, as opposed to strangers, and their behaviours closely reflect their offline behaviours. Communicating online allows them to stay in touch. Social isolation is reduced.¹⁹⁶

There are, however, significant risks. School-aged children often use computers in a centrally located home environment, for homework as well as recreation and socialization; however, surveys show that supervision may be absent and the potential for exposure to negative or harmful content exists. Ten percent of adolescents report frequently using social media to pretend to be someone they are not. Personal contact information may also be disclosed despite an assertion of knowing how to protect

themselves online. Concern exists for in-person meetings with people met online. Longer times spent online begin to have detrimental effects. Longer duration is associated with decreased physical activity and increased weight. Use of screens before bed, and having phones in the bedroom is detrimental to sleep.¹⁹⁶ Greater use of electronic media is associated with depression in children.¹⁹⁷ Violence in screen media, television, film, videos, etc., is associated with aggressive behaviour, desensitization to violence and reduced empathy in youth.¹⁹⁸ A recent systematic review shows that social media use is associated with increasing use of alcohol, drugs, tobacco, vaping of nicotine, and gambling, risky sexual behaviours and unhealthy diets.¹⁹⁹ Another review shows that the use of smartphones and social media in youth is associated with increased mental distress, self-harm and suicidality. Females and heavier users are at increased risk. Negative social interactions, cyber bullying and even social media content can affect adolescent mental health, self esteem and interpersonal relationships. Heavy use is associated with chronic sleep deprivation and negative effects on cognitive control, school performance, and socioemotional functioning.²⁰⁰

Resources for families are available from the CPS, AAP and Media Smarts. Media Smarts has comprehensive resources including articles and tip sheets on subjects like: what to do if someone shared your photo online, cyberbullying – what to do, talking to kids about media and body image, talking to kids about racial stereotypes, and how to keep your information private online to name just a few.

Guides for Healthy Media Use
Screen time and Digital Media (CPS) https://caringforkids.cps.ca/handouts/behavior-and-development/screen-time-and-digital-media
Parental Resources (Media Smarts) https://mediasmarts.ca/resources-for-parents
Safety Online (Canada.ca) https://www.getcybersafe.gc.ca/en
Safety Online https://protectchildren.ca/en/resources-research/online-safety/
Safety Online https://kidshealth.org/en/kids/online-id.html
AAP Family Media Plan https://www.healthychildren.org/English/family-life/Media/Pages/How-to-Make-a-Family-Media-Use-Plan.aspx/
Parental Controls (MediaSmarts) https://mediasmarts.ca/teacher-resources/using-parental-controls

Guides pour une utilisation saine des médias
Le temps d'écran et les médias numériques (CPS) https://soinsdenenfants.cps.ca/handouts/behavior-and-development/screen-time-and-digital-media
Ressources pour parents (Habilomedias.ca) https://habilomedias.ca/ressources-pour-parents
Sécurité en ligne (Canada.ca) https://www.pensezcybersecurite.gc.ca/fr
Sécurité en ligne https://protectchildren.ca/fr/ressources-et-recherche/securite-en-ligne/
Contrôles parentaux (Habilomedias.ca) https://habilomedias.ca/ressources-pedagogiques/utilisation-des-contrôles-parentaux

Pornography

There are few studies evaluating the effects of pornography exposure on adolescents and the evidence is conflicting or inconclusive.²⁰¹ Pornography is used for sexual pleasure, sexual curiosity and

exploration, emotional factors such as distraction, stress reduction, escapism, to alleviate boredom and to cope with negative emotions.²⁰² The use of pornography has been negatively associated with body self-image.²⁰³

One Canadian survey showed that approximately two-thirds of teens (average age 14.5) sampled had already had exposure to pornography and a little over a half were using weekly or more. Highest use was in heterosexual cis-gendered (HC) males, followed by sexual and gender minority (SGM) males, SGM females and lastly HC females.²⁰⁴ Note that for gender minority individuals, the classification of male vs female referred to the gender assigned at birth. Average age of first viewing was between 11 and 13 years. SGM includes individuals who identify as lesbian, gay, asexual, transgender, Two-Spirit, queer, and/or intersex.

A scale has been developed and validated called the Problematic Pornography Consumption Scale (PPCS-18).²⁰⁵ A shorter 6-question scale PPCS-6 has also been developed.²⁰⁶ The value of such a scale outside of research and in treatment-seeking individuals is uncertain.

Sexting

Sexting is the use of digital media to exchange sexually explicit messages or images electronically.

Overall rates of sexting behaviour among Canadian youth remain quite low and are most likely to occur in the context of a romantic relationship. In a survey among Canadian youth in grades 7-11, 9% reported having sent a sext while 17% reported having received a sext; 38% had their sext forwarded to someone else; 16% received a sext forwarded to them, and 29% reported having forwarded a sext. Rates of sexting were similar between genders, however girls were more likely than boys to receive a sext from someone they didn't know.²⁰⁷

Lower body-related self-esteem or body appreciation is associated with a higher frequency of sexting in adolescent heterosexual cis-gendered (HC) females and SGM males. This association is not present in other adolescents ie HC males and SGM females. Sexting appears to be used to obtain validation of attractiveness especially in HC girls.²⁰⁸

While there is evidence that sexting in itself is not an inherently harmful activity, there is increased awareness of the associated risks and legal implications of producing, distributing and possessing sexually explicit images of minors.²⁰⁹ Potential harms linked to sexting involvement include: emotional distress, anxiety and depression symptoms; reputational damage from non-consensual distribution of images or messages; increased risk of being cyberbullied; increased likelihood of being the victim of emotional and physical dating and relationship violence; early sexual debut, multiple sexual partners and unprotected sex; and increased receipt of sexual requests from adults.^{210 211 212,}

Youth who engage in sexting are less likely to say that they know how to protect themselves online; are less likely to agree that the internet is a safe place and more likely to worry about spending too much time online.²⁰⁷

Clinicians should communicate the potential harmful consequences and effects of sexting involvement, and the associated risks (coercion, harassment and victimization) when images are disseminated without consent so that young people can make informed decisions about their engagement in sexting.

Gaming disorder

The American Psychiatric Association has put forward Internet gaming disorder (IGD) as a potential diagnosis. Prevalence is estimated to be between 1% and 9% depending on age and country studied. The gaming disorder described is not solely linked to online activities as problematic use can also occur with offline use. Pathologic use and high frequency of use are distinct but highly correlated examples of problem gaming. Further study is required to make definitive recommendations.^{213 214} Youth are spending many hours per day gaming. Youth with addictive features of use show evidence of poor emotional and behavioural functioning. Correlated mental health problems include low self-esteem, social phobia and depressive symptoms.^{215,216 217} In one survey eighteen percent of Ontario students reported symptoms of a gaming problem, which include preoccupation, tolerance, loss of control, withdrawal and using as an escape.²¹⁸ A US study demonstrated a correlation between increased gaming duration and weapon-carrying and feeling unsafe at school. Problem gaming was also associated with more fights leading to injuries.²¹⁹

Internet Gaming Disorder
DSM-5: 5 or more of the following in a 12-month period
1. Preoccupation: Preoccupation with online/offline gaming
2. Withdrawal: Unpleasant symptoms when gaming taken away
3. Tolerance: Need to spend increasing time gaming
4. Loss of Control: Unsuccessful attempts to control participation
5. Loss of Interest: in real-life relationships, previous hobbies/recreation
6. Continuation: Continuing despite knowledge of psychosocial problems
7. Deception: Lying about the amount of gaming to family/therapists
8. Escape: Use of Gaming to escape or relieve negative moods
9. Negative Consequences – Losing or putting in jeopardy a relationship/job/education or career opportunity.

Adapted from DSM-5, American Psychiatric Association

Trouble du jeu sur Internet
DSM-5: 5 ou plus des éléments suivants sur une période de 12 mois
1. Préoccupation : préoccupation pour les jeux en ligne/hors-ligne.
2. Symptômes de sevrage : symptômes désagréables lors de la suppression du jeu.
3. Tolérance : besoin de passer de plus en plus de temps à jouer.
4. Perte de contrôle : tentatives infructueuses de contrôle de la participation.
5. Perte d'intérêt : dans les relations réelles, les passe-temps/loisirs antérieurs.
6. Poursuite : poursuivre malgré la connaissance des problèmes psychosociaux.
7. Tromperie : mentir sur la quantité de jeu à la famille/aux thérapeutes.
8. Évasion : utilisation du jeu pour échapper ou soulager les humeurs négatives.
9. Conséquences négatives : perdre ou mettre en péril une relation/un emploi/une éducation ou une opportunité de carrière.

Adapté de DSM-5, American Psychiatric Association

Gambling

Underage gambling can start in children as young as 9 or 10 years of age. In one Canadian survey, most adolescents reported that they have gambled at least once. Adolescents are two to four times more likely to have gambling problems than adults. Adolescent tendencies for risky behaviours can make

them more vulnerable to developing a gambling problem. Depression, loss, abuse, impulsivity, antisocial traits and learning disabilities also increase the risk as well. Health care providers are recommended to screen for problem gambling, as well as depression and suicide risk in adolescents with a gambling problem. They should ask about frequency, a tendency to gamble more than planned, and behaviours suggesting they may be hiding gambling behaviours. Problem gambling is treated in the same way as other behavioural addictions.²²⁰ The DSM-5 includes gambling disorder in its own category in the chapter on behavioural addictions.²¹³

Gambling prevention programs in secondary schools show good effectiveness in reduction of the frequency and severity of gambling.²²¹

Canada now has Lower Risk Gambling Guidelines developed for adults which are not adapted for children.²²² Strategies to lower the risk have been studied, again, in adults.²²³ ²²⁴ Online gambling presents unique challenges of easy accessibility and lack of time restrictions compared to in-person sites.²²⁵

Gambling Disorder
DSM-5: 4 or more of the following in a 12-month period
1. Preoccupation: Persistent thoughts about, planning future gambling or obtaining money to gamble
2. Withdrawal: Unpleasant symptoms when attempting to cut down or stop
3. Tolerance: Need to spend increasing amounts gambling
4. Loss of Control: Repeated unsuccessful attempts to cut back or stop
5. Reliance: on others for money to relieve financial need caused by gambling
6. Continuation: Continuing despite losses
7. Deception: Lying about the amount of gambling
8. Escape: Use of Gaming to escape or relieve negative moods
9. Negative Consequences – Losing or putting in jeopardy a relationship/job/education or career opportunity.

Adapted from DSM-5, American Psychiatric Association

Dépendance aux jeux d'argent
DSM-5: 4 ou plus des éléments suivants sur une période de 12 mois
1. Préoccupation : pensées persistantes concernant la planification du jeu futur ou l'obtention d'argent pour jouer.
2. Symptômes de sevrage : symptômes désagréables lorsque l'on tente de réduire ou d'arrêter.
3. Tolérance : besoin de dépenser des sommes croissantes au jeu.
4. Perte de contrôle : tentatives répétées et infructueuses de réduire ou d'arrêter.
5. Dépendance : à l'égard des autres pour obtenir de l'argent afin de soulager les besoins financiers causés par le jeu.
6. Poursuite : continuer malgré les pertes.
7. Tromperie : mentir sur le montant des jeux de hasard.
8. Évasion : utilisation du jeu pour échapper ou soulager les humeurs négatives.
9. Conséquences négatives : perdre ou mettre en péril une relation/un emploi/une éducation ou une opportunité de carrière.

Adapté de DSM-5, American Psychiatric Association

Gambling - Lowering the Risk
Limit the amount of money: Set your own limits for the amount you will spend. Use cash rather than credit or debit cards. Consider an app that prevents you from making payments with your phone
Limit the time: Set a quit time, schedule an activity immediately after so your gambling time is limited, set alarms on your phone
Limit the frequency: Try to gamble < 5 days per month
Limit the number: Play no more than 2 types of games regularly
Limit consumption of alcohol, cannabis and other drugs
Be aware that faster paced games can lead to spending a lot in a short time

Adapted from <https://gamblingguidelines.ca>

Jeux d'argent — Réduire le risque
<p>Limiter le montant d'argent : fixe-toi une limite quant au montant que tu dépenseras. Utilise de l'argent liquide plutôt que des cartes de crédit ou de débit. Pense à installer une application qui t'empêche d'effectuer des paiements avec ton téléphone.</p>
<p>Limiter le temps : définis une heure d'arrêt, planifie une activité immédiatement après pour limiter ton temps de jeu, règle des alarmes sur ton téléphone.</p>
<p>Limiter la fréquence : essayez de jouer < 5 jours par mois.</p>
<p>Limiter le nombre : ne pas jouer régulièrement à plus de 2 types de jeux.</p>
<p>Limiter la consommation d'alcool, de cannabis et d'autres drogues.</p>
<p>Soit conscient que les jeux au rythme plus rapide peuvent entraîner des dépenses importantes en peu de temps.</p>

Adapté de <https://gamblingguidelines.ca>

Body Changes and development

Physical changes of puberty should be addressed and anticipatory guidance offered. Assessment of sexual maturity is included in the physical examination. For easy reference, Sexual Maturity Rating (SMR) tables are included on the health record. Although age ranges have been included, it is recognized that there is considerable normal variation outside of the ranges provided.^{226 227 228 229} Precocious puberty refers to the appearance of physical signs of puberty before the age of 9 years in boys and in girls before age 7 or 8 years. It is proposed by some that in some ethnic groups, breasts and pubic hair may be normal as early as 6 years of age, although there is considerable debate and concern about missing significant pathology.^{230 231 232} Girls who have both breasts and pubic hair development at 7 or 8 years of age should preferably have their growth and history reviewed and a bone age evaluation for height prediction. These measurements should help identify children in need of further testing²³³.

Puberty and Sexual Maturity.

Tables for sexual maturity ratings are included in the Greig Health Record.^{234 235} References for development outside of the usual age ranges are included.

Sexual Health and Relationships

Sexual Health History and Counselling

A sexual history should be taken with appropriate sensitivity, ensuring confidentiality, patient comfort and using non-judgemental language. The Canadian Guidelines on Sexually Transmitted Infections has been replaced by the Sexually Transmitted and Blood Borne Infections (STBBI) prevention guide.²³⁶ The guide includes detailed information on how to take a sexual history as well as risk factors for STIs. The CDC (Centers for Disease Control) and the Canadian Paediatric Society also have similar guides.²³⁷²³⁸ A table which is adapted from recommendations from these guides has been included in the Greig Health Record.

Practices may include consensual nonmonogamy. Rates of STIs are similar to monogamous partners. Inclusive language, asking open-ended questions, and offering a non-judgemental stance facilitates care and the doctor-patient relationship.²³⁹ Note that many adolescents erroneously believe that non-coital sexual contact is not “sex” and thus reduces their risk for infection.²⁴⁰

Counselling about contraception and anticipatory counselling about folic acid supplementation are recommended by the Society of Obstetricians and Gynaecologists of Canada for all females in their child-bearing years.²⁴¹

The USPSTF recommends behavioural counselling in all sexually active adolescents to prevent STIs. Counselling increases the use of condoms and safer sex practices and reduces acquisition of STIs by up to 30%.²⁴² A table of prevention counselling topics is included in the supplementary resource pages of the Greig Health Record.

A guide to sexual health history taking in adolescents is available in French.²⁴³

Sexual History	
General Approach	Ask which pronouns they use. Ask permission to talk about sexual health. When asking, ensure confidentiality, patient comfort, relevance of questions. Inform why you are asking and that they are not obligated to answer. Use simple and non-judgemental language and open-ended questions.
The Questions	
Partners	Sex with men, women, both or people who identify in other ways? How many partners in recent months? Do you or your partners have other sex partners?
Pregnancy Intention	What are you or your partner doing to prevent pregnancy? (If applicable)
Protection from STIs	What do you do to protect yourself from STIs and HIV? Discuss condoms, vaccination (HPV, Hep A and Hep B), PrEP and PEP (as appropriate)
Practices	Kind of sex: digital, vaginal, anal, oral. Sharing of sex toys Condom use – always, sometimes, never. If not always, what situations or circumstances make condom use less likely?
Past STI history	Have you or a partner -ever had a STI or HIV? -ever injected drugs? -exchanged sex for drugs or money? Is there anything else about your sexual practices, either now or in the past, that I should know?
Psychosocial Issues	Identify barriers to access and use of prevention.
Permission and Power	Review power and consent – ability to discuss or negotiate use of prevention and safer practices. Ask about the sexual relationship. Ask about coercion and intimate partner violence.
Pleasure	Ask about using substances to enhance sexual pleasure. Ask if sex is painful.

Adapted from PHAC and CDC

Antécédents de santé sexuelle	
Approche générale	Assurer ces conditions : confidentialité, confort du patient, démarche inclusive, sans discriminations, sans jugement.
Les questions :	
Identité personnelle	Identité de genre, pronoms.

Partenaires	Relations sexuelles avec des hommes, des femmes, les deux ou des personnes qui s'identifient d'une autre manière ? Combien de partenaires ces derniers mois ? Est-ce que toi ou tes partenaires avez d'autres partenaires sexuels ?
Prévention et planification de la grossesse	Que faites-vous, toi et ton partenaire, pour éviter une grossesse (le cas échéant) ? Contraception (le cas échéant) ou désir de grossesse ?
Protection contre les infections transmises sexuellement (ITS)	Que fais-tu pour te protéger des IST et du VIH ? Discuter des préservatifs, de la vaccination (VPH, hépatite A et hépatite B), de la PrEP et de la PEP (le cas échéant). Condoms, vaccinations, prévention de VIH.
Pratiques	Type de relations sexuelles : avec les doigts ou les mains, vaginal, anal, oral ? Partage de jouets sexuels ? Utilisation du préservatif (condom) : toujours, parfois, jamais. Si ce n'est pas toujours le cas, quelles situations ou circonstances rendent l'utilisation du préservatif moins probable ?
Antécédents d'IST	Toi ou un de tes partenaires... – avez-vous déjà eu une IST ou le VIH ? – vous êtes-vous déjà injecté des drogues ? – avez-vous déjà échangé des relations sexuelles contre de la drogue ou de l'argent ? Y a-t-il autre chose concernant tes pratiques sexuelles, actuelles ou passées, que je devrais connaître ?
Problèmes psychosociaux	Obstacles à l'accès ou à l'utilisation des méthodes de prévention
Permission (consentement)	Pouvoir d'examen et consentement – capacité de discuter ou de négocier le recours à la contraception et à des pratiques plus sûres. Se renseigner sur la relation sexuelle. Se renseigner sur la coercition et la violence conjugale. dynamique de pouvoir consentement coercition et violence
Plaisir	Substances utilisées pour améliorer le plaisir sexuel (le cas échéant) ? Douleur pendant les rapports sexuels ?

Adapté de PHAC, CDC, CPS

Risk Factors for STIs
Sexually active adolescent or young adult. < 25 years old
Higher risk practices – unprotected oral, vaginal, or anal intercourse (no barrier method), sex with blood exchanges, sharing sex toys
Past history of STIs
Sex with someone with an STI or at high-risk
Serial monogamy (series of one-partner relationships)
New partner or > 2 partners in the previous year
Injection drug use
Using substances while having sex
Sex for survival – for money, drugs, food or shelter
Sex workers and their clients
Anonymous sex – raves, bathhouse, meeting online

Survivor of sexual assault/other abuse
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Source: PHAC, SOGC, CDC

Les facteurs de risque d'ITS

Jeune sexuellement actif. < 25 ans.
Pratiques à risque plus élevé : rapports sexuels oraux, vaginaux ou anaux non protégés (sans méthode barrière), rapports sexuels avec échanges sanguins, partage de jouets sexuels.
Antécédents d'ITS.
Relations sexuelles avec une personne atteinte d'une ITS ou à haut risque.
Relations monogames en série (série de relations à un seul partenaire).
Nouveau partenaire ou > 2 partenaires l'année précédente.
Utilisation de drogues injectables.
Utilisation de substances pendant les relations sexuelles.
Sexe pour survivre : pour de l'argent, de la drogue, de la nourriture ou un logement.
Professionnels du sexe et leurs clients.
Sexe anonyme : raves, bains publics, rencontres en ligne.
Survivant d'une agression sexuelle/d'autres abus.

Source: PHAC, SOGC, CDC

Consent for Sexual Activity

In Canada, the criminal code defines the age of consent for sexual activity as 16 years for non-exploitative activity and as 18 years for situations involving prostitution, pornography or in relationships where there is a difference in authority or dependence. There are close-in-age exceptions. For 14- or 15-year-olds, the relationship must be nonexploitative and the partner must be < 5 years older. For 12- and 13-year-olds, the partner must be < 2 years older. For details, see: <https://www.justice.gc.ca/eng/rp-pr/other-autre/clp/faq.html> ²⁴⁴

Consent for Sexual Activity

General	
All sexual activity without consent is a criminal offence. Regardless of age. Sexual activity ranges from kissing and fondling to intercourse.	

Age of consenter	May legally give consent
18 years and older	In cases of potentially exploitative situations eg involving prostitution, pornography or in relationships where there is a difference in authority or dependence
16 years and older	Must be non-exploitative
Exceptions for close in age	
Age 14 or 15 years	Partner is < 5 years older and non-exploitative
Age 12 or 13 years	Partner is < 2 years older and non-exploitative
Under 12 years	Cannot consent

<https://www.justice.gc.ca/eng/rp-pr/other-autre/clp/faq.html>

Le consentement aux activités sexuelles
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Général	
L'absence de consentement aux activités sexuelles constitue une infraction criminelle. Peu importe l'âge. Par activité sexuelle, on comprend qu'il peut s'agir autant de baisers, de caresses que de rapports sexuels.	

Âge du consentant	Peut légalement donner son consentement.
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18 ans et plus	En cas de situations potentiellement exploitantes, par exemple impliquant la prostitution, la pornographie ou dans des relations où il existe une différence d'autorité ou de dépendance.
16 ans et plus	Doit être non exploiteur.
Exceptions pour les personnes proches en âge.	
Âge 14 ou 15 ans	Partenaire a moins de 5 ans de plus et n'exploite pas.
Âge 12 ou 13 ans	Partenaire a moins de 2 ans de plus et n'exploite pas.
Moins de 12 ans	Ne peut pas consentir.

<https://www.justice.gc.ca/fra/pr-pr/autre-other/clp/faq.html>

Sexual Health – Patient Information	
Sex & U https://www.sexandu.ca/	Consent
	Contraception
	Gender Identity
	LGBTQ+
	Menstrual Health -periods
	Puberty
	Sexual Activity
	Sexual Assault
	Sexual Orientation
	Sexually Transmitted Infections (STIs)
Action Canada https://www.actioncanadashr.org/sexual-health-hub/emergency-contraception	Emergency Contraception
Health Canada https://www.canada.ca/en/public-health/services/sexual-health.html	STIs – symptoms & testing Condoms
Catie https://www.catie.ca/	HIV and Hep C information PEP and PrEP
https://www.canada.ca/en/public-health/services/diseases/mpox.html	Mpox (monkeypox)

Santé sexuelle – Information pour patient	
Le Sexe et Moi https://www.sexandu.ca/fr/	Activité sexuelle
	Consentement
	Contraception
	Harcèlement et agression sexuels
	Identité de genre
	Infections transmises sexuellement (ITS)
	LGBTQ+
	Menstruations
	Orientation sexuelle
	Puberté
Santé Canada https://www.canada.ca/fr/sante-publique/services/sante-sexuelle.html	ITS – symptômes et tests de dépistage Condoms
Action Canada https://www.actioncanadashr.org/fr/sexual-health-hub/emergency-contraception-0	Contraception d'urgence
Catie https://www.catie.ca/fr	VIH et hep C - information PPE et PrEP
https://www.canada.ca/fr/sante-publique/services/maladies/mpox.html	Mpox (variole simienne)

2SLGBTQI+

In 2023, the Government of Canada updated the official acronym for “Two-Spirit, lesbian, gay, bisexual, transgender, queer, intersex, and additional people who identify as part of sexual and gender diverse communities” to 2SLGBTQI+. ²⁴⁵ Approximately 3% of Canadians ages 15 and older identify as lesbian, gay or bisexual. ²⁴⁶ ²⁴⁷ Transgender and non-binary individuals are estimated to be between 0.16 to 0.36 percent of the Canadian population. ²⁴⁸ Compared with heterosexual, cisgender peers, these groups experience worse health outcomes. ²⁴⁹ ²⁵⁰ An analysis of the 2019 Canadian Health Survey on Children and Youth showed an increased risk of both suicidal ideation and attempts. ²⁵¹ According to the Canadian Community Health Survey (2014), lesbian, gay and bisexual persons are more likely, in the last 12 months, to have consulted a psychologist, and more like to have felt they needed health care but did not receive it but are less likely to have a regular medical doctor when compared with heterosexuals. ²⁴⁹ Strong family support is a protective factor. Clinicians can provide information to patients and families. ²⁵² Transgender individuals also report unmet needs with respect to health care. ²⁵³ Health care providers can help by creating an office environment that is non-discriminatory and sensitive to the needs of 2SLGBTQI+ patients. ²⁵⁴ ²⁵⁵ ²⁵⁶ Resources provided in the Greig Health Record may be of help.

2SLGBTQI+ Patient and Family Resources
PFLAG Canada – https://pflagcanada.ca/resources/
Kids Help Phone https://kidshelpphone.ca/ 1-800-668-6868
LGBT Youth Line www.youthline.ca 1-800-268-9688
Trevor Project https://www.thetrevorproject.org/ 1-866-488-7386
Text START to 678-678 resource for LGBTQ youth
Native Youth Sexual Health Network https://www.nativeyouthsexualhealth.com/
Trans Lifeline www.translifeline.org 1-877-330-6366
Trans Peer support www.gendercreativekids.ca
Trans Family Supports www.transparentcanada.ca https://familyproject.sfsu.edu/ www.imatyfa.org

2SLGBTQI+ Professional resources
Rainbow Health https://www.rainbowhealthontario.ca/
Trans Care BC http://www.phsa.ca/transcarebc/health-professionals/education
Sherbourne Health: Guidelines and Protocols (includes hormone therapy) for Trans Clients https://www.rainbowhealthontario.ca/product/4th-edition-sherbourne-guidelines-for-gender-affirming-primary-care-with-trans-and-non-binary-patients/
Vaccines for MSM - https://www.immunize.org/catg.d/p4046.pdf Mpox: https://www.canada.ca/en/public-health/services/diseases/monkeypox/health-professionals/vaccination-clinic-resources.html
Pre-exposure prophylaxis - https://www.catie.ca/canadian-guideline-on-hiv-pre-exposure-prophylaxis-and-nonoccupational-postexposure-prophylaxis-for-hiv-prevention https://www.cma.ca/content/189/47/E1448
Resource list https://www.ontario.ca/document/serving-lgbt2sq-children-and-youth-child-welfare-system/resources-templates-and-bibliography#section-1

Ressources pour les patients 2ELGBTQI+ et les familles
Jeunesse, J'écoute : https://jeunessejecoute.ca 1-800-668-6868
Family Acceptance Project (anglais): https://familyproject.sfsu.edu/

2ELGBTQI+ Ressources professionnelles
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Lignes directrices canadiennes sur les prophylaxies préexposition et post-exposition non professionnelle au VIH :

<https://www.catie.ca/fr/lignes-directrices-canadiennes-sur-les-prophylaxies-pre-exposition-et-post-exposition-non>

Ressources :

<https://www.ontario.ca/fr/document/au-service-des-enfants-et-des-jeunes-lgbt2sq-pris-en-charge-par-le-systeme-de-bien-etre-de-lenfance/ressources-modeles-et-bibliographie>

Intimate Partner Violence

Intimate partner violence (IPV) can include physical, emotional, sexual, financial, contraceptive, and reproductive abuse as well as stalking and coercion. More than 40% of women and 33% of men in Canada have experienced IPV in their lifetimes.²⁵⁷ Prevention of IPV should focus on educating patients from a young age about healthy relationships. When IPV is identified, the clinician should assess for basic patient safety, document carefully and provide appropriate referrals and support.²⁵⁸ The US Preventive Services Task Force recommends that “clinicians screen for intimate partner violence in women of reproductive age and provide or refer women who screen positive to ongoing support services. Although a recommendation is not made for men, it does report that more than a third of men have experienced sexual or physical violence, or stalking by an intimate partner.”²⁵⁹ Children’s exposure to IPV can have long-term consequences.²⁶⁰

A quick screening tool, HITS, for Hurt Insulted, Threatened, Screamed, is available.²⁶¹

HITS – Screening for Intimate Partner Violence

<https://www.ementalhealth.ca/index.php?ID=18&m=survey>

Score >10 is positive, but any concerns should be discussed with your health care provider.

From Sherin KM et al. Fam Med. 1998 Jul-Aug;30(7):508-12.

HITS – Outil de dépistage : Violence conjugale

<https://www.esantementale.ca/index.php?ID=18&m=survey>

Un score > 10 est positif, mais toute préoccupation doit être discutée avec votre fournisseur de soins de santé.

Source : Sherin KM et al. Fam Med. 1998 Jul-Aug;30(7):508-12.

Menstrual Issues

Quick questions about menstruation are helpful in the adolescent. Adolescents may be reluctant to discuss such issues with health care providers.²⁶² Doing so offers the opportunity to educate young people about what is normal and abnormal as well as offering the opportunity to help with troublesome issues as heavy bleeding, fatigue, and mood issues and treat pathologic conditions like abnormal uterine bleeding and endometriosis.²⁶³ Dysmenorrhea is the most common gynecologic complaint among adolescent with uteruses²⁶⁴ and a leading cause of absenteeism from school and work in this age group²⁶⁵.

The worldwide the median age of menarche is currently relatively stable: between 12 and 13 years of age in healthy well-nourished adolescents. Clinicians should provide anticipatory guidance prior to menarche. They can inform patients that menses usually begin 2 to 3 years after breast development begins.²⁶⁶ Cycles in adolescents may not regularize for 2 to 3 years and those initial cycles are 20 to 45 days in length. This is different from the adult normal range which is 24 to 38 days. In the first 5 years of

menstruation cycles over 35 days are not uncommon. Menorrhagia is bleeding of 80ml or more in a cycle. Requiring pad or tampon changes every one to two hours (ie if one waits longer there will be accidents) or periods lasting more than 8 days are considered excessive. A pictorial assessment tool can be used.^{267 268} A chart is available at <https://www.betteryouknow.org/sites/default/files/2022-08/BetterYouKnow-Menstrual-Chart-Scoring-System.pdf>. Menstruating adolescents should be screened for risk factors associated with iron deficiency.²⁶⁹

Menstrual health – ask about:
Age of menarche – avg. is 12 to 13 years
Cycles and regularity – may take 2 to 3 years to establish regular cycles after menarche, initial cycles are 20 to 45 days vs 24 to 38 for adults
Length of periods – avg duration is 5 days, > 7 days is prolonged
Heavy bleeding or clotting – avg. volume is 40 mls, heavy is over 80 ml, a saturated pad or tampon absorbs 5 to 15 ml. Clots larger than a quarter are excessive. Menstrual chart available at https://www.betteryouknow.org/sites/default/files/2022-08/BetterYouKnow-Menstrual-Chart-Scoring-System.pdf
Symptoms related to cycle – mood, irregular bleeding, fatigue, shortness of breath,
Consider screening for anemia or iron deficiency for heavy, prolonged or frequent bleeding or for those with symptoms of fatigue or shortness of breath
Dysmenorrhea
Amenorrhea – primary – no period by age 16, secondary – no period for 6 mos

ACOG, BMJ, CDC, Graham, Pediatrics in review, Dec2018;39(12):588-600

Santé menstruelle – posez des questions sur :
Âge des premières règles, la moyenne est de 12 à 13 ans.
Cycles et régularité : peut prendre 2 à 3 ans pour établir des cycles réguliers après les premières règles, les cycles initiaux durent de 20 à 45 jours, contre 24 à 38 pour les adultes.
Durée des règles : la durée moyenne est de 5 jours, > 7 jours sont prolongés.
Saignement abondant ou coagulation : en moyenne, le volume est de 40 ml, un flux abondant dépasse 80 ml, une serviette ou un tampon saturé absorbe 5 à 15 ml. Les caillots de plus d'un quart sont excessifs. Tableau menstruel disponible sur https://www.betteryouknow.org/sites/default/files/2022-08/BetterYouKnow-Menstrual-Chart-Scoring-System.pdf
Symptômes liés au cycle menstruel : humeur, saignements irréguliers, fatigue, essoufflement.
Envisager un dépistage de l'anémie ou d'une carence en fer en cas de saignements abondants, prolongés ou fréquents ou en cas de symptômes de fatigue ou d'essoufflement.
Dysménorrhée.
Aménorrhée : <ul style="list-style-type: none"> • primaire : pas de règles avant l'âge de 16 ans; • secondaire : pas de règles pendant 6 mois.

ACOG, BMJ, CDC, Graham, Pediatrics in review, Dec2018;39(12):588-600

Contraception

A CPS position statement on contraception for Canadian youth was published in 2018. It addresses issues peculiar to youth, specifically migraine with aura, bone mineral density, thromboembolic events,

choice of contraception method, extended use oral contraceptives, quick-start regimens and year-long prescriptions.²⁷⁰

Choice of Contraceptive

The CPS guideline states that contraceptives should be offered in order of effectiveness, with long-acting reversible contraceptives (LARC) at the top of the list, specifically intra-uterine devices (IUDs) and hormone-releasing intrauterine systems (IUS). In 2020 Health Canada approved the use of an etonogestrel subdermal implant effective for 3 years (Nexplanon), adding to the LARC repertoire.^{271 272}

²⁷³ Health care providers should be aware that the use of long-acting reversible contraception may decrease condom use.²⁷⁴

Other hormonal options include the use of contraceptive pills (estrogen & progesterone or progesterone-only), transdermal patch (estrogen & progesterone) or the vaginal ring (estrogen & progesterone).²⁷⁵ A reminder is issued to ask about migraine with aura as this is an absolute contraindication to estrogen-containing contraception.

Non-hormonal methods include condoms, diaphragms, withdrawal methods, timed intercourse or emergency contraceptives (EC). It should be noted that these third-line options are not routinely advised as they have the highest rates of pregnancy.²⁷⁵

Quick Start and Back-up

All the following methods are recommended to be started at any time in the menstrual cycle to optimize adherence. For Levonorgestrel IUS and Copper IUDs backup contraception is recommended for 7 days after insertion.²⁷⁵ For the Etonogestrel Implant, backup contraception should be used for 7 days, unless inserted between day 1 and 5 of the menstrual cycle.²⁷⁶ Similarly, for the Oral Contraceptive Pill, Transdermal patch, and Vaginal ring, backup contraception should be used for 7 days if not initiated between day 1 and 5 of the menstrual cycle. When hormonal contraception is started, but not in the first 7 days of the cycle, it is recommended that a pregnancy test be done prior to starting contraception and a second pregnancy test is recommended 21 days later.²⁷⁵

Bone Health

Half of adult bone mass is laid down during adolescence and bone mineralization continues into early adulthood. Contraceptives that reduce bone mineralization, through a hypoestrogenic state, in women under 25 years may have long term implications for bone health. Depo medroxyprogesterone acetate (DMPA) is associated with a decrease in bone mineral density, especially in the first year of use although some studies show a rebound in bone density after discontinuation. The SOGC recommends weighing the risks and benefits of DMPA, and recommends optimizing calcium and vitamin D intake, weight bearing exercise and reducing cigarette smoking, caffeine and alcohol for those who choose DMPA contraception.²⁷⁷ Additionally oral contraceptive pills with ethinyl estradiol (EE) below 30 mcg per day should be avoided for the same reason. Transdermal patches with 20 mcg of EE have a higher delivery of estrogen than a 30 mcg oral pill. The intravaginal ring's effect on bone density has not been evaluated.²⁶⁹ All 3 LARCs (IUD, IUS, subdermal implant) do not affect or suppress estradiol levels, thus no effects on bone mineral density are anticipated.^{271 278 279 280 281 282}

VTE risk

The risk of thromboembolic events in youth 15 to 19 years old is low. There is no statistical difference between oral contraceptive pills of 20 mcg and 30 mcg of EE; the role of specific progestins is not yet elucidated. Transdermal and transvaginal contraceptives, which contain estrogen, may have higher thromboembolic risk, but they have not been extensively studied and the absolute risk remains low.²⁷⁵

Weight Gain

There is little evidence of an association of weight gain and use of oral and transdermal contraceptives.²⁸³ Similarly, with limited data, the vaginal ring and intrauterine contraception do not seem to be associated with weight gain. Certain progestins can be idiosyncratic increases in appetite which may be addressed by changing the progestin. DMPA may be associated with weight gain, more so in overweight users, but some users (20 to 40%) lose weight. Certain contraceptives, such as the transdermal patch, may be less effective in users of higher weights (>90 kg).²⁷⁵

Continuous Regimens

There is no contraindication to extended cycles with oral contraceptives, patches and rings. The cycles are extended by using active pills for two or more cycles, followed by four to seven days of placebo. Although no pelvic examination or Pap testing is required prior to starting contraception, this does not preclude STI screening.²⁷⁵

Counselling

Counselling for condom use even when using effective contraception is recommended to protect from STIs. Providing year-long prescriptions is recommended for encouraging continuation and decreasing the number of pregnancies and abortions.²⁷⁵

Emergency Contraception

Emergency contraception should be discussed where applicable.²⁷⁵ In Canada, oral emergency contraception is available in most regions without a prescription. It is available behind the counter in Saskatchewan and Quebec.²⁸⁴ Emergency contraception is available free or at nominal cost through many health clinics, sexual health clinics, women's clinics and emergency rooms across Canada. Options include oral contraceptive pills or post-coital insertion of a copper IUD or levonorgestrel IUS. The efficacy of the levonorgestrel pill (plan B) is highest when taken within 24 hours after unprotected intercourse, but can be used up to 5 days. Ullipristal acetate (ella) is maximally effective within 3 days (72 hours), but can be used up to 5 days after. Ullipristal was found to be equally effective for those with a higher BMI. Both the copper IUD and levonorgestrel IUS are maximally efficacious as EC for up to 5 days after unprotected intercourse, with some reports suggesting use up to 14 days after intercourse.²⁸⁵

²⁸⁶

In contrast, the combination pill of mifepristone and misoprostol can be prescribed for therapeutic abortions if the window of emergency contraception is missed, and pregnancy is confirmed.²⁸⁷

Contraception Recommendations
Note – recommendations for contraception do not address STI prevention

<p>Recommend contraceptives in order of effectiveness.</p> <ol style="list-style-type: none"> 1. Long-acting, reversible (LARC) - IUD or IUS or implantable etonogestrel device 2. Hormonal plus time of intercourse method 3. Hormonal – OCPs, transdermal patch, vaginal ring, injectable 4. Used at time of intercourse – male and female condoms, diaphragms, cervical caps, sponges and spermicide.
<p>History and Physical</p> <p>Take a complete medical history,</p> <p>Ask about migraines with aura – an absolute contraindication to estrogen use, progesterone only methods may be used</p> <p>Examination – weight and BP</p> <p>Provide contraception without a pelvic examination unless required eg for IUC insertion</p>
<p>Prescribing</p> <p>Quick-start approach – do not wait for next menses if reasonable certainty that they are not pregnant, use a back up method for 7 days after starting an OCP or implantable etonogestrel device outside of days 1 to 5 of the menstrual cycle.</p> <p>Provide one-year prescriptions to increase adherence (ie for non LARC)</p> <p>Choose OCP with 30 or 35 mcg of ethinyl estradiol – lower levels may have negative effects on bone mineral density for adolescents</p> <p>For OCPs extended cycles and continuous use of active pills are effective</p>
<p>Precautions and contraindications</p> <p>For individuals over 90kg – certain contraceptives may have reduced effectiveness</p> <p>Combined OCP Contraindications: containing estrogen</p> <p>Migraine with aura, history of venous thromboembolism or pulmonary embolus, SLE with anti-phospholipid antibodies, Factor V Leiden deficiency, estrogen sensitive tumours etc (see guidelines)</p> <p>Use SOGC guidelines to inform contraceptive choice</p>
<p>Discuss emergency contraception and condom use as appropriate</p>

CPS, SOGC Di Meglio G, Paediatrics & Child Health, 2018, 271-277

Recommandations en matière de contraception
<p>Remarque – les recommandations en matière de contraception ne traitent pas de la prévention des IST</p>
<p>Contraceptifs recommandés selon leur ordre d'efficacité :</p> <ol style="list-style-type: none"> 1. Contraceptifs à action prolongée et contraceptifs réversibles - DIU ou SIU ou implant sous-dermique à l'étonogestrel. 2. Méthode hormonale et méthode au moment du rapport sexuel. 3. Méthode hormonale - contraceptifs oraux, patch transdermique, anneau vaginal, injectable. <p>Méthode utilisée au moment du rapport sexuel - préservatifs masculins et féminins, diaphragmes, capes cervicales, éponges et spermicide.</p>
<p>Antécédents médicaux et examen physique.</p> <p>Rédigez un historique médical complet,</p> <p>Posez des questions sur les migraines avec aura – une contre-indication absolue à l'utilisation d'œstrogènes, les méthodes à base de progestérone seule peuvent être utilisées.</p> <p>Examen – poids et tension artérielle.</p> <p>Fournissez une contraception sans examen pelvien, sauf si cela est nécessaire, par exemple pour l'insertion d'un IUC.</p>
<p>Prescription</p> <p>Approche de démarrage rapide – n'attendez pas les prochaines règles si vous avez une certitude raisonnable qu'elle n'est pas enceinte, utilisez une méthode de secours pendant 7 jours après le début d'une contraception orale ou d'un dispositif implantable à l'étonogestrel en dehors des jours 1 à 5 du cycle menstruel.</p> <p>Fournissez des prescriptions d'un an pour augmenter l'observance (c'est-à-dire pour les pilules n'étant pas des contraceptifs à action prolongée et contraceptifs réversibles).</p> <p>Choisissez une contraception orale contenant 30 ou 35 mg d'éthinylestradiol – des niveaux inférieurs peuvent avoir des effets négatifs sur la densité minérale osseuse chez les adolescentes.</p> <p>Pour les pilules orales, des cycles prolongés et l'utilisation continue de pilules actives sont efficaces.</p>
<p>Précautions et contre-indications</p>

<p>Pour les personnes de plus de 90 kg – certains contraceptifs peuvent avoir une efficacité réduite.</p> <p>Contre-indications des contraceptifs oraux combinés : contenant des œstrogènes. Migraine avec aura, antécédents de thromboembolie veineuse ou d'embolie pulmonaire, LED avec anticorps antiphospholipides, déficit en facteur V Leiden, tumeurs sensibles aux œstrogènes, etc. (voir les lignes directrices)</p> <p>Utilisez les lignes directrices de la SOGC pour éclairer le choix d'un contraceptif.</p>
<p>Discutez de la contraception d'urgence et de l'utilisation du préservatif, le cas échéant.</p>

CPS, SOGC Di Meglio G, Paediatrics & Child Health, 2018, 271-277

Recommandations en matière de contraception
<p>Remarque – les recommandations en matière de contraception ne traitent pas de la prévention des IST</p>
<p>Contraceptifs recommandés selon leur ordre d'efficacité :</p> <ol style="list-style-type: none"> 1. Contraceptifs à action prolongée et contraceptifs réversibles - DIU ou SIU ou implant sous-dermique à l'étonogestrel. 2. Méthode hormonale et méthode au moment du rapport sexuel. 3. Méthode hormonale - contraceptifs oraux, patch transdermique, anneau vaginal, injectable. <p>Méthode utilisée au moment du rapport sexuel - préservatifs masculins et féminins, diaphragmes, capes cervicales, éponges et spermicide.</p>
<p>Antécédents médicaux et examen physique.</p> <p>Rédigez un historique médical complet.</p> <p>Posez des questions sur les migraines avec aura – une contre-indication absolue à l'utilisation d'œstrogènes, les méthodes à base de progestérone seule peuvent être utilisées.</p> <p>Examen – poids et tension artérielle.</p> <p>Fournissez une contraception sans examen pelvien, sauf si cela est nécessaire, par exemple pour l'insertion d'un IUC.</p>
<p>Prescription</p> <p>Approche de démarrage rapide – n'attendez pas les prochaines règles si vous avez une certitude raisonnable qu'elle n'est pas enceinte, utilisez une méthode de secours pendant 7 jours après le début d'une contraception orale ou d'un dispositif implantable à l'étonogestrel en dehors des jours 1 à 5 du cycle menstruel.</p> <p>Fournissez des prescriptions d'un an pour augmenter l'observance (c'est-à-dire pour les pilules n'étant pas des contraceptifs à action prolongée et contraceptifs réversibles).</p> <p>Choisissez une contraception orale contenant 30 ou 35 mg d'éthinylestradiol – des niveaux inférieurs peuvent avoir des effets négatifs sur la densité minérale osseuse chez les adolescentes.</p> <p>Pour les pilules orales, des cycles prolongés et l'utilisation continue de pilules actives sont efficaces.</p>
<p>Précautions et contre-indications</p> <p>Pour les personnes de plus de 90 kg – certains contraceptifs peuvent avoir une efficacité réduite.</p> <p>Contre-indications des contraceptifs oraux combinés : contenant des œstrogènes. Migraine avec aura, antécédents de thromboembolie veineuse ou d'embolie pulmonaire, LED avec anticorps antiphospholipides, déficit en facteur V Leiden, tumeurs sensibles aux œstrogènes, etc. (voir les lignes directrices)</p> <p>Utilisez les lignes directrices de la SOGC pour éclairer le choix d'un contraceptif.</p>
<p>Discutez de la contraception d'urgence et de l'utilisation du préservatif, le cas échéant.</p>

CPS, SOGC Di Meglio G, Paediatrics & Child Health, 2018, 271-277

Emergency Contraception

Options: 1. Emergency over-the-counter hormonal pills (easiest to obtain, but reduced efficacy for patients weighing ≥ 75 kg) <ul style="list-style-type: none"> • Oral levonorgestrel (LNG) • Ulipristal acetate (UPA) • Combined OCP (lower efficacy than above) 2. Copper IUD (most effective) 3. Levonorgestrel IUS
When prescribing <ul style="list-style-type: none"> • Ask about timing of unprotected intercourse (determine if within window of effectiveness) • Assess re risk for pre-existing pregnancy • Ask if unprotected intercourse was coerced • Assess for STI risk, need for post exposure prophylaxis, offer testing for STIs • Consider a pregnancy test 3 weeks post use
Reference: https://www.jogc.com/article/S1701-2163(16)39372-0/fulltext

Adapted from JOGC, October 2015;37(10):S20-8. Bancsi & Grindrod Can Fam Phys 2020;66(1):42-4.

Contraception d'urgence
Options : 1. Pilules contraceptives d'urgence (les plus faciles à obtenir, mais efficacité réduite pour les patients pesant > 75 kg). <ul style="list-style-type: none"> • Lévonorgestrel oral (LNG) ; • Acétate d'ulipristal (UPA) ; • Contraceptifs oraux combinés (efficacité plus faible que ci-dessus). 2. DIU au cuivre (le plus efficace). 3. SIU au lévonorgestrel.
Lors de la prescription : <ul style="list-style-type: none"> • renseignez-vous sur le temps écoulé depuis un rapport sexuel non protégé (déterminez s'il est dans la fenêtre d'efficacité); • évaluer le risque de grossesse préexistante; • demandez si des rapports sexuels non protégés ont été forcés; • évaluer le risque d'IST, la nécessité d'une prophylaxie au VIH post-exposition, proposer des tests pour les IST; • envisagez un test de grossesse 3 semaines après l'utilisation.
Référence : https://www.jogc.com/article/S1701-2163(16)39372-0/fulltext

Adapté de JOGC, October 2015;37(10):S20-8. Bancsi & Grindrod Can Fam Phys 2020;66(1):42-4.

Cervical Screening Guidelines

Agreement between existing guidelines is that screening in individuals ages 21 years and under is not recommended. Positive test results are usually transient; HPV tends to resolve on its own. There are harms associated with treatment, including a risk to future child-bearing.^{288 289} Even with new HPV testing, the recommendations in the pediatric population remain unchanged. Primary prevention with childhood HPV immunization is likely to significantly reduce cancer incidence.²⁹⁰

Pregnancy

Pregnant adolescents are a special-needs population at increased risk. Risks include preterm labour, preterm birth, pre-term pre-labour rupture of membranes, substance use, intimate partner violence, post-natal depression and sexually transmitted infections. Adolescent focused guidelines are available from the Society of Obstetricians and Gynaecologists of Canada.^{289 291}

Sexually Transmitted Infections and Infectious disease screening

Given their infrequent interactions with the health care system, it is recommended that all health care encounters with youth be used as an opportunity to take a sexual history and assess their STI risk.²⁹²

Chlamydia and gonorrhea

The Canadian Task Force on Preventive Health care recommends opportunistic annual screening of all sexually active individuals under age 30, (who do not belong to a high-risk group), for chlamydia and gonorrhea, by self or clinician-collected sample. This is a conditional recommendation with very low-certainty evidence. The screening is to be done at primary care visits and is offered opportunistically.²⁹³ By contrast, the Public Health agency of Canada (PHAC) recommends screening for chlamydia for sexually active individuals under 25 and those 25 years and older who are at higher risk. No comment is made on the utility of self-swabs.²⁹⁴

The Canadian Pediatric Society recommends annual testing for those at average risk and more frequently for those at higher risk. They define higher risk as Inconsistent or no condom use, contact with someone known to have STI, a new partner, >2 partners in past year, serial monogamy, no contraception or only non-barrier contraception, any drug use (e.g. alcohol, marijuana, others – especially if associated with sex), previous STI, unsafe sexual practices (e.g. involving exchange of blood or sharing sex toys), sex workers and their clients, survival sex (e.g. exchange of sex for food, shelter, or drugs), street involvement/precarious housing, anonymous sex (sex with a stranger after meeting online or elsewhere), and experience of sexual assault or abuse. They also recommend testing 6 months after treatment if the risk of reinfection persists.²⁹² This is in contrast to the PHAC who recommends repeat screening 3 months post infection for all those with chlamydia as the risk of reinfection is high. This is different than a test of cure – the PHAC recommends a test of cure in the following situations (pregnant, questionable medication compliance, first line treatment not used, prepubertal, or ongoing symptoms post treatment).²⁹⁴ Nucleic acid amplification tests (NAAT) are used for urine and conjunctival, rectal, vaginal and cervical swabs.²⁹⁴

Vaginal self swabs

For patients with vaginas, vaginal self swabs may be more sensitive for diagnosis of chlamydia and gonorrhea compared with either swabs collected by health care providers or first catch urine samples,²⁹⁵ although the USPSTF finds no difference between the methods.²⁹⁶ Nevertheless, the ease and privacy of collecting a vaginal self swab may make this a preferred option.

Rectal and oropharyngeal swabs

The sites of sampling should be based on sexual history. Studies suggest that a significant proportion of STIs are missed when urine alone is used.^{297 298} Self-swabs are equally sensitive compared with clinician collected samples, and as above, may be preferred for ease and privacy.²⁹⁹

Trichomoniasis

Trichomoniasis is the most common STI-associated cause of vaginitis. Symptoms in women include frothy vaginal discharge, itch and dysuria although up to 50% may be asymptomatic. Men are generally asymptomatic but some may present with mild urethritis. Colonization is associated with an increase risk of HIV acquisition and transmission as well as complications in pregnancy. Trichomoniasis can be detected using a nucleic acid amplification test (NAAT). Swabs can be either cervical or vaginal; first void urine can also be used.³⁰⁰

Syphilis

Syphilis is the third most common sexually transmitted disease after chlamydia and gonorrhea. Rates of syphilis in Canada have been rising since the early 2000s and have risen substantially since 2017. While still more common in males, the rapid rise in cases in females is concerning. In females, primary lesions may be harder to identify leading to a delay in diagnosis and congenital syphilis is on the rise. There are documented outbreaks across Canada.^{301 302} The USPSTF recommends screening for syphilis in adolescents and adults at increased risk.³⁰³ However the updated Canadian guidelines recommend screening all sexually active individuals who have a new partner or multiple partners as well as anyone requesting testing. Suggested testing frequency is every 3 to 6 months in those with multiple partners.

³⁰⁴

Hepatitis B

The PHAC advises screening, with a blood test for hepatitis B surface antigen (HBsAg), high risk individuals; this includes those with high risk sexual practices, sharing of drug paraphernalia for injection or inhalation, using contaminated/shared equipment that breaks the skin eg tattoos, piercing, glucometers, exposure to blood/ body fluids – eg occupational, those who are immunocompromised or on immunosuppressive medication, household or sexual contacts of those known to have Hepatitis B, being born to a HBsAg-positive person, exposure to blood in endemic region without routine precautions/screening, having been born in, lived in or travelled to a region of higher endemicity, or being incarcerated or institutionalized, as well as those with a family history of hepatitis B or hepatoma.

³⁰⁵

According to the USPSTF, adolescents and adults at increased risk for hepatitis B infection should be screened for hepatitis B surface antigen. Those at risk, who were vaccinated in adolescence, should not avoid screening as they may have been infected prior to vaccination. At risk countries are defined in the articles.^{306 307}

Hepatitis C

No recommendation is made for screening for Hepatitis C (HCV) in the general pediatric population. The CPS recommends screening those with risk factors. Risk factors include antenatal exposure from a HCV positive mother, having lived in a region with high HCV prevalence, unprotected sexual contact where blood may be present, sexual assault, shared equipment for drug use including injection, nasal, and inhalation, non-sterile equipment for medical or dental procedures, tattoos, and piercings and medical procedures in locations where infection control practices may not have been adequate.³⁰⁸

Genital Herpes

Serologic screening for genital herpes is not recommended due to high false positive rates and risk of psychosocial harms.³⁰⁹

Mpox

Mpox, formerly known as monkey pox, is a viral infection which manifests with a characteristic rash and lymphadenopathy. Mpox is transmitted mainly through direct contact with an infected person or through sharing contaminated objects, although airborne and animal exposures may also be implicated. Treatment is mainly supportive. Smallpox vaccination is recommended for prevention for those in at-risk regions and communities.³¹⁰ See <https://www.cdc.gov/acip/vaccine-recommendations/> for persons at risk.

HIV screening

Canadian guidelines state that HIV screening should be offered as a component of routine care. Thus, a comprehensive behavioural risk assessment is not required when offering an HIV test.³¹¹ Asymptomatic screening can be offered at any time; however, for high-risk exposures testing is recommended at baseline and at 3 weeks and 6 weeks after exposure. Seroconversion occurs in 95% of infected individuals by 35 days, and the remaining individuals by 12 weeks. Note that this shorter course of testing is based on newer, recently introduced, testing methods.^{311 312}

The USPSTF recommends screening in adolescents and adults ages 15 to 65, and those younger and older who are at increased risk.³¹³ Screening of adolescents over the age of 15 years and adults up to age 65 years for HIV is recommended based on a high certainty of net benefit including early treatment to reduce AIDS-related events and death as well as reduction in HIV transmission to partners.³¹⁴ They state that all individuals should be screened as risk occurs both from sexual activity and injection drug use and that patients may be reluctant to disclose risk factors. For those under 15, “clinicians should consider the risk factors of their patients, especially those with new sex partners, and offer testing to patients at increased risk.” “Additional risk factors for HIV infection include having anal intercourse without a condom, having vaginal intercourse without a condom and with more than 1 partner whose HIV status is unknown, exchanging sex for drugs or money (transactional sex), having other sexually transmitted infections (STIs) or a sex partner with an STI, and having a sex partner who is living with HIV or is in a high-risk category. Persons who request testing for STIs, including HIV, are also considered at increased risk.”³¹⁵ Consider testing individuals who present with any of the following: risk factors for HIV; signs and symptoms of HIV infection, illnesses associated with a weakened immune system, a suspected exposure to HIV; are sexually active and have never been tested for HIV; were born, travelled to or resided in a country where HIV is endemic; are survivors of sexual assault; or are pregnant, planning a pregnancy or their partners.

Individuals at higher risk should be screened at least annually.

HIV: pre-exposure prophylaxis

Canadian guidelines state that there is moderate to high quality evidence to recommend pre-exposure prophylaxis (PrEP) for individuals at higher risk for HIV exposure including persons (men who have sex

with men (MSM) and transgender women) who report condomless anal sex and higher risk situations – see guideline for risk factors, as well as for the HIV negative partner in heterosexual sero-discordant relationship reporting condomless vaginal or anal sex with a partner who has a risk of transmissible HIV.

^{317 Phac 316 317 318 319} The PHAC recommends consulting a specialist or experienced colleague before prescribing.³²⁰ Pre-exposure prophylaxis can be used either continuously or “on demand” (prior to a planned higher risk encounter).

Post-exposure prophylaxis – as prevention for HIV

Post exposure prophylaxis is effective when given within 72 hours of a high-risk exposure.

Regimens are outlined in the 2017 Canadian guideline.³²¹

HIV Post exposure prophylaxis is effective when given within 72 hours of a high-risk exposure (however it should be taken as soon as possible). The 2017 Canadian guidelines recommend it be given to HIV negative individuals after moderate to high risk exposure for HIV transmission with a person who has a substantial risk of having transmissible HIV, and states that it can be considered for HIV negative individuals after an exposure that is moderate or high risk for HIV transmission with a person who has a low but non-negligible risk of having transmissible HIV. They define exposure risk as high risk – receptive anal and needle sharing, moderate risk – insertive anal, and vaginal receptive or insertive, and low risk – oral sex (giving or receiving), oral-anal contact, sharing sex toys, and blood on compromised skin. They further go on to stratify transmissibility, substantial – HIV positive and viremic (viral load > 40 copies/mL), HIV status unknown, but from a population with high HIV prevalence compared with the general population (men who have sex with men, people who inject drugs), low but nonzero - HIV positive and believed to have a viral load < 40 copies/mL; with concomitant sexually transmitted infection present at the time of exposure, and negligible or none - confirmed HIV negative, HIV positive with confirmed viral load < 40 copies/mL and no known sexually transmitted infections present at time of exposure and HIV status unknown, general population. Treatment regimens are available at <https://www.cma.ca/content/189/47/E1448>.

A “Pill-In-Pocket” or “Prophylaxis In Pocket” (PIP) approach to HIV post exposure prophylaxis prevention has been proposed. In this case, individuals at risk for unanticipated but infrequent exposure are given a full 28-day course of treatment to have on hand. This is intended for people with infrequent and unanticipated events where there would be an HIV risk. The idea behind this is that if a higher risk act occurs, the individual would be able to start the PEP medication as soon as possible on their own (as this needs to occur within 72 hours of the exposure of concern) – advantages include avoiding long ER wait times, avoiding potential stigma within the health care system, allowing people to navigate the finances of the treatment/looking in to coverage, and empowering the individual to manage their own PEP needs. Those who may benefit from PIP include: either sex trade workers or men who have sex with men of unknown serostatus, who mostly use condoms but occasionally don’t/in case a condom breaks or falls off, or those using IV drugs who generally do not share equipment but might occasionally. If someone is expected to need to use this more than 4 times in a year, they may benefit from going on PrEP (and in fact patients may transition b/w PrEP and PIP and vice versa). It is important to take a detailed sexual history to fully understand someone’s HIV risk status and prevention needs prior to prescribing PIP. Patients should be asked to see their health care provider within 7 days of starting the medications so that STI testing can be completed and a current negative HIV status can be confirmed (along with any other investigations or support that this person may need). This is also a good

opportunity to confirm that PIP is still the correct regimen for this person.³²² Treatment regimens are found at <https://doi.org/10.46747/cfp.7002107>.

Other pre-exposure prevention

Because of higher incidence in MSM, many public health units in Canada provide smallpox (for protection against Mpox) and Hepatitis A vaccination to this population". Across Canada Hepatitis B vaccine and HPV vaccine is provided on a population basis, with provincial variation on the ages at which these vaccines are given.^{323,324}

Other post-exposure prevention

A dose of 200mg of doxycycline may be used to prevent acquisition of gonorrhea, chlamydia and syphilis.³²⁵ Guidelines are found at <https://www.ncbi.nlm.nih.gov/books/NBK597440/table/table-1/>.³²⁶

Pre-exposure Prophylaxis (PrEP)
Pre-exposure prophylaxis indications <ul style="list-style-type: none"> MSM and transgender women those reporting condomless anal sex and other risk factors (see guideline – link below). Heterosexual partner reporting condomless vaginal or anal sex with a partner with a substantial <i>or non-negligible</i> risk of transmissible HIV People who inject drugs and share injection paraphernalia with a person with a non-negligible risk of HIV infection
Medication: tonfovir dioproxil fumarate/ emtricitabine 300/200 mg in a single tablet (TDF/FTC)
Regimens <ul style="list-style-type: none"> Recommended: one tablet of TDF/FTC daily Alternative on demand: two tablets TDF/FTC 2 to 24 hours prior to first sexual exposure, followed by one pill daily until 48 hours after last sexual activity. (See guideline for patient selection)
Note – Post Exposure prophylaxis requires additional medications and dosing See guidelines (links below) for full prescribing details

<https://www.cmaj.ca/content/189/47/E1448> PHAC

<https://www.canada.ca/en/public-health/services/diseases/hiv-aids/health-professionals.html>

La prophylaxie préexposition (PrEP)
Indications de la prophylaxie préexposition : <ul style="list-style-type: none"> HSH et femmes transgenres signalant des relations sexuelles anales sans préservatif et d'autres facteurs de risque (voir lignes directrices – lien ci-dessous). Partenaire hétérosexuel signalant des relations sexuelles vaginales ou anales sans préservatif avec un partenaire présentant un risque substantiel ou non négligeable de VIH transmissible. Les personnes qui s'injectent des drogues et partagent le matériel d'injection avec une personne présentant un risque non négligeable d'infection par le VIH.
Médication : fumarate de tonfovir dioproxil/emtricitabine 300/200 mg en un seul comprimé (TDF/FTC)
Posologie <ul style="list-style-type: none"> Recommandé : un comprimé de TDF/FTC par jour. Alternative sur demande : deux comprimés TDF/FTC 2 à 24 heures avant la première exposition sexuelle, suivie d'un comprimé par jour jusqu'à 48 heures après la dernière activité sexuelle. (Voir les directives pour la sélection des patients.)
Remarque : la prophylaxie post-exposition nécessite des médicaments et des doses supplémentaires Consultez les directives (liens ci-dessous) pour obtenir tous les détails de prescription.

Post Exposure Prophylaxis (PEP)

Post Exposure Prophylaxis indications

- Needs to be started within 72 hrs (the sooner the better)
- Recommended for HIV negative individuals after moderate to high risk exposure for HIV transmission with a person who has a substantial risk of having transmissible HIV
- Can be considered for HIV negative individuals after an exposure that is moderate or high risk for HIV transmission with a person who has a low but non-negligible risk of having transmissible HIV
- <https://www.cmaj.ca/content/189/47/E1448> for transmission risk and exposure risk information

Consider doxycycline for prophylaxis of gonorrhea, chlamydia and syphilis.

See full guideline for details.

<https://www.cmaj.ca/content/189/47/E1448>

<https://www.cfp.ca/content/70/2/107>

<https://www.catie.ca/doxycycline>

Prophylaxie post-exposition (PPE)

Indications de la prophylaxie post-exposition :

- Doit être démarré dans les 72 heures (le plus tôt sera le mieux).
- Recommandé pour les personnes séronégatives après une exposition à risque modéré à élevé de transmission du VIH avec une personne présentant un risque substantiel d'être atteinte du VIH transmissible.
- Peut être envisagé pour les personnes séronégatives après une exposition à risque modéré ou élevé de transmission du VIH avec une personne présentant un risque faible, mais non négligeable d'être infectée par le VIH.
- <https://www.cmaj.ca/content/189/47/E1448> pour obtenir des informations sur les risques de transmission et les risques d'exposition.

Envisagez une prophylaxie à la doxycycline contre la gonorrhée, la chlamydia et la syphilis.

Voir le guide complet pour plus de détails.

<https://www.cmaj.ca/content/189/47/E1448>

<https://www.cfp.ca/content/70/2/107>

<https://www.catie.ca/doxycycline>

STI resources for providers

Canadian STI and blood-borne infections guideline

<https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines.html>

HIV testing guidelines <https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/>

HIV pre-exposure and post-exposure prophylaxis

<https://www.cmaj.ca/content/cmaj/189/47/E1448.full.pdf>

Hep C Screening Infographic <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/hepatitis-c-screening-testing-health-professionals.html>

Ressources professionnelles sur les IST

Lignes directrices canadiennes sur les ITS et les infections transmissibles par le sang <https://www.canada.ca/fr/sante-publique/services/maladies->

infectieuses/sante-sexuelle-infections-transmissibles-sexuellement/lignes-directrices-canadiennes.html
Lignes directrices sur le dépistage du VIH https://hivtestingontario.ca/ontario-guidelines-for-providers-offering-hiv-testing/
Prophylaxie pré-exposition et post-exposition au VIH (anglais) https://www.cmaj.ca/content/cmaj/189/47/E1448.full.pdf
Infographie sur le dépistage de l'hépatite C https://www.canada.ca/fr/sante-publique/services/publications/maladies-et-affections/hepatite-c-depistage-diagnostic-professionnels-sante.html

Cervical cancer, STI and Infectious Disease Screening	
Cervical Cancer Screening - Not recommended in persons under 19 years.	
<i>Chlamydia and Gonorrhea</i>	<i>Screen all asymptomatic sexually active individuals under age 25 years</i>
	<i>Self-collected vaginal* or provider collected vaginal or cervical swabs, or urine (use first 10 to 20 ml of urine, Preferable to avoid voiding 2hrs prior but does not preclude testing)</i>
	<i>* Vaginal self-administered swabs are preferred for patients with vagina / cervix.. Instructions for sample collection should be given.</i>
	<i>Pharyngeal or rectal -can use self collected, for those at risk due to oral or anal sex.</i>
	<i>NAAT (nucleic acid amplification test) is preferred. If antibiotic resistance is a concern, add a culture swab as well.</i>
	Use vaginal* or cervical swabs (not urine) for those with female anatomy who are symptomatic or case contacts or pregnant.
HIV	Offer screening age 15 and above. Screen younger individuals if sexually active or other risk factors Consider PrEP for individuals at higher risk
Syphilis	Screen anyone with a new partner or multiple partners or anyone who asks. For those with multiple partners, screen every 3 to 6 months. Screening guidelines in pregnancy are updated.
Hepatitis A	Risk with anal-oral contact, advise immunization in those at risk
Hepatitis B	Ensure immunization is up to date <i>Screen high risk for HepBSAg</i> Risk factors: <ul style="list-style-type: none"> • High risk sexual practices • Sharing of drug paraphernalia for injection or inhalation • Using contaminated/shared equipment that breaks the skin eg tattoos, piercing, glucometers • Exposure to blood/ body fluids – eg occupational • HIV positive, immune compromised or on immunosuppressive medication • Household or sexual contacts of or born to a HBsAg-positive person, family history of Hep B or hepatoma • Region of higher endemicity: born, lived in or travelled to • Exposure through blood in endemic region without routine precautions/screening • Incarcerated or institutionalized
Hepatitis C	High risk Risk factors: <ul style="list-style-type: none"> • Born to HCV pos mother • Unprotected sex with risk of blood exposure • Sexual assault

	<ul style="list-style-type: none"> • Non-sterile or inadequately sterilized equipment for injections, tattoos, piercings and procedures • Shared drug equipment – injection, nasal or inhalation • Shared personal care items • Having visited or lived in a region with high HCV prevalence • Medical procedures with potentially non-sterile equipment
Herpes simplex	Not recommended for primary screening

PHAC, CDC, SOGC, CPS

Dépistage du cancer du col de l'utérus, des IST et des maladies infectieuses	
Dépistage du cancer du col de l'utérus - Déconseillé aux personnes de moins de 19 ans.	
Chlamydia et gonorrhée	<i>Dépister toutes les personnes asymptomatiques sexuellement actives de moins de 25 ans.</i>
	<i>Voie vaginale autocollectée*, ou le prestataire a collecté des écouvillons vaginaux ou cervicaux, ou de l'urine. (Utiliser d'abord 10 à 20 ml d'urine, préférable d'éviter d'uriner 2 heures avant, mais n'empêche pas le test.)</i>
	<i>*Les écouvillons vaginaux autoadministrés sont préférables pour les patientes présentant un vagin/un col de l'utérus. Des instructions pour le prélèvement des échantillons doivent être données.</i>
	<i>Pharyngé ou rectal : peut être utilisé soi-même, pour les personnes à risque en raison de relations sexuelles orales ou anales.</i>
	<i>Le TAAN (test d'amplification des acides nucléiques) est préférable. Si la résistance aux antibiotiques est un problème, ajoutez également un écouvillon de culture.</i>
	Utilisez des prélèvements vaginaux* ou cervicaux (pas d'urine) pour les personnes d'anatomie féminine qui présentent des symptômes, qui sont en contact avec le cas ou celles qui sont enceintes.
VIH	Proposer un dépistage à partir de 15 ans. Dépister les individus plus jeunes s'ils sont sexuellement actifs ou présentant d'autres facteurs de risque. Envisagez la PrEP pour les personnes à risque plus élevé.
Syphilis	Dépister toute personne ayant un nouveau partenaire ou plusieurs partenaires ou toute personne qui le demande. Pour ceux qui ont plusieurs partenaires, effectuez un dépistage tous les 3 à 6 mois. Les directives de dépistage pendant la grossesse sont mises à jour.
Hépatite A	Risque de contact anal-oral, conseiller la vaccination chez les personnes à risque.
Hépatite B	S'assurer que la vaccination est à jour <i>Dépister un risque élevé pour l'AgHBs</i> Facteurs de risque : <ul style="list-style-type: none"> • Pratiques sexuelles à haut risque ; • Partage d'accessoires de drogue pour injection ou inhalation ; • Utiliser du matériel contaminé/partagé qui brise la peau, par exemple des tatouages, des piercings, des glucomètres ; • Exposition au sang/liquides corporels, par exemple en milieu professionnel. • Séropositif, immunodéprimé ou prenant des médicaments immunosuppresseurs ; • Contacts familiaux ou sexuels d'une personne née d'une personne AgHBs positive, antécédents familiaux d'hépatite B ou d'hépatome ; • Région de plus forte endémicité : née, vécue ou voyageée ; • Exposition par le sang dans une région endémique sans précautions/dépistage de routine ;

	<ul style="list-style-type: none"> • Incarcéré ou institutionnalisé.
Hépatite C	Risque élevé. Facteurs de risque : <ul style="list-style-type: none"> • Né d'une mère infectée par le VHC ; • Rapports sexuels non protégés avec risque d'exposition au sang ; • Agression sexuelle ; • Matériel non stérile ou insuffisamment stérilisé pour les injections, les tatouages, les perçages et les procédures ; • Équipement pharmaceutique partagé – injection, voie nasale ou inhalation ; • Articles de soins personnels partagés ; • Avoir visité ou vécu dans une région à forte prévalence du VHC ; • Procédures médicales avec du matériel potentiellement non stérile.
Virus Herpès simplex	Non recommandé pour le dépistage primaire.

Nutrition

Nutrition, Calcium and Vitamin D

The importance of nutrition in the health of children is readily appreciated. Clear evidence exists for diet as a crucial causal factor in coronary artery disease and there is growing evidence that nutrition plays a key role in some cancers and chronic diseases such as hypertension and diabetes.³²⁷

The Nutritional Recommendations chart in the supplemental pages of the GHR has been updated to reflect changes in Canada's Food Guide. The Food Guide is an evidence-based nutrition resource. Recommendations include the following: "Vegetables, fruit, whole grains, and protein foods should be consumed regularly. Among protein foods, consume plant-based more often. Foods that contain mostly unsaturated fat should replace foods that contain mostly saturated fat. Water should be the beverage of choice. Eating together can help to reinforce positive eating habits. Cooking and preparing food at home can help support healthy eating. Traditional food improves diet quality among Indigenous Peoples. Energy needs are individual and depend on a number of factors, including physical activity."³²⁸ These recommendations are similar to updated guidelines from the U.S. and U.K. The U.S. guidelines recommend a variety of vegetables and fruits; grains with a preference for whole grains; lower-fat dairy or milk alternatives such as fortified soy beverages and yogurts, protein including lean meat and poultry, eggs, and seafood as well as alternatives such as beans, peas, lentils, nuts, seeds and soy products; and finally oils as opposed to fats. Limited consumption of added sugars, saturated fats, sodium and alcoholic beverages is recommended and calories tailored to individual needs. Cooking and preparing food at home is promoted.³²⁹ The U.K. guidelines recommend daily a variety of fruits and vegetables, at least 5 portions and comprising over one third of daily intake; starches and grains with a preference for higher fibre and whole-grains; proteins such as beans, peas, lentils, eggs, lean meats with a recommendation for 2 servings of fish per week, one of which should be oily; dairy or dairy alternatives such as soy. Consuming appropriate amounts of unsaturated oils and fats are recommended, as is limiting foods high in fat, salt and sugar. Water, lower fat milk and beverages not containing sugar are recommended.³³⁰ Of the three guides, only the Canadian guidelines specifically state that water is the beverage of choice and that plant-based proteins should be chosen more often.

Consumption of sugar-sweetened beverages is strongly associated with childhood obesity.³³¹ Sweetened carbonated beverage intake is associated with lower intake of calcium.³³² Recommended daily reference intakes are provided by Health Canada.³³³

Universal screening for vitamin D levels is not recommended in healthy individuals or those with dark skin or obesity. There is insufficient evidence to show benefit. Bone mineralization peaks at around 12.5 years in girls and 14 years in boys. By age 18, 90% of the peak bone mass has been attained. To optimize adult bone health, proper intake of calcium, Vitamin D and protein must be assured during childhood and particularly adolescence. Recommended daily intake is 600 IU per day. This can be achieved through diet or with a supplement of 400 IU of vitamin D.^{334 335 336} High sodium intake should be avoided as it increases calcium excretion. Weight-bearing exercise and maintenance of a health body mass is also beneficial.^{332 337 338}

It should be noted that Vitamin D deficiency and rickets is disproportionally prevalent in northern Indigenous children. Causal factors include lack of sunlight combined with inadequate dietary intake. While traditional foods provided Vitamin D, the shift to non-traditional diets and worsening food insecurity are increasingly problematic. Prevention focuses on achieving sufficient maternal stores during pregnancy and supplementation in early childhood. Advocacy is required to assure access to adequate supplementation. For older children, consumption of Vitamin D fortified milk and “milks” as well as 2 servings of fish and sea mammals per week is recommended.^{339 340}

Nutritional Recommendations		
Eat vegetables, fruit, whole grains and protein foods.		
Protein - Among protein foods consume plant-based more often. Protein foods include legumes, nuts, seeds, tofu, fortified soy beverage, fish, shellfish, eggs, poultry, lean red meat including wild game, lower fat milk, lower fat yogurts, lower fat kefir, and cheeses lower in fat and sodium		
Choose foods with mostly unsaturated fats rather than mostly saturated fats		
Water should be the beverage of choice		
Eating together such as family meals, can foster healthy eating habits		
Energy needs are individual and should be adjusted to maintain a healthy weight		
Processed or prepared items with excessive sodium, free sugars (such as sugary drinks and confectioneries) or saturated fat should not be consumed regularly. Unsweetened nutritious foods and beverages should be promoted instead of sugar substitutes.		
Cooking and preparing food at home can help support healthy eating. Food labels can help in making informed food choices.		
Recommended daily intake	4 to 8 years	9 to18 years
Calcium (mg)	1000	1300
Upper limit (maximum)	2500	3000
Vitamin D (IU) Health Canada	600	600
Source	Through diet or a supplement of 400IU	Through diet or a supplement of 400IU
Upper limit (maximum)	3000	4000
	No adjustment for latitude, pregnancy or lactation	

See RDI tables <https://www.canada.ca/en/health-canada/services/food-nutrition/healthy-eating/dietary-reference-intakes/tables/reference-values-elements.html>

Source: www.canada.ca/en/health-canada <https://food-guide.canada.ca> food-guide.canada.ca AAP

Recommandations nutritionnelles

Mangez des légumes, des fruits, des grains entiers et des aliments protéinés.

Protéines : parmi les aliments protéinés, on consomme plus souvent des aliments à base de plantes. Les aliments protéinés comprennent les légumineuses, les noix, les graines, le tofu, les boissons de soja enrichies, le poisson, les fruits de mer, les œufs, la volaille, la viande rouge maigre, y compris le gibier sauvage, le lait faible en gras, les yaourts faibles en gras, le kéfir faible en gras et les fromages faibles en gras et en sodium.

Choisissez des aliments contenant principalement des **graisses insaturées** plutôt que des graisses saturées.

L'eau devrait être la boisson de choix.

Manger ensemble, comme les repas de famille, peut favoriser de saines habitudes alimentaires.

Les besoins énergétiques sont individuels et doivent être ajustés pour maintenir un poids santé.

Les aliments transformés ou préparés contenant trop de sodium, de sucres libres (comme les boissons sucrées et les confiseries) ou de graisses saturées ne doivent pas être consommés régulièrement. Les aliments et boissons nutritifs non sucrés devraient être favorisés plutôt que les substituts du sucre.

Cuisiner et préparer des aliments à la maison peut contribuer à favoriser une alimentation saine. Les étiquettes alimentaires peuvent aider à faire des choix alimentaires éclairés.

Apports nutritionnels recommandés (ANR)	4 à 8 ans	9 à 18 ans
Calcium (mg)	1000	1300
Limite supérieure (maximale)	2500	3000
Vitamine D (UI)	600	600
Source	Par un régime ou un supplément de 400 UI	Par un régime ou un supplément de 400 UI
Limite supérieure (maximale)	3000	4000
	Aucun ajustement pour la latitude, la grossesse ou l'allaitement.	

Voir tableaux de ANR <https://www.canada.ca/fr/sante-canada/services/aliments-nutrition/saine-alimentation/apports-nutritionnels-reference/tableaux/valeurs-reference-relatives-elements.html>

Source: www.canada.ca/en/health-canada <https://food-guide.canada.ca> food-guide.canada.ca AAP

Food Guide Snapshot – available in many languages



Nutrition and Puberty

Obesity is associated with earlier onset of menarche. The quality of nutrition may influence the timing of puberty by several months even in the absence of obesity. A review of observational studies shows a delay of puberty onset in young girls with higher intakes of vegetable protein and lower intakes of animal protein.^{341 342}

Nutrition - Anemia

We know that low serum ferritin values in early childhood are associated with lower cognitive function, hence some recommend screening although the USPSTF states that there is insufficient evidence.^{343 344} However, no recommendation is made for older children. In Canada, an estimated 3% of primary school-aged children are anemic. More are iron deficient. Iron deficiency has been associated with impaired cognitive and physical development.³⁴⁶

Adolescent females with anemia have poorer scholastic achievement, cognitive function and audiovisual reaction time. The AAP in Bright Futures recommends screening for anemia in those at higher risk. There are no evidence-based recommendations for screening for iron deficiency.^{28 347} Risk factors that have been identified for iron deficiency are heavy periods, low iron intake eg vegetarian or vegan diet, previous diagnosis of anemia.^{337 348 349} There is evidence that risk-based questionnaires do not detect iron deficiency or anemia.³⁵⁰ The supplementary pages in the Greig Health record include a table outlining who is at risk for iron deficiency and anemia. Ferritin is the recommended test for iron deficiency.

Risk factors for iron deficiency in Adolescents

Measure serum ferritin in those at risk
 Less than 20 µg/L is consistent with iron deficiency, and less than 30 µg/L with anemia or microcytosis also warrants treatment.
 Major risk factors

Heavy menstrual loss
Vegetarian or vegan diets or low iron intake
History of anemia
Regular blood donation (Canadian Blood Services allows ≥ 17 years old)
Minor risk factors
Female
Obesity
Low socioeconomic status
Endurance athlete
Periods of rapid growth
Chronic inflammation – eg rheumatologic conditions, inflammatory bowel disease

Adapted From Powers J, UpToDate, Sekhar DL, J Com. Health 2015(2)331-8, BC Health

Facteurs de risque de carence en fer chez les adolescents
Mesurer la ferritine sérique chez les personnes à risque. Une valeur inférieure à 20 µg/L est compatible avec une carence en fer, et une valeur inférieure à 30 µg/L avec une anémie ou une microcytose justifie un traitement.
Facteurs de risque majeurs :
• forte perte menstruelle ;
• régimes végétariens ou végétaliens ou faible apport en fer ;
• histoire de l'anémie ;
• don de sang régulier (la Société canadienne du sang autorise les personnes de > 17 ans).
Facteurs de risque mineurs :
• sexe féminin ;
• obésité ;
• faible statut socio-économique ;
• athlète d'endurance ;
• périodes de croissance rapide ;
• inflammation chronique, par exemple affections rhumatologiques, maladie inflammatoire de l'intestin.

Adapté de From Powers J, UpToDate, Sekhar DL, J Com. Health 2015(2)331-8, BC Health

Body Image / Eating disorders

Estimates of prevalence of eating disorders in Canadian children and adolescents have been around 5%.³⁵¹ Since the onset of the COVID-19 pandemic, there has been a rise in the incidence of eating disorders in adolescents.^{352 353}

The Canadian Paediatric Society has produced a guideline for the community management of eating disorders. They report that eating disorders in males, those of normal or elevated BMI, prepubertal children and those of sexual or racial minorities may be missed. The Canadian Paediatric Society recommends asking about diet, weight and body image through structured screening psychosocial history taking. Screening can be done with the HEADSSS or similar questionnaires. Further screening is recommended using either the SCOFF Questionnaire or The Eating Disorder Screen for Primary Care. Furthermore the CPS Position statement gives guidance for initial community management of eating disorders.^{354 355}

The USPSTF gives screening for eating disorders in children 10 and older as well as adults an I rating. There is insufficient evidence for population screening. However, they do state that, “Clinicians should be aware of the risk factors, signs, and symptoms of eating disorders, listen to any patient concerns about eating, and make sure that persons who need help get it. The decision to screen should be based on each patient’s individual risk factors and circumstances.” Signs of a possible eating disorder include

“rapid weight loss, weight gain, or pronounced deviation from growth trajectory; pubertal delay; bradycardia; oligomenorrhea; and amenorrhea”.^{356 357}

For those with signs or symptoms, screening tools exist. The Ottawa Disordered Eating Screening Tool for Youth is a short 2-question screen.³⁵⁸ The SCOFF screen³⁵⁹ was developed in the UK for use in primary care and the Eating Disorder Screen for Primary Care³⁶⁰ also in the UK for use in primary care and university students. All of the screens require further study to ensure their validity. A standardized self-report questionnaire, the EAT-26 is also available but does not detect binge eating.^{361 362} Monitoring of height and weight measurements is also recommended for assessment.³⁶³

Avoidant and Restrictive Food Intake Disorder (ARFID) is a relatively new addition to the DSM-V. The disturbed eating pattern leads to a paucity in the variety or volume of food resulting in failure to meet the individual’s energy or nutritional requirements or causes psychosocial issues. Sufferers are more likely males and ages 4 to 11 years.³⁶⁴

Health care providers should be aware that weight-related problems, including obesity, eating disorders and disordered eating, have risk and protective factors in common. Sensitivity to this information is important in the prevention of weight-related problems³⁶⁵.

Ottawa Disordered Eating Screening Tool for Youth	
Over the past 3 months, has your weight and/or shape influenced how you think about (judge) yourself as a person?	Yes/No
Over the past 6 months, have you fasted (skipped at least 2 meals in a row) or eaten what other people would regard as an unusually large amount of food (e.g. a quart of ice cream) given the circumstance and experienced a loss of control (felt like you couldn't stop eating or control how much you were eating)?	Yes/No
A 'yes' on both questions indicates a positive screen	

Obeid N et al Pediatr. 2019 Dec;215:209-215.

Outil de dépistage Ottawa des troubles alimentaires pour les jeunes	
Au cours des 3 derniers mois, ton poids et/ou ta silhouette ont-ils influencé la façon dont tu te considères (juges) en tant que personne ?	Oui/Non
Au cours des 6 derniers mois, as-tu jeûné (sauté au moins 2 repas d'affilés) ou mangé ce que d'autres personnes considéreraient comme une quantité de nourriture inhabituellement importante (par exemple, un litre de crème glacée) parce que tu en as eu l'opportunité et as-tu ressenti une perte de contrôle (avoir l'impression de ne pas pouvoir arrêter de manger ou contrôler la quantité que tu as mangé) ?	Oui/Non
Un « oui » aux deux questions indique un dépistage positif.	

Obeid N et al Pediatr. 2019 Dec;215:209-215.

Eating Disorder Screen for Primary Care	
Are you satisfied with your eating patterns?	Yes/No
Do you ever eat in secret?	Yes/No

Does your weight affect how you feel about yourself?	Yes/No
Have any members of your family suffered from an eating disorder?	Yes/No
Do you currently suffer with or have you ever suffered in the past with an eating disorder?	Yes/No
A 'no' on question 1, and 'yes' on questions 2-4 are considered 'abnormal' responses	

Cotton MA et al. Four simple questions can help screen for eating disorders. J Gen Intern Med. 2003 Jan;18(1):53-6

Dépistage des troubles de l'alimentation pour les soins primaires	
Es-tu satisfait de tes habitudes alimentaires ?	Oui/Non
Est-ce qu'il t'arrive de manger en secret ?	Oui/Non
Ton poids affecte-t-il la façon dont tu te sens ?	Oui/Non
Des membres de ta famille ont-ils souffert d'un trouble de l'alimentation ?	Oui/Non
Souffres-tu actuellement ou as-tu déjà souffert dans le passé d'un trouble de l'alimentation ?	Oui/Non
Un « non » à la question 1 et un « oui » aux questions 2 à 4 sont considérés comme des réponses « anormales ».	

Cotton MA et al. Four simple questions can help screen for eating disorders. J Gen Intern Med. 2003 Jan;18(1):53-6

Eating Disorders Screen	
EAT – 26	https://www.eat-26.com/downloads/

Questionnaire de dépistage des troubles alimentaires	
EAT – 26	https://www.cliniquepta.com/questionnaire-de-depistage/

Eating Disorder Resources
National Eating Disorder Information Centre and Helpline https://nedic.ca/ Call 1-866-633-4220
Canped: Understanding Eating Disorders in Adolescence - caregiver support and information https://canped.ca/
Information for Caregivers: https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/healthy-living-vie-saine/mental-health-teen-eating-disorders-sante-mentale-jeunes-troubles-alimentation/alt/pub-eng.pdf

Troubles alimentaires
National Eating Disorder Information Centre and Helpline – en anglais seulement https://nedic.ca/ Call 1-866-633-4220
Anorexie et Boulimie Québec https://anebquebec.com/ Ligne d'écoute 1-800-630-0907
Renseignements https://www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/healthy-living-vie-saine/mental-health-teen-eating-disorders-sante-mentale-jeunes-troubles-alimentation/alt/pub-fra.pdf

Special Diets

Properly balanced vegetarian diets are thought to provide adequate nutrition for growing children. In general studies show trends towards lower body weight, improved lipid levels and higher intakes of folate, vitamin C and dietary fibre. A lowering of risk for obesity has been suggested. Some studies suggest lower levels of Vitamin B12 and Vitamin D. Additionally, attention to protein intake, iron, zinc, essential fatty acids, and calcium is recommended.^{366 367 368 369} Monitoring of height is also required as a small proportion of vegans and vegetarians may have growth restriction.³⁷⁰ Supplementation with vitamin B12 is recommended in vegan diets.^{371 372} Vegetarianism is popular in adolescence and there may be an association with disordered eating.³⁷³

Special Diets
Ask about special diets such as vegetarian, gluten-free, dairy or lactose free
Ask about supplements, alternative medicine

Régimes spéciaux
Demander s'il y a des régimes spéciaux qui sont suivis tels que végétarien, sans gluten, sans produits laitiers ou sans lactose.
Demander au sujet des suppléments et la médecine alternative.

Obesity

The proportion of Canadian adolescents who are overweight or obese is significant. In 2021, that figure was 27.2 percent³⁷⁴. Figures from 2017, showed 30% of individuals aged 5 to 17 years are overweight or obese.³⁷⁵ The effects of the COVID-19 pandemic are yet to be fully assessed.

The USPSTF concludes with moderate certainty that screening for obesity is of moderate net benefit. But their review shows that intensive counselling (of 26 hours or more) is required to achieve weight improvements for up to 12 months.³⁷⁶ The Canadian Task Force on Preventive Health Care recommends growth monitoring using the WHO growth charts to monitor growth.³⁷⁷ However, structured interventions for prevention of overweight and obesity, (primary prevention), lack evidence for long-term improvements.³⁷⁸ It is important to recognize obesity as a consequence of genetic, social and environmental factors. There is an inherent risk of failure to recognize these factors that cause and maintain health inequities.³⁷⁹ Zhu et al note that interventions to improve socio-economics may help reduce the prevalence of obesity as obesity is linked to birthweight, parental BMI, free-time activities in children 8 and up and lack of parental high school completion.³⁸⁰ Recognizing that factors exist which cannot be modified by the parent or individual, consequently requires a shift focus to body positivity and healthy lifestyle irrespective of body-size.³⁸¹ Canadian pediatric obesity guidelines are currently under development.³⁸² For the time being, we must rely on existing guidelines and evidence. The AAP has a guideline for evaluation and treatment.³⁸³

Obesity Prevention

U.S. guidelines from the Endocrine Society task force also suggest that obesity prevention through the following: healthy diets avoiding high-calorie, nutrient-poor foods, also known as highly-processed foods (HPF) and sweetened drinks and fruit juices; 60 minutes of physical activity 5 times per week; healthy sleep habits; screen time limitation; use of school and community based prevention; and breast-feeding of infants.³⁸⁴ Canada's Food Guide gives examples of HPFs.³⁸⁵ Similarly the Centre for Effective Practice recommends Goal Setting around the following areas: importance of satiety/fullness, household meals, reduction of liquid calories, limiting eating out, the importance of sleep and physical activity. Free sugars in the form of added sugars and also those naturally found in honey, syrups and fruit juices are a significant concern. The WHO reports good evidence to keep these sugars to less than 10% of the total energy intake. The sugars present in fresh fruits and vegetables as well as those in milk are not associated with the same consequences of overweight, obesity and dental caries.³⁸⁶ A recent study of preschool children showed bakery goods and sweetened breakfast cereals as a source of excess sugar.³⁸⁷

Healthy fats are important nutrients for energy, growth and development and aid in the absorption of fat-soluble vitamins.³⁸⁸ adolescents generally 25-35% of dietary calories should come from fat sources including healthy nuts, seeds, vegetable oils and fish. Choosing unsaturated over saturated fats is recommended although saturated fats should comprise up to 10% of daily calories. Addition of trans-fats to foods has been banned in Canada.^{389 390 391} Concerns have been expressed over the use of high heat and hexane used in the processing of seed oils, (eg. non-cold-pressed canola oil). Thus far, evidence to support or refute this concern is lacking.

A table with recommendations for preventing excess childhood weight gain is include in the Greig Health Record. While there is some overlap with the nutrition and physical activity guideline tables in the GHR, it is felt that providing a concise table with some of the more important recommendations for parents and caregivers is helpful.^{392 393 394 395}

Selected measures to prevent excess childhood weight gain	
INTERVENTION	RECOMMENDATION
Eat more fruits and vegetables	≥ 5 servings /day (or as appropriate for age as specified in Canada's Food Guide)
Limit free sugars and highly processed foods	Avoid sweetened fruit drinks, sport-drinks, energy drinks and carbonated soft-drinks. Reduce foods with added sugars, honey, syrups, fruit juices and fruit juice concentrates For example, reduce baked goods, sugary cereals, fast foods and frozen prepared meals
Eat breakfast	<i>Eat breakfast every day.</i>
Eat family meals	<i>Eat family meals together as much as possible through the week, including breakfast and dinner.</i>
Avoid distractions while eating	Do not eat while viewing television, video games, other screens.
Meals outside the home	Limit eating out and minimize 'fast foods'
Importance of satiety / fullness	Self-regulated by child, Include protein sources at every meal to promote a feeling of fullness.
Physical activity	≥ 1 hour per day
Sleep time	Adequate sleep (see recommendations)
Screen time	<i>Maximum 2 hours per day after 2 years of age; no television or video games in bedroom</i>

Mesures sélectionnées pour prévenir la prise de poids excessive chez l'enfant	
INTERVENTION	RECOMMANDATION
Mangez plus de fruits et légumes	≥ 5 portions/jour (ou selon l'âge spécifié dans le Guide alimentaire canadien).
Limiter les sucres libres et <i>aliments hautement transformés (AHT)</i> dans l'alimentation	Éviter les boissons aux fruits sucrées, les boissons pour sportifs, les boissons énergisantes et les boissons gazeuses. Réduire les aliments contenant des sucres ajoutés, du miel, des sirops, des jus de fruits et des concentrés de jus de fruits. Par exemple : les produits de boulangerie et les céréales sucrées, les fast-foods, les plats préparés, repas surgelés
Prendre le petit-déjeuner	<i>Prendre un petit-déjeuner tous les jours.</i>
Mangez des repas en famille	<i>Prendre des repas en famille ensemble autant que possible tout au long de la semaine, y compris le petit-déjeuner et le dîner.</i>
Évitez les distractions en mangeant	Ne mangez pas en regardant la télévision, en jouant à des jeux vidéo ou en utilisant d'autres écrans.
Repas à l'extérieur de la maison	Limiter les sorties au restaurant et minimiser les « fast foods ».
Importance de la satiété/plénitude	Autorégulé par l'enfant. Inclure des sources de protéines à chaque repas pour favoriser une sensation de satiété.
Activité physique	≥ 1 heure par jour.
Temps de sommeil	Un sommeil suffisant (voir recommandations).
Temps d'écran	<i>Maximum 2 heures par jour après l'âge de 2 ans ; pas de télévision ni de jeux vidéo dans la chambre.</i>

Adapté de Bosomworth Can Fam Phys 2012;58(5):517-23, Guide alimentaire canadien
WHO <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>

Sugar Substitutes

The use of sugar substitutes or non-nutritive sweeteners (NNS) by children is on the rise. While parents mostly recognise that artificial sweeteners may not be safe, they may not recognize that items label as reduced sugar may contain an NNS. Studies suggest that consumption of NNS leads to craving of sugar and calories and may be linked to rising rates of overweight and obesity. There is currently no evidence to support a link to autism or ADHD. In individuals with diabetes or obesity, substituting sugars with NNS may be beneficial.^{396 397} Given the paucity of data, it may be prudent to recommend avoidance of NNS in the general paediatric population. Choosing unsweetened nutritious foods and drinks is recommended.³⁹⁸

Active Healthy Living

Physical Activity and Reducing Sedentary Behaviour

In 2016 the Canadian 24-Hour Movement Guidelines for Children and Youth (ages 5 -17 years) were developed. These are the world's first evidence-based guidelines for activity for the whole day. The guidelines were developed by "the Healthy Active Living and Obesity Group (HALO) of the Children's Hospital of Eastern Ontario (CHEO) Research Institute, the Canadian Society for Exercise Physiology (CSEP), ParticipACTION, The Conference Board of Canada, the Public Health Agency of Canada and a group of leading researchers from around the world, with the input of over 700 national and international stakeholders." The main categories for the guidelines include SWEAT (for moderate to vigorous physical activity), STEP (for light physical activity), SLEEP and SIT (for sedentary behaviour).³⁹⁹ The Canadian guidelines recommend at least 60 minutes per day of moderate-to-intense physical activity for school-aged children and youth. This should involve a variety of aerobic activities. The guidelines further qualify that vigorous physical activity should occur at least 3 days per week and muscle and bone strengthening activities should be also incorporated at least 3 days per week. In addition, each day should include several hours of structured and unstructured light physical activity, sleep of 9 to 11 hours for ages 5 to 13 years, sleep of 8 to 10 hours for those aged 14 to 17 years, no more than 2 hours of recreational screen time and sitting for extended periods should be limited.^{399 400} These recommendations are similar to the U.S. guidelines.⁴⁰¹ Similarly the UK guidelines recommend 60 minutes of physical activity per day for movement skills and muscle and bone strength, and reducing inactivity.⁴⁰²

The Benefits of Increasing Physical Activity and Reducing Sedentary Behaviour

There is evidence that regular moderate-to-vigorous aerobic physical activity (PA) improves body composition, cardio-metabolic health, bone health and overall physical fitness.^{403 404 405 406 407 408 409}

There is also evidence that there are benefits for cognitive executive function and cognitive testing,^{410 411 412 413} and daily moderate-to-vigorous PA improves working memory, and daily vigorous exercise reduces depressive symptoms.^{414,415} There is evidence for improvement in attention and hyperactivity in children with ADHD.⁴¹² Individual studies show varying levels of evidence from very low to moderate, but systematic review shows better evidence for benefit with vigorous PA as opposed to lower intensity activities.⁴⁰³

Early exposure to many different sports, sports sampling, is associated with increased physical activity in adolescence.⁴¹⁶

Canadian 24-hour Movement Guidelines	
Sweat	– 60 min of heart-pumping physical activity Include vigorous PA for 60 min. ≥ 3 days per week Include muscle and bone strengthening ≥ 3 days per week
Step	– several hours of light physical activity
Sleep	– 9 to 11 hours – ages 5 to 13 years – 8 to 10 hours – ages 14 to 17 years
Sit	– no more than 2 hrs recreational screen time limit sitting for extended periods

<https://csepguidelines.ca>

Tremblay MS et al. Appl. Physiol. Nutr. Metab. 2016;41(6):S311-327

Directives canadiennes en matière de 24 heures	
Suer :	60 minutes par jour d'activité physique, intensité moyenne à élevée, comprenant une variété d'activités aérobiques. Des activités physiques d'intensité élevée ≥ 3 jours par semaine.

	Des activités pour renforcer les muscles et les os ≥ 3 jours par semaine.
Bouger :	Plusieurs heures d'activités physiques d'intensité légère.
Dormir :	De 9 à 11 heures de sommeil pour les 5 à 13 ans. De 8 à 10 heures de sommeil pour les 14 à 17 ans.
S'asseoir :	Maximum de 2 heures de loisir devant un écran. Limiter les périodes prolongées en position assise.

<https://csepguidelines.ca>

Tremblay MS et al. Appl. Physiol. Nutr. Metab. 2016;41(6):S311-327

Benefits of Free Play	
Improved	<ul style="list-style-type: none"> • physical health, • cognitive abilities • academic performance • mental health
Reduced	<ul style="list-style-type: none"> • Obesity • environmental allergies.

Avantages du jeu libre -sans règles, sans structure	
Amélioration :	<ul style="list-style-type: none"> • de la santé physique ; • des capacités cognitives ; • des performances scolaires ; • de la santé mentale.
Réduction :	<ul style="list-style-type: none"> • de l'obésité ; • des allergies environnementales..

How are we doing?

The 2022 Participaction Report for children and youth showed worryingly small percentages of Canadian children and youth meeting targets for physical activity and sedentary behaviours. One study showed only 17.5% of children and 11.6% of youth met the physical activity targets while another, a survey, reported only 37% of youth meeting the targets. A systematic review found that there were consistent declines in activity level compared with pre-pandemic measures. Only 16.5% of children and 3% of youth met screen time recommendations. Less than half of children commute actively (walking, cycling etc.) to school – either solely or partially. Only one quarter of children met the 840 minute per week target of unstructured play.

Counselling along with written information can modestly increase physical activity. Handouts with physical activity tips are available from the Canadian Paediatric Society⁴¹⁷, the Public Health Agency of Canada⁴¹⁸ and the Canadian Society for Exercise Physiology.³⁹⁹

Outdoor Play & Taking Risks

The Participaction recommendations for unstructured play are based on consensus as “A lack of valid and reliable outdoor play measurement tools continues to be a major research barrier and subsequently a major barrier in quantifying this indicator and establishing benchmarks”.⁴¹⁹

The benefits of unstructured free play, especially in nature, are numerous, including improved physical health, cognitive abilities and academic performance, and mental health as well as reduced obesity and environmental allergies.⁴²⁰

The CPS position statement on outdoor risky play discusses finding a balance between risk of injury and the benefits of creative, spontaneous and self-directed play, which may include rough and tumble play, activities at height or including speed, and especially play in nature. Benefits may include physical fitness, a life-long improvement in engagement in physical activity, improved immune system modulation through exposure to plants and natural elements, lowered rates of bullying, and improvement in problem solving, conflict sensitivity, self-esteem, and concentration. Exposure to fear provoking situations may lead to reduced risk for anxiety.^{421 422 423} This is not to say that there should not be adequate supervision and adult assessment of play environments.

Playground safety involves not only assessment of the environment but also ensuring that the child's clothing and gear is suited to the environment. Drawstrings, scarves, skipping ropes, and helmets can pose a risk while using playground equipment.^{424 425 426}

Abduction

Concerns about stranger abduction are often voiced by parents and given as a barrier to outdoor play. Rates of stranger abduction in Canada are low. The main cause of missing children is, unfortunately running away.⁴²⁷ The causes of running away are numerous, but most are related to an attempt to escape. There may be a history of abuse or neglect or mental health issues. Early identification of youth at risk and providing community supports and alternatives to living on the street can be helpful.⁴²⁸

Sleep

Sleep is essential for optimal health in children and adolescents. Longer sleep duration is associated with better cognitive performance, better working memory and memory consolidation, and fewer behavioural problems. Improved sleep quality and sleep duration are associated with better school performance, improved teacher-rated alertness and emotional regulation.⁴²⁹ Physical health is also improved, including lower indicators of body fat.^{430 431 432}

Sleep duration is recommended to be 9 to 11 hours for ages 5 to 13 years and 8 to 10 hours for ages 14 to 17 years. Unfortunately, most children and adolescents do not meet these targets.^{433 434 435}

School-aged children sleep 9 to 10 hours per day on average.⁴³⁶ Sleep problems in this age group include bedtime resistance, significant sleep onset delay, night-time fears and anxiety at bedtime.⁴³⁷ Nightmares, night terrors and sleep-walking are common in this age group. Children with a bedtime routine, including reading, tend to sleep longer than those without a regular routine. Children with a late bedtime (after 9 pm) and those with a television in the bedroom generally sleep less and have a longer sleep latency.⁴³⁸

Insufficient sleep is a particular issue for adolescents. Most adolescents sleep about 7 hours per night whereas the recommended duration is 9 to 10 hours. The typical sleep pattern in adolescence is a

delayed sleep phase through the week, which leads to ‘sleep debt’ and ‘catch-up’ sleep happening on weekends.⁴³⁶ Contributing factors include the natural shift to a later circadian rhythm, the influence of electronic media especially when used before bedtime, early school start times, caffeine use, stimulant drugs including those prescribed for treatment of attention deficit/hyperactivity disorder, use of other substances, anxiety and stress, and medical illnesses. Consequences of insufficient sleep in adolescents include depressed mood, obesity risk, poorer school and work performance and increased risk of driving while drowsy. Short sleep duration and sleep problems have also been shown to predict subsequent suicidal thoughts and attempts in teens.⁴³⁹ Lack of sleep may contribute to poorer health in adulthood.⁴⁴⁰

Obstructive Sleep Apnea

Obstructive sleep apnea (OSA) is a disorder of breathing during sleep. Common nighttime symptoms are snoring, mouth breathing, gasping during sleep and enuresis. Common daytime symptoms are daytime fatigue, mood instability, behavioural disorders, poor concentration, and inattention. Etiologies of OSA are multifactorial. Hypertrophy of the adenoids and tonsils is the most common cause of OSA in the preschool years and continues to be an important etiology for school-aged children and adolescents. However, obesity has also become an important risk factor for OSA, particularly in school-aged children and adolescents. Sequelae of OSA and sleep deprivation include cardio-metabolic consequences, neurocognitive deficits (impaired learning and memory) and behavioural problems. Guidance for screening and diagnosis is available.^{441 442 443}

Strategies for Good Sleep Habits – School-age children
Maintain a relaxed, predictable sleep routine - consistent and earlier bedtimes for all family members
Encourage relaxed settings at bedtime (dim lights, cool, calm environment)
Use the bed for sleep – not for activities, homework, watching TV
Identify and avoid negative sleep associations
Decrease time, attention given to night waking
Acknowledge nighttime fears and provide reassurance
Avoid daytime napping
Interact with children at bedtime
Avoid replacing parental attention with TV, computer or video games
No electronics or media in the bedroom (including adult bedrooms)
Limit screen time before bedtime (avoid 1-2 hrs before bedtime)
Reading is an essential part of the bedtime routine
No foods or drinks that contain caffeine (including chocolate and soft drinks) before bed, as it may interfere with sleep onset and quality
Avoid stimulant medications (e.g., cough medicines, decongestants)
Consult with a primary care practitioner about snoring or other sleep concerns
Websites
www.caringforkids.cps.ca/handouts/healthy_sleep_for_your_baby_and_child
https://www.ementalhealth.ca/World/Sleep-in-Children-and-Youth-Information-for-Caregivers/index.php?m=article&ID=21575
https://www.sleepfoundation.org/children-and-sleep
https://kidshealth.org/en/parents/sleep.html

Strategies for Good Sleep Habits – Adolescents

Have a consistent bedtime routine
Try to keep sleep and wake times the same for weekdays and weekends
Avoid daytime napping
Have a relaxed setting at bedtime (dim lights, cool, calm environment)
Use the bed for sleep – not for activities, homework, watching TV
Get exercise every day, but avoid high-intensity exercise within 3 hrs of bedtime
Fall asleep in your bedroom, not on the couch
Avoid caffeine after mid-afternoon and later
Don't smoke, and don't use alcohol, herbal products or over-the-counter sleep aids to help you sleep
Avoid media/electronics in the bedroom
Limit screen time before bedtime (avoid 1-2 hrs before bedtime)
Consult with a primary care practitioner about snoring or other sleep concerns
Websites https://caringforkids.cps.ca/handouts/healthy-living/teens_and_sleep https://www.ementalhealth.ca/World/Sleep-in-Children-and-Youth-Information-for-Caregivers/index.php?m=article&ID=21575 https://www.sleepfoundation.org/sleep-hygiene/healthy-sleep-tips https://kidshealth.org/en/teens/tips-sleep.html https://www.sleepfoundation.org/teens-and-sleep https://childmind.org/article/help-teenagers-get-sleep/

Stratégies de bonnes habitudes de sommeil - 6 à 12 ans
Maintenir une routine de sommeil détendue et constante ; une heure du coucher tôt pour toute la famille.
Encourager une ambiance décontractée (lumières tamisées, environnement frais et calme).
Identifier et éviter les associations négatives au sommeil.
Diminuer l'attention aux réveils nocturnes.
Reconnaître les peurs nocturnes et rassurer.
Éviter la sieste diurne.
Interagir avec les enfants à l'heure du coucher : <ul style="list-style-type: none"> • Éviter le remplacement de l'attention parentale par la télévision, l'ordinateur, ou les jeux vidéo ; • Pas d'appareils électroniques ou médias dans la chambre à coucher (incluant la chambre adulte) ; • Limiter le temps passé devant un écran (éviter de 1 à 2 heures avant l'heure du coucher).
La lecture est une partie essentielle de la routine du coucher.
Éviter les aliments et boissons qui contiennent de la caféine (y compris le chocolat et les colas) avant l'heure du coucher. La caféine peut interférer avec l'endormissement et la qualité du sommeil.
Évitez les médicaments stimulants (par exemple les médicaments contre la toux, les décongestionnants).
Parler au médecin de famille des problèmes du sommeil/ronflements.
Sites Internet : https://soinsdenosenfants.cps.ca/handouts/pregnancy-and-babies/healthy_sleep_for_your_baby_and_child https://www.esantementale.ca/World/Le-sommeil-chez-les-enfants-et-adolescents-Information-pour-les-aidants/index.php?m=article&ID=21575

Stratégies de bonnes habitudes de sommeil – Adolescents
Adopter une routine relaxante et constante avant de se coucher.
Maintenir l'heure du coucher et l'heure de réveil égal durant la semaine et le weekend.
Éviter la sieste diurne.
Adopter une ambiance décontractée à l'heure du coucher (lumières tamisées, environnement frais et calme).
Faire de l'exercice tous les jours, mais éviter l'exercice de haute intensité dans les 3 heures avant le coucher.
S'endormir toujours au lit, pas sur le canapé.

Éviter la caféine après le milieu de l'après-midi.
Ne pas fumer et éviter d'utiliser l'alcool, les plantes médicinales, ou les produits en vente libre comme les aides au sommeil.
Éviter les médias et les appareils électroniques dans la chambre.
Limiter le temps passé devant un écran (éviter 1 à 2 heures avant l'heure du coucher).
Parler au médecin de famille des problèmes du sommeil/ronflements.
Sites Internet https://www.esantementale.ca/World/Le-sommeil-chez-les-enfants-et-adolescents-Information-pour-les-aidants/index.php?m=article&ID=21575 https://soinsdenosenfants.cps.ca/handouts/healthy-living/teens_and_sleep

Injury Prevention and Safety

Clinicians should include safety topics in their discussions with patients and parents. A list of possible discussion topics is included in the supplementary pages of the Greig Health Record, with links to the Canadian Paediatric Society⁴⁴⁴ and Parachute Canada⁴⁴⁵ injury prevention pages. Selected sports with higher risk of injury are discussed in more detail below.

According to 2013 data from Statistics Canada, the leading causes of death in children ages 1 to 14 are accidents (24%), cancer (19%), congenital illness (10%) and suicide (5%). For youth, ages 15 to 24, the causes of death are accidents (40%), suicide (23%), cancer (8%) and assault (5%).

Youth participation in sport is known to have benefits for physical fitness, bone health, social development and self esteem, cognitive function and academic performance, and mental health when maturity status and training load are managed appropriately. Team sports offer opportunities for fine-tuning interpersonal skills and developing peer relationships.

However, there is also associated risk of injury, including concussion and musculoskeletal injury. These musculoskeletal injuries are associated with risk of later-life osteoarthritis. It is estimated in the US that almost 6% of individuals aged 5 to 24 years will experience a sport or recreational injury each year. Rapid growth and changes during puberty may predispose to injury. The elite athlete may be more at risk due to early specialization and unbalanced stressors on a developing body, as well as stress related to competition and time away from competing academic and social activities. Specialization in sport is a disadvantage to youth participants as those who don't make it to elite levels will have had limited themselves from more general activity and the enjoyment of multiple activities which have benefits that extend into adulthood. Without a focus on general fitness there is more risk of overuse injuries from poorly managed training load. Early specialization is also associated with athlete burnout. Multi-sport participation is recommended as well as considering the athlete's growth and maturity in training. Fortunately, there is movement in sport towards avoiding early specialization and a recognition of the harms of over-training.^{446 447}

Concussions

The consequences of concussions in children and youth can be severe and they take longer to recover than adults. Sports such as football, rugby, hockey and soccer are associated with the greatest risk for concussion. In Canada, sports most commonly reported as the concussion-related activity were, in boys 5 to 14 years -ice hockey, in older male youth – rugby, in females aged 10 to 19 – ringette. In females of

all ages - equestrian sport is the most commonly reported non-contact sport. Severity of traumatic brain injury as opposed to concussion frequency is also a concern in activities such as use of ATVs, equestrian sport and baseball.⁴⁴⁸

Protective equipment has been suggested to reduce sport related concussion. Helmets are effective in reducing head trauma by absorbing the force of impacts; however, they do not prevent the brain from “sloshing” around within the skull – the acceleration and deceleration mechanism of concussion injury. Thus, the ability of helmets to protect from sport-related concussion may not be as effective as desired. More research is required. Poorer helmet fit may be associated with increased risk of injury. Softshell headgear, such as that worn in soccer or rugby, is known to reduce the risk of cuts and bruises, but is of uncertain benefit for concussion prevention. Athletes may even increase risk of injury by engaging in more aggressive play due to a belief that the headgear would reduce concussion risk. Mouthguards reduce craniofacial injuries. A study in Canadian youth hockey players showed a reduction in concussion risk, with mouthguards of the boil-and-bite to mould variety performing better than custom-made mouthguards. Again, more study is required.⁴⁴⁹

Concussion resources are included in the Greig Health Record. While concussion assessment and treatment do not fall under the umbrella of primary prevention, this is a topic in paediatric primary care which does warrant some anticipatory guidance. There are many excellent resources online. Parachute Canada does not recommend pre-concussion baseline testing.⁴⁵⁰ The Concussion in Sport Group and Parachute Canada recommend the use of the Concussion Recognition Tool (CRT5) for immediate on-field assessment.⁴⁵¹ The Sport Concussion Assessment Tool for Medical Professionals (SCAT6) is recommended for more in-depth clinical assessment within 72 hours of injury.^{452 453} Return to School and Return to Sport handouts are useful tools from Parachute Canada.⁴⁴⁰ PedsConcussion is comprised of a panel of North American experts and have a clinical practice guideline, recommendations and handouts.⁴⁵⁴

Concussion Resources
Parachute Canada – information, handouts, Tools, Return to School and Sport Strategies - parachute.ca/en/injury-topic/concussion/
PedsConcussion – Guideline and detailed information, handouts https://pedsconcussion.com/#
Sport Concussion Assessment Tool https://cattonline.com/scat/ https://completeconcussions.com/wp-content/uploads/2023/06/SCAT6.pdf
Parent / coach handout www.caringforkids.cps.ca/handouts/sport_related_concussion
CRT5 – immediate assessment tool https://bjsm.bmj.com/content/bjsports/51/11/872.full.pdf

Commotion cérébrale
Parachute Canada – information générale, retour à l’école et au sport : https://parachute.ca/fr/sujet-blessure/commotion-cerebrale/
PedsConcussion – Directives et informations détaillées : https://pedsconcussion.com/fr/
Coffre à outils https://aqmse.org/outils-pratiques/coffre-a-outils-commotions-cerebrales/

Helmet Safety

There is good evidence to support the use of bicycle helmets with studies showing an overall decrease in the risk of head and brain injury by 65%-88%^{455 456 457}. Legislative interventions are also clearly effective in reducing head injuries, but only 8 of 13 Canadian provinces or territories have bicycle helmet legislation^{458 459 460 461}. According to Parachute, "Bike helmets can also be used for inline skating and scooter riding. Skateboarding has a different, special helmet. Using bicycle helmets reduces head injuries by more than 40 per cent, serious head injuries by 60 per cent and traumatic brain injury by 53 per cent. Helmet use reduces the total number of killed or seriously injured cyclists by 34 per cent."⁴⁶² For winter activities, specific guidance is also available from Parachute including those for skiing, hockey, tobogganing and snowmobiling. Note that there is a difference between helmets which must be replaced after a single impact and those certified as multi- impact helmets.⁴⁶³

Selected Injury Prevention Topics

Injury prevention
ATVs https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/all_terrain_vehicles https://parachute.ca/en/injury-topic/all-terrain-vehicles/
Helmets Helmets for biking, inline skating, scooters and skateboards https://parachute.ca/en/injury-topic/helmets/helmets-for-bicycles-inline-skating-scooter-riding-and-skateboarding/ Helmets for winter activities https://parachute.ca/en/injury-topic/helmets/helmets-for-winter-activities/ Which Helmet for which activity https://parachute.ca/wp-content/uploads/2019/06/Which-Helmet-For-Which-Activity.pdf
Hockey https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/bodychecking_in_ice_hockey_what_are_the_risks https://parachute.ca/en/injury-topic/winter-sports-and-recreation/ice-hockey/
Horseback riding https://parachute.ca/en/injury-topic/summer-sports/horseback-riding
Pedestrian safety https://parachute.ca/en/injury-topic/road-safety/
Playgrounds https://parachute.ca/en/injury-topic/playgrounds-and-play-spaces/built-playgrounds/ https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/playground-safety
Road safety https://parachute.ca/en/injury-topic/road-safety/
Skiing and Snowboarding https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/skiing_and_snowboarding_safety https://parachute.ca/en/injury-topic/winter-sports-and-recreation/skiing-and-snowboarding/ https://www.skicanada.org/safety/how-to-choose-a-helmet/
Soccer https://parachute.ca/en/injury-topic/summer-sports/soccer/
Snowmobiles https://parachute.ca/en/injury-topic/winter-sports-and-recreation/snowmobiling/ https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/snowmobiles
Summer sports and recreation https://parachute.ca/en/injury-topic/summer-sports/
Sun safety and tanning

https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/sun_safety https://caringforkids.cps.ca/handouts/preteens-and-teens/tanning https://www.canada.ca/en/health-canada/services/publications/healthy-living/sun-safety-infographic.html
Trampolines https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/home_trampoline https://parachute.ca/en/injury-topic/playgrounds-and-play-spaces/trampolines/
Tobogganing https://parachute.ca/en/injury-topic/winter-sports-and-recreation/sledding-and-tobogganing/
Water Safety and Drowning https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/water_safety https://parachute.ca/en/injury-topic/drowning/
Winter Safety – Frostbite, Thin Ice https://parachute.ca/en/injury-topic/winter-outdoor-safety/ https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/frostbite https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/winter_safety

Prévenir les blessures
Aires de jeu : https://parachute.ca/fr/sujet-blessure/terrains-et-aires-de-jeu/aires-de-jeu-construites/ https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/playground-safety
Casques Casques pour vélos, planches à roulettes, patins à roues alignées, trottinettes : https://parachute.ca/fr/sujet-blessure/casques/casques-pour-velos-patins-a-roues-alignees-trottinettes-et-planches-a-roulettes/ Casques pour les sports d'hiver : https://parachute.ca/fr/sujet-blessure/casques/casques-pour-les-sports-dhiver/
Équitation : https://parachute.ca/fr/sujet-blessure/sports-et-loisirs-dete/equitation/
L'exposition au soleil et le bronzage https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/sun_safety https://soinsdenosenfants.cps.ca/handouts/preteens-and-teens/tanning https://www.canada.ca/fr/sante-canada/services/publications/vie-saine/infographie-securite-soleil.html
Hockey : https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/bodychecking_in_ice_hockey_what_are_the_risks https://parachute.ca/fr/sujet-blessure/sports-et-loisirs-dhiver/hockey-sur-glace/
Luge et traîneau : https://parachute.ca/fr/sujet-blessure/sports-et-loisirs-dhiver/luge-et-traineau/
Motoneige : https://parachute.ca/fr/sujet-blessure/sports-et-loisirs-dhiver/motoneige/ https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/snowmobiles
Sécurité aquatique et noyade : https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/water_safety https://parachute.ca/fr/sujet-blessure/noyade/
Sécurité en hiver – les engelures et la glace : https://parachute.ca/fr/sujet-blessure/securite-en-hiver-a-lexterieur/

https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/frostbite
https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/winter_safety
Sécurité des piétons : https://parachute.ca/fr/sujet-blessure/securite-des-pietons
Sécurité routière : https://parachute.ca/fr/sujet-blessure/securite-routiere/
Ski et planche à neige : https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/skiing_and_snowboarding_safety https://parachute.ca/fr/sujet-blessure/sports-et-loisirs-dhiver/ski-et-planche-a-neige/ https://www.skicanada.org/fr/securite/comment-choisir-un-casque/
Soccer : https://parachute.ca/fr/sujet-blessure/sports-et-loisirs-dete/soccer
Sports et loisirs d'été : https://parachute.ca/fr/sujet-blessure/sports-et-loisirs-dete/
Trampolines : https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/home_trampoline https://parachute.ca/fr/sujet-blessure/terrains-et-aires-de-jeu/trampolines/
VTT : https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/all_terrain_vehicles https://parachute.ca/fr/sujet-blessure/vehicules-tout-terrain/

All-terrain vehicles

In Canada, children and youth account for almost 34 % of ATV related deaths. There is strong evidence to support that operators under 16 years of age are at significant risk of head and brain injuries as well as pelvic and spinal cord injuries. As with snowmobiles, operation of all-terrain vehicles (ATVs) should be restricted to individuals 16 years and older. Carrying passengers, using three wheeled vehicles and driving without a helmet are not recommended. Again, a training course is recommended.^{464 465}

Firearms

From 2008 to 2012, there were 635 deaths from firearms in children and youth under 25 years. Canada ranks 5th among OECD countries for firearm deaths. An estimated 17% of households in Canada own a gun, based on a 2002 survey. The presence of a gun in the home increases risks of death from unintentional injury and adolescent suicide completion. Firearms are the most common cause of death in murder-suicides involving children and youth victims. Non-powder firearms such as air-guns and BB guns are also dangerous and can be associated with significant internal injuries; they should not be used without adult supervision. Health care providers should counsel families to store firearms unloaded, with a trigger-lock or in a locked container and stored separately from ammunition; evidence shows that physician guidance can be effective.⁴⁶⁶ Although immigrant children and youth are at lower risk than non-immigrants for unintentional firearm injury; refugee children and youth, especially those from Central America and Africa are at higher risk for assault-related firearm injury.⁴⁶⁷ Education of children about gun safety is not recommended as it may have the unintended effect of decreasing parental vigilance.⁴⁶⁸

Hockey

Canadian data suggest that hockey injuries account for 8 to 11 percent of all adolescent sport-related injuries, with body-checking accounting for the majority of these injuries. The fatality rate is double that of American football, while traumatic brain and catastrophic spinal cord injuries are almost four times higher. Evidence indicates that having experience with bodychecking does not protect against injury.⁴⁶⁹ Clinicians should advocate to eliminate bodychecking from recreational hockey and to delay bodychecking in leagues for male elite players. Girls' and women's leagues do not allow body-checking and players should continue to avoid body-checking.⁴⁷⁰

Horseback Riding

Injuries to child and youth riders occur due to falls, kicks, tramples and bites. Injuries to the head, neck and face area are most common.^{471 472 473} Even non-riders, stable staff and bystanders are at risk. Use of helmets is recommended, riding vests may be helpful, and caution in all situations with horses is recommended.^{474 475} Parachute has recommendations and tips for riders and parents.

Pedestrians

In 2020, 21 Canadian children under 15 years old were killed in pedestrian and vehicle collisions. Children are twice as likely to be hit by a vehicle where speed limits exceed 50 km/h. Effective measures to reduce pedestrian injury include speed reduction through traffic calming modifications (speed bumps, road narrowing, adding pedestrian islands, tree-lined roads) as well as speed cameras.⁴⁷⁶ Beginning teaching children about road safety should start early.⁴⁷⁷

Skateboards and in-line skates

Use of skateboards and in-line skates is associated with an increased risk of falls which are associated with elbow, forearm and wrist injuries. In addition to helmets, children should wear protective gear including wrist pads, elbow guards and knee pads.⁴⁷⁸

Skiing and Snowboarding

The risk of injury for skiers and snowboarders is approximately 2 to 4 per 1000 participant days. The highest risk for injury is in children and adolescents 7 to 17 years of age, with the highest risk in snowboarders. Risk of injury is higher in beginners and in individuals using rented or borrowed equipment or on skis or snowboards with poorly adjusted bindings. Evidence supports the use of helmets to prevent injury while skiing or snowboarding. Data also suggest that helmets are not associated with an increased risk of neck injury. There is evidence to support using wrist guards while snowboarding.⁴⁷⁹

Snowmobiles

The CPS and Parachute recommend restricting driving of snowmobiles to those 16 years and older. In addition, recommendations are made for either graduated licences or that all snowmobile drivers receive instruction. Riding on a snowmobile should be restricted to those 6 years and older. Snowmobile helmets should be worn by drivers and passengers.^{480 481}

Soccer

There is conflicting and limited evidence for the harmful effects of headers on the developing adolescent brain. Additional studies, especially longitudinal assessments, are required.⁴⁸² Parachute recommends waiting until at least age 10 before introducing heading, learning proper technique and ensuring balls are not heavy or water-logged. Balls should be plastic coated and replaced once no longer water resistant; smaller balls for youth soccer should be used. Other safety recommendations are also included in their guidance.⁴⁸³

Sun Safety and Tanning

“The USPSTF recommends counseling young adults, adolescents, children, and parents of young children about minimizing exposure to UV radiation for persons aged 6 months to 24 years with fair skin types to reduce their risk of skin cancer. (B recommendation)”⁴⁸⁴ Systematic review does not confirm protective effects of sunscreen in both melanoma and non-melanoma skin cancers.⁴⁸⁵ The CPS has guidance for parents and teens on sun safety and tanning.^{486 487} Health Canada has a sun safety infographic at <https://www.canada.ca/en/health-canada/services/publications/healthy-living/sun-safety-infographic.html>.⁴⁸⁸

Trampoline Safety

Trampolines are a high risk source of injury. Data from the CHIRPP (Canadian Hospitals Injury Reporting and Prevention Program) database show that the majority of trampoline injuries occur in children 5 to 14 years of age. Upper limb fractures are the most common injury; however, severe injury can result from cervical spine trauma. Many trampoline injuries occur when there are multiple users on the jumping surface and there is inadequate or absent supervision. The CPS, AAP and Parachute recommend the elimination of all trampolines in the home environment and no participation for children less than 6 years of age.⁴⁸⁹

Vehicle Safety

Booster Seats and Seatbelts

Younger children are safest restrained in a car seat with a 5-point harness.⁴⁹⁰ There is good evidence for use of booster seats for children between the ages of 5 and 7 and for the use of seatbelts for children aged 8 and older.^{491 492 493} There is considerable variation in booster seat legislation in Canada. Some provinces or territories have laws requiring booster seat use until children are 8, 9 or even 10 years of age, while others make no specific recommendation. Most recommend that children should be at least 18 kg or 40 lbs.⁴⁹⁴ It should be noted that this specifies the minimum weight for transitioning out of a car seat. Transport Canada recommends transitioning only when the car seat has been outgrown and regulations permit.⁴⁹⁵ Most children can safely transition to a booster sometime between ages 4 and 7 years. Physicians should counsel parents on when it is safe to graduate children to seatbelt use and, especially, to avoid premature graduation for smaller children.^{496 497} Guidelines and handouts clarifying graduation by weight, height and age are available from Transport Canada⁴⁹⁸, Parachute Canada⁴⁹⁹ and the Canadian Paediatric Society.^{500 501}

Booster Seat and Seatbelt Recommendations
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https://parachute.ca/en/injury-topic/car-seats/choosing-the-right-car-seat/ https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/car_seat_safety	
Transition	Détails
Car seat to Booster	Age - Usual age - 4 to 7 years Weight: ≥ 18 kg (40 lbs)
	Transition when child has outgrown the car seat AND child's weight is at least 18 kg (40 lbs) Avoid early graduation from a car seat to a booster seat Check the booster seat fit - https://tc.canada.ca/en/road-transportation/child-car-seat-safety/installing-child-car-seat-booster-seat/stage-3-booster-seats
Booster to Seatbelt	Age - Usual age - 9 to 12 years Height: ≥ 145 cm (57 inches)
	Transition when child has outgrown the booster seat. Avoid early graduation out of the booster seat. Check local laws. Ensure that the seatbelt is centred over the shoulder and fits snugly on their lap - https://tc.canada.ca/en/road-transportation/child-car-seat-safety/installing-child-car-seat-booster-seat/stage-4-seat-belts
Rear seat to Front seat	Usual age ≥ 13 years Check local laws. Most provinces and territories allow children 13 years and older to sit in the front seat.

CPS, Parachute, Transport Canada

Sièges d'appoint et ceintures de sécurité	
https://parachute.ca/fr/sujet-blessure/sieges-dauto/choisir-le-bon-siege-dauto/ https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/car_seat_safety	
Transition	Détails
Transition au siège d'appoint	Âge habituel : 4 à 7 ans Poids : ≥ 18 kg (40 lb)
	Transition lorsque l'enfant est devenu trop grand pour le siège d'auto pour enfants ET que son poids est d'au moins 18 kg (40 lb) Évitez de passer prématurément à un siège d'appoint. Vérifier l'ajustement. https://tc.canada.ca/fr/transport-routier/securite-sieges-auto-enfants/installation-siege-auto-enfants-siege-appoint/phase-3-sieges-appoint
Transition à une ceinture de sécurité	Âge habituel : 9 à 12 ans Hauteur : ≥ 145 cm (57 pouces)
	Transition lorsque l'enfant est devenu trop grand pour le siège d'appoint. Évitez de sortir prématurément du siège d'appoint. Vérifiez les lois locales. Assurez-vous que la ceinture de sécurité est centrée sur son épaule et bien ajustée en bas sur ses hanches. https://tc.canada.ca/fr/transport-routier/securite-sieges-auto-enfants/installation-siege-auto-enfants-siege-appoint/phase-4-ceintures-securite
Commencer à utiliser le siège avant	Âge habituel : ≥ 13 ans Vérifiez les limites dans la province ou le territoire où vous circulez. La plupart des provinces et des territoires autorisent les enfants âgés de 13 ans et plus à monter sur le siège avant.

CPS, Parachute, Transport Canada

Booster Seat Laws (a summary)		
	Earliest Graduation to Booster Seat	Earliest graduation to Seatbelt alone

BC	≥18 kg (40 lbs)	≥145 cm tall (57 inches) OR ≥ 9 years old
AB	≥18 kg (40 lbs) OR ≥ 6 years old	
SK	≥18 kg (40 lbs)	≥145 cm tall (57 inches) AND ≥36 kg (80 lbs) OR ≥ 7 years old
MB	Appropriate restraining device	≥145 cm tall (57 inches) OR ≥36 kg (80 lbs) OR ≥ 9 years old
ON	≥18 kg (40 lbs)	≥145 cm tall (57 inches) OR ≥36 kg (80 lbs) OR ≥ 8 years old
QC	Appropriate car seat or booster seat	≥145 cm tall (57 inches) OR ≥ 9 years old
NB	Appropriate car seat or booster seat	≥145 cm tall (57 inches) OR ≥36 kg (80 lbs) OR ≥ 9 years old
NS	≥18 kg (40 lbs)	≥145 cm tall (57 inches) OR ≥ 9 years old
PE	≥18 kg (40 lbs)	≥145 cm tall (57 inches) OR ≥ 10 years old OR Exceed manufacturer's weight limit
NL	≥18 kg (40 lbs)	≥145 cm tall (57 inches) AND ≥37 kg (81.5 lbs) OR ≥ 9 years old
YT	≥22 kg (48lbs)	≥145 cm tall (57 inches) OR ≥45 kg (100 lbs)
NT	≥18 kg (40 lbs)	
NU	≥18 kg (40 lbs)	
		Note that this summary is for comparison only. Refer to local legislation for details and current status

Adapted from parachute.ca

Lois sur les sièges d'appoint (un résumé)		
	Transition au siège d'appoint	Transition à une ceinture de sécurité
BC	≥18 kg (40 lb)	≥145 cm de hauteur (57 pouces) OU ≥ 9 ans
AB	≥18 kg (40 lb) OR ≥ 6 ans	
SK	≥18 kg (40 lb)	≥145 cm de hauteur (57 pouces) ET ≥36 kg (80 lb) OU ≥ 7 ans
MB	Un siège auto ou un siège d'appoint approprié	≥145 cm de hauteur (57 pouces) OU ≥36 kg (80 lb) OU ≥ 9 ans

ON	≥18 kg (40 lb)	≥145 cm de hauteur (57 pouces) OU ≥36 kg (80 lb) OU ≥ 8 ans
QC	Un siège auto ou un siège d'appoint approprié	≥145 cm de hauteur (57 pouces) OU ≥ 9 ans
NB	Un siège auto ou un siège d'appoint approprié	≥145 cm de hauteur (57 pouces) OU ≥36 kg (80 lb) OU ≥ 9 ans
NS	≥18 kg (40 lb)	≥145 cm de hauteur (57 pouces) OU ≥ 9 ans
PE	≥18 kg (40 lb)	≥145 cm de hauteur (57 pouces) OU ≥ 10 ans OU Dépasse la limite de poids du fabricant.
NL	≥18 kg (40 lb)	≥145 cm de hauteur (57 pouces) AND ≥37 kg (81.5 lbs) OU ≥ 9 ans
YT	≥22 kg (48 lbs)	≥145 cm de hauteur (57 pouces) OU ≥45 kg (100 lb)
NT	≥18 kg (40 lb)	
NU	≥18 kg (40 lb)	
		Notez : ce résumé est seulement pour comparaison. Il faut voir la législation locale pour plus de détails et l'état actuel.

Adapté de parachute.ca

Driving safety should be discussed, particularly related to being in any motorized vehicle (including watercraft and snowmobiles) as a driver or passenger while under the influence of alcohol or drugs⁵⁰²
⁵⁰³ ⁵⁰⁴. There is fair evidence for the negative effects of driving under the influence of marijuana⁵⁰⁵.

According to the Canadian Centre on Substance Use and Addiction's research summary on impaired driving, Canadian youth, ages 15 to 24 years were more likely than older Canadians to report driving after using cannabis (5.0% vs 2.3%) but had similar figures for driving after alcohol consumptions (9.6% vs 8.0%). However, in a 2019 report for an ongoing survey of Ontario high school students, the prevalence of reported driving after either cannabis or alcohol continued the decline visible since 2001. 2001 figures showed 19.9% driving after cannabis and 14.2% driving after alcohol; by 2019 figures were 6.8 and 4.0% respectively.⁵⁰⁶ ⁵⁰⁷

In contrast to driver education training programs, graduated licences appear to be effective in crash prevention. (242)⁵⁰⁸ One Cochrane review updates and confirms evidence for the effectiveness of graduated licensing in reducing young driver motor vehicle crashes.⁵⁰⁹

Water Safety

In Canada, the majority of drowning deaths occur during recreational activities and children 5 to 14 years have the highest rates of drowning during these recreational activities.⁵¹⁰ Basic swimming skills and water safety instruction have been shown to reduce the risk of drowning.⁵¹¹ Drowning prevention counselling includes recommending adequate supervision around water, swimming lessons for safety instruction and pool enclosures.⁵¹² Low levels of life-jacket use are found in studies of drowning victims.

Alcohol seems to reduce life-jacket wear, while at the same time increasing the risk of a boating accident.⁵¹³

Workplace Safety

For adolescent workers, occupational injury and illness are largely preventable, and physicians can play a crucial role in prevention by alerting teens to common workplace dangers.⁵¹⁴ Teens should be counselled that they have rights to know about workplace hazards, to participate in health and safety prevention, and to refuse dangerous work.⁵¹⁵ However, younger children may also be exposed to workplace hazards, especially in family businesses such as farm or fishing operations. It has also been shown that a workweek of 20 hours or more is associated with emotional distress in adolescents.⁵¹⁶

Environmental Hazards

Environmental pollutants and other hazards can be linked to diverse adverse effects in children.

Second-Hand Smoke and Vapes

Smoking rates are declining but exposure to second-hand smoke continues to be a hazard.^{517 518} Second-hand smoke in children is associated with “asthma, altered respiratory function, infection, cardiovascular effects, behavior problems, sleep difficulties, increased cancer risk, and a higher likelihood of smoking initiation.”^{519 520} There is good evidence that brief counselling encourages smokers to attempt to quit.⁵²¹ Canadian guidelines on smoking cessation strategies are available.⁵²² Research on the effects of second-hand marijuana smoke is ongoing.⁵²³ Second-hand cannabis smoke contains similar toxic and carcinogenic chemicals to tobacco smoke; some of those chemicals are in higher amounts in cannabis smoke. THC can be absorbed by children through second-hand smoke.⁵²⁴ Vaped aerosols also pose a danger. More research is required to understand the potential effects on children and adolescents. Second-hand vaped nicotine is associated with increased risk of bronchitic symptoms and shortness of breath in young adults.⁵²⁵ As with direct exposure, second-hand e-cigarette exposure is associated with mental health problems although a cause and effect relationship is not established.⁵²⁶ Cannabis may also be vaped causing particles to be suspended in the air.⁵²⁷

Poisoning

Children are more susceptible to the effects of cannabis. Cannabis has detrimental effects on children’s developing brains and increases the risk for developing psychosis.⁵²⁸ Pediatric poisonings, especially with cannabis edibles, are on the rise. Counselling for safe storage is important.^{529 530} This advice also applies to vitamins, iron supplements, pesticides, prescription medications and other illicit substances.⁵³¹

A policy statement from the AAP summarizes evidence and concerns regarding pesticide exposure in children. It reviews classes of pesticides, sources of exposure, signs and symptoms of acute pesticide toxicity and the evidence for chronic effects of exposure, such as acute lymphocytic leukemia, brain tumors, lowered IQ, ADHD and autism. Strategies for preventing exposure and regulatory recommendations are also discussed.⁵³²

Air Quality

Indoor air quality can be affected by smoking, dampness, heating, hobbies and household cleaning and laundry. Cooking indoors can affect air quality through generation of airborne particles and moulds, as well as nitrogen dioxide and carbon monoxide from the use of gas stoves. Children are susceptible and can present with irritated airways and respiratory symptoms. Using an effective exhaust fan can help. Outdoors, ground level pollutants can be deleterious to health. There may be developmental consequences to exposures.⁵³³ Increasingly wildfire smoke is affecting air quality.⁵³⁴ Health Canada has guidance on how to protect your health.⁵³⁵

Radon

Approximately 7% of Canadian homes have high levels of radon. Radon levels vary significantly across Canada.⁵³⁶ Radon enters a home through gaps in the foundation where it contacts the soil. A guide for radon reduction is available from the Government of Canada.⁵³⁷

Smoke Detectors and Carbon monoxide detectors

Smoke detectors save lives. Families should be counselled to ensure that smoke alarms are properly installed and checked regularly. These alarms should be replaced every 10 years. Both smoke detectors and carbon monoxide detectors are required in most provinces.^{538 539 540 541} Further study is required to elucidate causes of mortality from fires.⁵⁴²

Hearing protection

Voluntary recreational noise exposure is a modifiable risk factor for hearing loss in young people. The highest exposure occurs through unsafe listening practices when using personal listening devices and attending loud entertainment venues.⁵⁴³ The periodic health visit is an ideal opportunity to talk with patients about protecting their hearing. Permanent hearing loss is caused by loudness, duration and frequency of exposure to noise. Rock concerts and personal listening devices can reach an intensity of 110 to 120 dB.^{544 545} By comparison, the upper limit recommended for occupational noise exposure is 80-85 dB for 40 hours a week.⁵⁴⁶ Damage from unsafe listening compounds over the life course; noise exposure earlier in life may make individuals more vulnerable to age-related hearing loss. Clinicians can screen for early physiological damage to the auditory system by inquiring re. transient or permanent tinnitus and/or changes to hearing. Using loose-fitting earbuds that do not insert tightly into the ear canal are helpful as they do not emit acoustic energy directly into the ear canal, however there is often a tendency to increase the volume to drown out environmental noise. Earphones that block outside noise remove this concern, however the intensity of the signal received may be greater.⁵⁴⁷

Needle stick injuries

The risk of finding discarded needles, syringes and condoms in local environments such as park and schoolyard should be raised with young families. The CPS has guidance for parents on how to educate children about and how to manage needle stick injuries as well as a guideline for clinicians on management.^{548 549}

Other Safety Topics

Traffic safety and safe road crossing should be addressed with families of younger children. Where appropriate, farm, rail and rural safety should also be discussed.

Preparing children for situations in which they need to show initiative can be part of counselling for young families. Young children can be asked if they know e their own home phone number or address, or if they know what to do if they are lost, in danger, or home alone. Such anticipatory guidance is more important and helpful than the stock “never talk to strangers” rule. ⁵⁵⁰

Prevention of Disability from Environmental Hazards

Environmental exposures to lead, second-hand smoke, environmental pollution and industrial pollutants are known to cause disability in children. Evidence suggests that many disabilities of childhood have their roots in exposures to toxins, the stressors of poverty, and marketing practices that encourage unhealthy choices. Interventions to reduce or eliminate these exposures are described. ^{551 552}

Environmental Hazards	
General Resources	American Academy of Pediatrics: https://publications.aap.org/aapbooks/book/524/Pediatric-Environmental-Health Canadian Partnership for Children’s Health and Environment / Physician & Patient Resources: https://healthyenvironmentforkids.ca/ CDC National Center for Environment Health : https://www.cdc.gov/nceh/
Air Quality	https://www.canada.ca/en/health-canada/services/air-quality.html
Climate and Heat	https://www.canada.ca/en/health-canada/services/publications/healthy-living/infographic-staying-healthy-heat.html
Firearms	https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/gun-safety-information-for-families
Needle Stick	https://caringforkids.cps.ca/handouts/safety-and-injury-prevention/needle_stick_injuries
Pedestrian	https://parachute.ca/en/injury-topic/pedestrian-safety/
Poison Centres	Call 1-844-POISON-X (1-844-764-7669) In Quebec 1-800-454-1212 In Nunavut call your local health centre
Poisonings	Cannabis https://parachute.ca/en/injury-topic/poisoning/cannabis/ Radon Gas https://parachute.ca/en/injury-topic/poisoning/approver-draft-copy-1249/
Smoke and Carbon Monoxide Detectors	Smoke Detectors https://parachute.ca/en/injury-topic/burns-and-scalds/smoke-alarms/ Carbon Monoxide https://parachute.ca/en/injury-topic/poisoning/carbonmonoxide/ and https://www.oafc.on.ca/public-safety/carbon-monoxide-alarms
Radon reduction	https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/radon/resources.html
Rail Safety	https://parachute.ca/en/injury-topic/rail-safety/
Second Hand Smoke	https://www.thoracic.org/patients/patient-resources/resources/second-hand-smoke.pdf
Workplace safety	https://www.canada.ca/en/employment-social-development/services/health-safety/workplace-safety/youth.html

Dangers environnementaux

Ressources générales	https://healthyenvironmentforkids.ca/fr/
Climat et chaleur	https://www.canada.ca/fr/sante-canada/services/publications/vie-saine/infographie-demeurez-sante-chaleur.html
Qualité de l'air	https://www.canada.ca/fr/sante-canada/services/qualite-air.html
Armes à feu	https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/gun-safety-information-for-families
Piqûre d'aiguille	https://soinsdenosenfants.cps.ca/handouts/safety-and-injury-prevention/needle_stick_injuries
Sécurité ferroviaire	https://parachute.ca/fr/sujet-blessure/securite-ferroviaire/
Sécurité des piétons	https://parachute.ca/fr/sujet-blessure/securite-des-pietons/
Poisons – les Centres antipoison	1-844-POISON-X (1-844-764-7669). Au Québec : 1-800-454-1212 Au Nunavut : communiquez avec le centre de santé local.
Poisons	Cannabis : https://parachute.ca/fr/sujet-blessure/empoisonnement/cannabis/ Monoxyde de carbone : https://parachute.ca/fr/sujet-blessure/empoisonnement/monoxyde-de-carbone/ Gas radon: https://parachute.ca/fr/sujet-blessure/empoisonnement/gaz-radon/
Réduction du radon	https://www.canada.ca/fr/sante-canada/services/securite-et-risque-pour-sante/radiation/ressources.html
Détecteurs de fumée et de monoxyde de carbone	Fumée : https://parachute.ca/fr/sujet-blessure/brulures-et-echaudures/detecteurs-de-fumee/ Monoxyde de carbone : https://parachute.ca/fr/sujet-blessure/empoisonnement/monoxyde-de-carbone/
Jeunes travailleurs	https://www.canada.ca/fr/emploi-developpement-social/services/sante-securite/securite-travail/jeunes.html

Dental Care and Fluoride

Professional dental care, including fluoride application and the selective use of sealants, has been clearly shown to reduce dental caries. Regular brushing with a fluoride-containing toothpaste and flossing are recommended for hygiene and aesthetics, reduction of gingival disease and cavity prevention.^{553 554}

Fluoride availability is reduced with the use of unfluoridated bottled water, use of some reverse osmosis devices or lack of brushing with fluoride containing toothpaste.^{555 556} Fluoride supplements are usually not necessary for most Canadians as sufficient fluoride can be obtained through brushing with a fluoride containing toothpaste as well as the water supply.⁵⁵⁷ However, not all populations have fluoridation of community water. Public health offices have information on the fluoride content of water in the local area. Studies show that fluoridation cessation is associated with a deterioration of dental health of schoolchildren. Newly developed equipment is making fluoridation more cost effective for small communities. Physicians can advocate for community water fluoridation as an effective preventive intervention.^{558 559} For those with insufficient fluoride in the water, the American Academy of Pediatric Dentistry recommends oral fluoride supplements up to age 16 years.⁵⁶⁰ The Canadian Dental Association has guidance on dental care. The USPSTF concludes that there is insufficient evidence to determine if physicians should screen children and adolescents ages 5 to 17 years for caries and other aspects of dental health.⁵⁶¹ It may be that dental health screening should be performed by dentists.

Dental Care
Brush for 2 to 3 minutes, twice daily
Floss at least once daily
Brush your tongue
Children under 7 years should be assisted with dental cleaning
https://www.cda-adc.ca/en/oral_health/index.asp

Soins dentaires
Brosser pendant 2 à 3 minutes, deux fois par jour.
Utiliser la soie dentaire au moins une fois par jour.
Brosser la langue.
Les enfants de moins de 7 ans doivent être aidés pour le nettoyage dentaire.
https://www.cda-adc.ca/fr/oral_health/index.asp

Specific Concerns

A section of the Greig Health Report is reserved for notation of specific concerns – such as an illness or personal issue raised during the visit or by examination – along with directions for where to find details elsewhere in the patient’s chart.

Physical Examination

Consensus opinion supports the inclusion of height, weight, blood pressure and visual acuity screening as part of the physical examination. Headings for other examinations have been included as reasonable for the purpose of case-finding.

Height, Weight, and BMI

Height, weight and body mass index measurements are recommended by the Dietitians of Canada, the Canadian Paediatric Society, the College of Family Physicians of Canada and the Community Health Nurses of Canada.⁵⁶² Body mass, while not directly measuring body fat, is useful as a screening tool for obesity.^{563 564} Atypical growth patterns should be noted by serial growth monitoring.⁵⁶⁵

The **WHO growth charts**, adapted for Canada, are recommended for monitoring children and adolescents. The Dietitians of Canada website www.whogrowthcharts.ca links to the growth charts, BMI calculators and other important resources.

Monitoring weight-for-age alone after 10 years of age is not recommended. Instead, BMI should be used to assess weight relative to height. The percentile curves have been extended as dashed lines beyond age 10 for practitioners who wish to continue monitoring weight-for-age past age 10. A BMI between the 85th to 97th percentiles is defined as overweight and above the 97th percentile as obese.⁵⁶⁶

Evaluation of both the current weight for height and the growth pattern and trajectory help to identify atypical growth.⁵⁶⁷ See the section on Obesity.

Growth charts and BMI Calculation
WHO charts for Canada www.whogrowthcharts.ca
BMI = mass in kg/(height in metres) ²
BMI = [weight in pounds/ (height in inches) ²]*703
Obesity = BMI>97th %ile, overweight=85th to 97th %ile

Les courbes de croissance et calcul d'IMC

Les courbes de croissance canadienne de l'OMS www.whogrowthcharts.ca

IMC = poids en kg/taille² (en m)

IMC = [poids en livres (hauteur en pouces)²]*703

Obésité = BMI >97^e centile, surpoids = 85^e au 97^e centile.

Blood pressure

The USPSTF advises that there is insufficient evidence to assess the benefits versus harms of screening in this age group. There is also inadequate evidence for the effectiveness of interventions, either lifestyle or pharmacologic. Secondary hypertension is relatively rare and is typically first identified in children under six years as opposed to older children and adolescents; it also presents with other clinical manifestations.^{568 569}

Conversely blood pressure screening is recommended by the American Academy of Pediatrics but only at preventive care visits and this too is a consensus recommendation based on moderate quality evidence. Children who are obese, diabetic, have renal disease, have a history of aortic arch obstruction or coarctation or who are taking medications known to increase blood pressure are recommended to have blood pressure measured at every health encounter. They suggest that children 6 years and older who are overweight or obese or have a family history of hypertension, do not require an extensive evaluation for secondary causes of hypertension, provided there are no findings on history or physical suggestive of secondary causes. A simplified blood pressure table is included in the GHR.⁵⁷⁰

Blood Pressure Screening Recommendations

AAP: Screen BP at each preventive care visit (age ≥ 3) - consensus recommendation and

Screen at each health visit for children and adolescents who have: obesity, renal disease, diabetes, aortic arch obstruction or coarctation, medications which cause elevation in blood pressure

USPSTF: Insufficient evidence to recommend screening healthy populations

Evaluate further for elevated blood pressure

See Reference for Normal Range of BP by age and gender

Elevated BP is defined as >95% of population norms

For example (approx.)

over 105/66 in 6-year-olds

over 107/70 in 9-year-olds

over 113/75 in 12-year-olds

over 120/80 in ≥ 13 years of age

Source : <https://publications.aap.org/pediatrics/article/140/3/e20171904/38358/>

Blood Pressure Screening Recommendations (USPSTF)

Insufficient evidence to make a recommendation for screening

Insufficient evidence for effectiveness of interventions – either lifestyle or pharmacologic

Secondary hypertension is rare, usually identified in children under 6, and presents with other clinical manifestations

Source : <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/blood-pressure-in-children-and-adolescents-hypertension-screening>

Recommandations de dépistage de la tension artérielle

AAP : Dépister la TA à chaque visite de soins préventifs (âge > 3) – et les enfants et adolescents avec risques (obésité ; maladie rénale ; diabète ; obstruction ou coarctation de l'aorte ; médicaments qui provoquent une élévation de la pression artérielle

USPSTF : Preuves insuffisantes pour formuler une recommandation de dépistage.

Évaluez davantage la pression artérielle élevée
Voir la référence pour la plage normale de pression artérielle selon l'âge et le sexe. Une TA élevée est définie comme > 95 % des normes de la population. Par exemple (environ) : <ul style="list-style-type: none"> • plus de 105/66 chez les 6 ans ; • plus de 107/70 chez les 9 ans ; • plus de 113/75 chez les 12 ans ; • plus de 120/80 chez \geq 13 ans. https://publications.aap.org/pediatrics/article/140/3/e20171904/38358/

Recommandations en matière de dépistage de la tension artérielle (AAP)
Dépister la TA à chaque visite de soins préventifs (âge > 3) - recommandation consensuelle
Dépistage à chaque visite de santé pour les enfants et adolescents qui ont : <ul style="list-style-type: none"> • obésité ; • maladie rénale ; • diabète ; • obstruction ou coarctation de l'aorte ; • médicaments qui provoquent une élévation de la pression artérielle.
Évaluez davantage la pression artérielle élevée. Voir la référence pour la plage normale de pression artérielle selon l'âge et le sexe. Une TA élevée est définie comme > 95 % des normes de la population. Par exemple (environ) : <ul style="list-style-type: none"> • plus de 105/66 chez les 6 ans ; • plus de 107/70 chez les 9 ans ; • plus de 113/75 chez les 12 ans ; • plus de 120/80 chez \geq 13 ans.

Source : <https://publications.aap.org/pediatrics/article/140/3/e20171904/38358/>

Recommandations en matière de dépistage de la tension artérielle (USPSTF)
Preuves insuffisantes pour formuler une recommandation de dépistage.
Preuves insuffisantes de l'efficacité des interventions – que ce soit le mode de vie ou les traitements pharmacologiques.
L'hypertension secondaire est rare, généralement identifiée chez les enfants de moins de 6 ans et se manifeste par d'autres manifestations cliniques.

Source : <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/blood-pressure-in-children-and-adolescents-hypertension-screening>

Visual Acuity Screening

Visual acuity in this age group should be assessed every two years in school-aged children and whenever concerns occur. The American Academy of Pediatrics recommends screening at ages 6,8,10,12 and 15 years. ^{571 572}

Scoliosis screening

An updated recommendation from the U.S. Preventive Services Task Force now grades screening of asymptomatic individuals aged 10 to 18 years with an “I” grading; meaning that there is insufficient evidence to make a recommendation. This is an update from the 2004 recommendation not to screen. The screening tests do work, including the forward bend test, but there is insufficient evidence to show that early detection and treatment have health benefits into adulthood.

Although adequate evidence indicated that treatment with bracing may decrease curvature progression in adolescents with mild or moderate curvature severity -- an intermediate outcome -- evidence regarding the association between reduced spinal curvature in adolescence and long-term health outcomes in adulthood was lacking. There is fair evidence that treating adolescent idiopathic scoliosis leads to decreased pain and disability in a small proportion of patients. However, this must be balanced against potential treatment harms.^{573 574} Note that this recommendation refers to population screening and does not apply to symptomatic individuals.

Breast Self-Examination Not Recommended

Teaching breast self-examination or routine clinical breast examination to adults 40 to 70 years of age is not recommended. There is fair evidence of no benefit and good evidence of harm in the form of increased physician visits and benign biopsy results. For women under 40 years of age, there is little evidence on which to base a recommendation; however, the very low incidence of breast cancer in this age group makes the net risk of harm more likely.^{575 576}

Testicular Self-Examination

In 2004, and reaffirmed in 2011, the USPSTF recommended against counselling for testicular self-examination or routine clinical examination in individuals of average risk, in light of the low incidence of testicular cancer and favourable outcomes in the absence of screening.^{577 578} Time spent counselling for self-examination might be better spent on other counselling topics. Since then, concern has been raised about a missed opportunity for early diagnosis and better outcomes, both medical and psychological.⁵⁷⁹

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Testicular cancer is the most common cancer in males aged 15 to 35 years. The Canadian Cancer Society and the American Cancer Society recommend regular health visits and self-examination. A description for self examination is available.⁵⁸¹ Provision of education in-person works better than written materials only.⁵⁸²

In light of these conflicting recommendations, we recommend advising patients to be aware of changes in their testicles and seek medical advice for any changes. Tables in the Greig Health Record are included to assist with counselling those who ask for more information.

Testicular Self-Examination	
Who – adolescent males or persons with testicles	
Why – most common cancer in adolescent males	
Self-examination	Check for any changes such as a lump or tenderness https://cancer.ca/en/cancer-information/cancer-types/testicular/finding-cancer-early https://testicularcancersociety.org/pages/self-exam-how-to?
Other symptoms	Feeling of heaviness in scrotum or lower abdomen Pain, possibly mild, in the testicle or scrotum
Next Steps	See your doctor if you notice a change

Canadian Cancer Society, Testicular Cancer Society

Autoexamen testiculaire	
Qui – adolescents de sexe masculin ou personnes ayant des testicules.	
Pourquoi – le cancer le plus fréquent chez les adolescents masculins.	
Autoexamen	Palpez pour changement comme une masse ou une sensibilité.

	https://cancer.ca/fr/cancer-information/cancer-types/testicular/finding-cancer-early https://www.chumontreal.qc.ca/sites/default/files/2019-10/200-3-auto-examen-des-testicules-pensez-y.pdf
Autres signes	Sensation de lourdeur ou de tiraillements dans le bas du ventre ou le scrotum. Douleur, qui peut être légère, dans le testicule ou le scrotum.
Prochaines étapes	Consultez votre médecin si vous remarquez un changement.

Canadian Cancer Society, Testicular Cancer Society

Routine pelvic examination

While assessment of pubertal development is recommended, routine pelvic examination is not recommended.^{583 584}

Assessment of Pubertal Development

Female Sexual Maturity Rating (SMR)					
Stage	1	2	3	4	5
Age range (mean \pm 1 SD)		10.5-12.9 yrs	11.3 – 13.5 yrs	11.8 – 14.0 yrs	13.3 – 15.5 yrs
Breasts		Breast and papilla elevated as small mound, or breast bud, areolar diameter increased.	Breast and areola enlarged, no contour separation	Areola and papilla form secondary mound projecting from the contour of the surrounding breast	Adult size and contour. Areola returns to part of general breast contour, nipple projects
Pubic Hair		Hair is sparse, lightly pigmented and straight, located on medial border of labia majora	Hair is darker, more coarse, and beginning to curl, increased in amount and begins to extend laterally	Hair is coarse and curly as in the adult, hair extends across the pubis but spares the medial thighs	Adult hair – coarse and curly, spreads to medial surface of thighs
Menarche (10.8 – 14.5 yrs)		10%	30%	90%	100%
Acne			Mean age of onset – 13.2 years		

Male Sexual Maturity Rating (SMR)					
Stage	1	2	3	4	5
Age range (mean \pm 1 SD)		12.4 - 14.5 yrs	12.9 – 14.9 yrs	13.3 – 15.4 yrs	14.1 – 16.3 yrs
Penis		Slight enlargement	Begins to lengthen	Increases in length and circumference	Adult
Testes & Scrotum	Testicular Volume	volume less than 1.5 ml	1.6 – 6 ml	6 – 12 ml	12 - 20 ml
	Scrotal changes		Skin on scrotum- thins and reddens, scrotum enlarges	Further scrotal enlargement	Further scrotal enlargement, skin darkens
Pubic Hair		Small amount of long and slightly pigmented hair at base of the penis and scrotum	Hair is darker, starts to curl but small in amount	Hair is coarse and curly as in adult, extends across the pubis but spares the medial thighs	Adult hair – coarse and curly, distribution, spreads to medial surface of the thighs
Acne			Mean age of onset – 14.3 years		
Facial Hair				Facial hair develops	

Adapted from *Tanner JM, Growth at Adolescence, Blackwell Scientific Publications, Oxford, 1962 *Marshall WA, Tanner JM, Arch Dis Child 44 :291, 1969

Precocious Puberty	The appearance of physical signs of puberty before the age of 9 in boys & in girls before age 7 or 8.
Delayed Puberty	No pubertal development by 15 years in boys or 13 in girls (thelarche). Also no menarche by age 16. = 2 SD above the mean
Details in Neinstein et al. <i>Adolescent Health Care: A Practical Guide 5th edition</i> . Philadelphia: Lippincott Williams and Wilkins; 2007	
Precocious Puberty : https://emedicine.medscape.com/article/924002-overview?form=fpf Growth delay : https://emedicine.medscape.com/article/919677-overview?form=fpf	

Normes de maturité sexuelle féminine

Stade	1	2	3	4	5
Tranche d'âge (moyenne \pm 1 écart type)		10.5-12,9 ans	11.3 – 13,5 ans	11.8 – 14,0 ans	13.3 – 15,5 ans
Seins		Le sein et la papille sont élevés sous la forme d'un petit monticule ou d'un bourgeon mammaire, le diamètre aréolaire a augmenté.	Sein et aréole élargis, pas de séparation des contours.	L'aréole et la papille forment un monticule secondaire dépassant du contour du sein environnant.	Taille et contour adulte. L'aréole revient à une partie du contour général du sein, les mamelons se projettent.
Poils pubiens		Les poils sont clairsemés, légèrement pigmentés et droits, situés sur le bord médial des grandes lèvres.	Les poils sont plus foncés, plus grossiers et commencent à friser, augmentent en quantité et commencent à s'étendre latéralement.	Les poils sont rêches et bouclés, comme chez l'adulte, les poils s'étendent sur le pubis, mais épargnent la partie médiale des cuisses.	Poils adultes – grossiers et bouclés, s'étendent jusqu'à la surface médiale des cuisses.
Ménarche (10,8 – 14,5 ans)		10 %	30 %	90 %	100 %
Acné			Âge moyen d'apparition – 13,2 ans		

Normes de maturité sexuelle masculine					
Stade	1	2	3	4	5
Tranche d'âge (moyenne \pm 1 écart type)		12.4 - 14,5 ans	12.9 – 14,9 ans	13.3 – 15,4 ans	14.1 – 16,3 ans
Pénis		Léger agrandissement.	Commence à s'allonger.	Augmentation de la longueur et de la circonférence.	Adulte.
Testicules et scrotum	Volume testiculaire	<1,5 ml	1.6 – 6 ml	6 – 12 ml	12 - 20 ml
	Développement scrotal	La peau du scrotum s'amincit et rougit, le scrotum s'agrandit.	Élargissement supplémentaire du scrotum.	Augmentation du scrotum, la peau devient plus foncée.	Adulte.
Poils pubiens		Petite quantité de poils longs et légèrement pigmentés à la base du pénis et du scrotum.	Les poils sont plus foncés, commencent à friser, mais en petite quantité.	Les poils sont rêches et bouclés comme chez l'adulte, s'étendent sur le pubis, mais épargnent la partie médiale des cuisses.	Poils adultes – grossiers et bouclés, répartis, s'étendant jusqu'à la surface médiale des cuisses.
Acné			Âge moyen d'apparition de l'acné – 14,3 ans		
Poils de visage				Les poils du visage se développent.	

Adapté de *Tanner JM, Growth at Adolescence, Blackwell Scientific Publications, Oxford, 1962 *Marshall WA, Tanner JM, Arch Dis Child 44 :291, 1969

Puberté précoce	L'apparition des signes physiques de la puberté avant l'âge de 9 ans chez les garçons et chez les filles avant 7 ou 8 ans.
Puberté retardée	Pas de développement pubertaire à 15 ans chez les garçons ou 13 ans chez les filles (thelarche). De plus, pas de premières règles à 16 ans (2 écarts-types au-dessus de la moyenne). La cause la plus courante est le retard de la croissance constitutionnelle.
Détails dans Neinstein et al. <i>Adolescent Health Care: A Practical Guide 5th edition</i> . Philadelphia: Lippincott Williams and Wilkins; 2007 Puberté précoce : https://emedicine.medscape.com/article/924002-overview?form=fpf Retard de croissance constitutionnelle : https://emedicine.medscape.com/article/919677-overview?form=fpf	

Laboratory investigations

Evidence does not support routine laboratory investigations. Evidence for common laboratory screening is outlined below.

Rubella immunity should be confirmed in individuals at risk of pregnancy but laboratory screening is not necessary with documented evidence of prior rubella vaccination or immunity.⁵⁸⁵

A high index of suspicion should be maintained for iron deficiency in menstruating individuals. Children and youth with dietary, ethnic or other risk factors such as poverty and food insecurity should be considered for screening.⁵⁸⁶ When screening for iron deficiency, ferritin – not hemoglobin – is the most sensitive and specific measurement.⁵⁸⁷ Ferritin level norms in children are different from adults. New guidelines state that for pediatric populations a value less than 20 µg/L is consistent with iron deficiency, and less than 30 µg/L accompanied by anemia or microcytosis warrants treatment.⁵⁸⁸ It is important to remember that ferritin is an acute phase reactant and may be elevated in certain pathological states.

Hemoglobinopathy screening in at-risk populations is recommended for infants but insufficient evidence exists for recommending hemoglobinopathy screening in older children and adolescents.⁵⁸⁹ For newcomers to Canada, who are from endemic areas of the world, screening should be performed if no reliable screening has been performed previously. Screen with hemoglobin electrophoresis or high-performance liquid chromatography⁵⁹⁰

The Canadian Diabetes Association recommends fasting plasma glucose for screening for type 2 diabetes. Hemoglobin A1C measurement is recommended for screening if a fasting sample is not available. They recommend screening regularly for children and adolescents at risk as early diagnosis and management can reduced the risk of microvascular and cardiovascular complications.

There are no Canadian guidelines for lipid screening.⁵⁹¹ The USPSTF finds insufficient evidence to support lipid screening in children, adolescents and young adults up to age 20.⁵⁹² However, the AAP, in Bright Futures, recommends universal cholesterol screening once in the prepubertal age group and again in late adolescence.⁵⁹³

Diabetes screening

The USPSTF concludes that there is insufficient evidence to make a recommendation for diabetes screening in the general pediatric population.⁵⁹⁴ However, there are guidelines for those at higher risk due to obesity.

The Endocrine Society makes further recommendation to evaluate children with a BMI $\geq 85\%$ for diabetes, hypertension, metabolic-associated steatotic liver disease (MASLD) and hyperlipidemia.⁵⁹⁵ However, the USPSTF finds insufficient evidence to support lipid screening in children, adolescents and young adults up to age 20.⁵⁹⁶ Diabetes Canada screening for Type 2 diabetes guidelines are summarized in the table below. Fasting plasma glucose is preferred for screening over A1C measurement for children.⁵⁹⁷ Other considerations in obese children include clinical evaluation for PCOS (polycystic ovarian syndrome), obstructive sleep apnea, Cushing syndrome and hypothyroidism. The latter two are unlikely if height velocity is normal.⁵⁹⁸

Youth with a diagnosis of type 2 diabetes have increased prevalence of hypertension, dyslipidemia, and non-alcoholic fatty liver disease, and many of them go on to develop microvascular complications of diabetes by young adulthood. Unfortunately, a review of the evidence by the USPSTF could not find studies that directly evaluated the benefits or harms of screening for diabetes and prediabetes. The USPSTF recommendation statement concludes that there is insufficient evidence to make a recommendation.^{599 600} The Diabetes Canada (DC) guidelines, based on expert committee recommendations, advise diabetes prevention efforts following the Canadian 24-hour movement guidelines as well as reducing the consumption of sugar-sweetened beverages.^{389 390 601} The targeted screening of children at risk is also recommended based on an assumption that earlier diagnosis will reduce both short and long term complications. It is worth noting that 8% of all newly diagnosed children with type 2 diabetes were under the age of 10 years.^{601 602}

Laboratory screening	
Ferritin	<p>For suspected iron deficiency or anemia based on</p> <ul style="list-style-type: none"> • Diet – restrictive, vegetarian or vegan diet containing insufficient iron • Menorrhagia • Extreme exercise /endurance athletes • Low body weight • Symptomatic <p>Guideline: https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/full_fe_unit_update.pdf</p>
Lipid screening	<p>Conflicting recommendations:</p> <ul style="list-style-type: none"> • Insufficient evidence – USPSTF • Screen twice – aged 9 to 11, again age 17 to 21 –AAP
Rubella	<p>Not necessary if documentation of vaccination or prior immunity Screen sexually active females if vaccination or immunity unknown</p>
Sickle Cell and Hemoglobinopathies	If at risk and not screened in infancy
Diabetes	See chart below

Type 2 Diabetes Screening
Screen the following individuals every two years with an A1C and either a fasting plasma glucose
1. Pre-pubertal children ≥ 8 years with 3 or more of the following: OR pubertal with 2 or more of the following :
Obesity ($BMI \geq 95^{th}$ %ile)
High risk ethnicity – eg African, Arab, Asian, Hispanic, Indigenous or South Asian descent
First degree relative with Type 2 diabetes and/or exposure to hyperglycemia in utero
Signs or symptoms of insulin resistance (including acanthosis nigricans, hypertension, dyslipidemia, non alcoholic fatty liver)
2. Those with PCOS
3. Those with Impaired Fasting Glucose or Impaired Glucose Tolerance
4. Those using atypical antipsychotic medications

Diabetes Canada 2018 <https://guidelines.diabetes.ca/cpg/chapter35#sec3>.

Dépistage en laboratoire	
Ferritine	<p>En cas de suspicion de carence en fer ou d'anémie basée sur :</p> <ul style="list-style-type: none"> • régime alimentaire : régime restrictif, végétarien ou végétalien, ne contenant pas suffisamment de fer ; • ménorragie ; • athlètes d'exercices extrêmes/d'endurance ; • faible poids corporel ; • symptomatique. <p>Ligne directrice (anglais seulement) : https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/full_fe_unit_update.pdf</p>
Dépistage de l'hyperlipidémie	<p>Recommandations contradictoires :</p> <ul style="list-style-type: none"> • Preuves insuffisantes – USPSTF • Dépistage deux fois – de 9 à 11 ans, puis de nouveau de 17 à 21 ans – AAP
Rubéole	<p>Pas nécessaire si documentation d'une vaccination ou d'une immunité préalable. Dépister les femmes sexuellement actives si la vaccination ou l'immunité est inconnue.</p>

Drépanocytose et hémoglobinopathies	Si à risque et non dépisté pendant la petite enfance.
Diabète	Voir le tableau ci-dessous.

Dépistage du diabète de type 2
Dépistez les personnes suivantes tous les deux ans avec un taux d'HbA1c ou une glycémie à jeun.
1. Enfants prépubères de plus de 8 ans présentant 3 ou plus des éléments suivants OU pubertaires avec 2 ou plus des symptômes suivants :
<ul style="list-style-type: none"> • obésité (IMC > 95^e %ile) ; • origine ethnique à haut risque – par exemple, ascendance africaine, arabe, asiatique, hispanique, autochtone ou sud-asiatique ; • parent au premier degré atteint de diabète de type 2 et/ou exposé à une hyperglycémie in utero.
Signes ou symptômes de résistance à l'insuline (y compris acanthosis nigricans, hypertension, dyslipidémie, stéatose hépatique non alcoolique).
2. Ceux qui souffrent du SOPK.
3. Ceux qui ont une glycémie à jeun altérée ou une tolérance au glucose altérée.

Diabetes Canada 2018 <https://guidelines.diabetes.ca/cpg/chapter35#sec3>.

Immunizations and TB Screening

Immunization recommendations and reminders have been included as per the current Public Health Agency of Canada's National Advisory Committee on Immunization (NACI) guidelines⁶⁰³. Vaccination schedules vary among provinces/territories. For this age group, the periodic health visit is a perfect opportunity to ensure that routine vaccinations are up-to-date and to discuss the need for other vaccines, including travel vaccination and new vaccines as they become available.

Guidance for Immunization

Guidance for immunization practices including pre-administration checklists, site selection and needle size are outlined by the Public Health Agency of Canada.⁶⁰⁴ Guidelines for dosage of epinephrine in cases of suspected anaphylaxis is found on Health Canada's webpage.⁶⁰⁵

Immunization – Guidelines	
Canadian Immunization Guide	https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html
Personal Vaccination Schedule	Parent download https://www.healthycanadians.gc.ca/apps/vaccination-schedule/index-eng.php
Immunization Schedule (varies by province)	https://www.canada.ca/content/dam/phac-aspc/documents/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children/provincial-territorial-routine-vaccination-programs-infants-children.pdf
Immunization Practices – including site, needle size	https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-8-vaccine-administration-practices.html
Epinephrine Dosing Table	https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/vaccines-immunization/dosage-intramuscular-epinephrine-solution-

	age-weight/dosage-intramuscular-epinephrine-solution-age-weight.pdf
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Immunisation - Lignes directrices	
Guide canadien d'immunisation	https://www.canada.ca/fr/sante-publique/services/guide-canadien-immunisation.html
Calendrier de vaccination personnel	Téléchargement parental https://canadiensensante.gc.ca/apps/vaccination-schedule/index-fra.php
Calendriers de vaccination systématique - Varie selon la province	https://www.canada.ca/content/dam/phac-aspc/documents/services/provincial-territorial-immunization-information/provincial-territorial-routine-vaccination-programs-infants-children/programmes-vaccination-systematique-provinces-territoires-nourissons-enfants.pdf
Méthodes d'administration des vaccins (choix de l'aiguille et point d'injection)	https://www.canada.ca/fr/sante-publique/services/publications/vie-saine/guide-canadien-immunisation-partie-1-information-cle-immunisation/page-8-methodes-administration-vaccins.html
Dose d'épinéphrine	https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/vaccines-immunization/dosage-intramuscular-epinephrine-solution-age-weight/dose-epinephrine-voie-intramusculaire-age-poids.pdf

Vaccine Hesitancy

Counselling of vaccine hesitant patients and parents presents a challenge to care providers. Guidance in the literature suggests that there are a number of strategies that can be used to deliver evidence-based information in a way that promotes understanding.⁶⁰⁶ An immunization web resource is available at <https://www.ontario.ca/document/immunization-well-child-toolkit> and guidance is also available from the CPS.⁶⁰⁷

Counselling vaccine hesitant parents
Start early – even antenatally
Present vaccination as the default approach
Build trust <ul style="list-style-type: none"> • Spend time • Be respectful, Validate concerns • Be knowledgeable • Be honest about side effects • Provide reassurance on a robust vaccine safety system
Focus on protection of the child and the community
Tell stories (of own children, vaccine successes, non-vaccination consequences)
Address pain and fear
Adapted from Shen C, Dubey V. Canadian Family Physician 2019; 65(3):175-81

Vaccination Handouts / Fact sheets
https://www.canada.ca/en/public-health/services/vaccination-children.html
https://www.ontario.ca/document/immunization-well-child-toolkit
https://www.healthycanadians.gc.ca/apps/vaccination-schedule/index-eng.php

Conseiller les parents hésitants à la vaccination
Commencez tôt – même avant la naissance.
Présenter la vaccination comme approche par défaut.
Établir la confiance : <ul style="list-style-type: none"> • passer du temps ; • soyez respectueux, validez les préoccupations ; • soyez bien informé ; • soyez honnête à propos des effets secondaires ; • rassurer sur un système robuste de sécurité des vaccins.
Mettre l'accent sur la protection de l'enfant et de la communauté.
Raconter des histoires (de ses propres enfants, des succès vaccinaux, des conséquences de la non-vaccination).
Aborder la douleur et la peur.
Adapté de Shen C, Dubey V. Can Fam Phys 2019 ; 65(3):175-81

Immunisation documents à distribuer / fiches d'information
https://www.canada.ca/fr/sante-publique/services/vaccinations-pour-enfants.html
https://www.ontario.ca/fr/document/trousse-doutils-pour-limmunisation-des-enfants-en-bonne-sante
https://canadiensensante.gc.ca/apps/vaccination-schedule/index-fra.php

Pain Reduction

An evidence-based practice guideline exists for reducing the pain of childhood vaccination. Minimizing pain with vaccinations in childhood may prevent the development of needle fears and vaccine avoidance later in life. Current recommendations and evidence are in the reference as follows.⁶⁰⁸ A parent hand out and a reference for teens are available.

Vaccination – Strategies for reducing pain, the evidence
Use the least painful brand.
Keep child in a non-supine position.
<i>Rapid injection without aspiration.</i>
<i>Inject the most painful vaccine last.</i>
<i>Rub or stroke the skin of the injection site with moderate intensity before and during vaccination.</i>
Parent-led distraction or coaching may be used.
<i>Clinician-led or child-led distraction should be used.</i>
<i>Have child do slow deep breathing or blowing during vaccination.</i>
<i>Use combined psychological interventions.</i>
<i>Avoid telling child, "It won't hurt".</i>

TaddioA, CMAJ Dec14, 2010;182(14):E843-855.

Vaccination – Stratégies pour réduire la douleur, données probantes
Utilisez la marque la moins douloureuse.
Gardez l'enfant dans une position non couchée.
<i>Injection rapide sans aspiration.</i>
<i>Injectez le vaccin le plus douloureux en dernier.</i>
<i>Frotter ou caresser la peau du site d'injection avec une intensité modérée avant et pendant la vaccination.</i>
<i>Une distraction ou un encadrement dirigé par les parents peut être utilisé.</i>
<i>Une distraction dirigée par un clinicien ou par un enfant doit être utilisée.</i>
<i>Demandez à l'enfant de respirer lentement et profondément ou de souffler pendant la vaccination.</i>
<i>Utiliser des interventions psychologiques combinées.</i>
<i>Évitez de dire à l'enfant : « Ça ne fera pas de mal ».</i>

TaddioA, CMAJ Dec14, 2010;182(14):E843-855.

Vaccination – Resources for Managing Anxiety
CHEO: Needle fears and Phobias https://www.cheo.on.ca/en/resources-and-support/resources/P5018E.pdf
Anxiety Canada: https://www.youtube.com/watch?v=rp0lpKTWr4&t=5s

Peur et phobie des aiguilles
CHEO: Peur et phobie des aiguilles https://www.cheo.on.ca/en/resources-and-support/resources/P5018F.pdf

Alternate Immunization Schedules

Consult the Canadian Immunization guide for catch-up dosing for individuals not immunized according to the recommended schedule or for whom records may be lacking.^{609 610}
An immunization schedule for persons new to Canada is available.⁶¹¹

Tetanus and Pertussis and Polio

Following a primary series in infancy, a booster dose of DTaP-IPV or Tdap-IPV is given at school entry (age 4 to 6 years). An additional dose of Tdap vaccine is given at 16 years of age.⁶¹²

Measles, Mumps, Rubella and Varicella Vaccination

Two doses of MMR vaccine and two doses of varicella vaccine should be given; the first between 12 and 15 months of age and the second dose at 18 months of age to school entry (age 4 to 6 years).⁶¹³ Only one dose is needed for adequate rubella protection; however, protection for measles and mumps requires two doses.⁶¹⁴ Note that varicella may be given in combination with MMR or separately for school-aged children however months of age.⁶¹⁵ This recommendation is different from the guidance for ages 12 to 23 months which states, “When the first dose is administered to children 12 to 23 months of age as MMRV vaccine, there is a higher risk of fever and febrile seizures in the 7 to 10 days after vaccination when compared to separate administration of MMR and univalent varicella vaccine at the same visit. This risk is estimated at about 1 additional febrile seizure for every 2,300 to 2,800 doses of MMRV vaccine.”⁶¹⁶

Hepatitis A

Hepatitis A is recommended for school-aged children and adolescents at increased risk for Hepatitis A exposure. Two doses are given. There are three brands of vaccine in Canada with slightly different age, dose, and schedule recommendations. See Canadian Immunization Guide for details. Persons at risk include travellers to endemic countries, those exposed through outbreaks or household contacts or injection drug use, men who have sex with men, those with occupational risks and those receiving repeated clotting factor replacement. Pre-exposure prophylaxis is up to 97% effective⁶¹⁷

Hepatitis B

With hepatitis B, the initial infection is asymptomatic in more than 90% of children and infants and younger children are at higher risk of becoming chronically infected. The vaccine is 95 to 100% effective

when given prior to exposure. Thus, routine vaccination is recommended for all children. Persons at highest risk are those exposed through birth from maternal carriage, through injection drug use, through household contact with carrier and through sexual activity. In Canada, carriage rates are about 0.5% of the total population. According to the Public Health Agency of Canada, “The incidence of HB has decreased in all age groups, coinciding with the increasing use of vaccine and has virtually disappeared in the cohorts that have benefited from routine immunization programs in Canada.”

Because of the high risk of Hepatitis B chronicity in those exposed under 7 years of age, vaccination in infancy is supported public health departments across Canada with some provinces and territories supplying universal vaccination for all infants and other provinces only for infants for those born to individuals at higher risk with universal vaccination delayed to ages 9 to 12. Catch-up vaccination should be provided to any individuals who may have missed their routinely scheduled vaccines.

Immunity after vaccination, using the appropriate schedule, results in lasting immunity for at least 30 years. Thus booster doses for those vaccinated in infancy are not required.⁶¹⁸

Human papillomavirus (HPV)

In North America, HPV is the most common STI. The highest prevalence is in persons 20 to 24 years.

Without vaccination, it is estimated that sexually active Canadians have an estimated 75% likelihood of HPV in during their lifetimes. The CPS recommends that HPV9 vaccine be administered to all children at 9 to 13 years of age and can be given simultaneously with other routine adolescent vaccinations.

Reduction in cervical intraepithelial neoplasia reduction is most effective in those vaccinated before age 15 years.⁶¹⁹ NACI makes strong recommendations for the following: HPV vaccination for all individuals aged 9 to 26 years, one dose for ages 9 to 20 years and two for older individuals, and the nonavalent vaccine should be used. Doses should be 24 weeks apart. Immunocompromised individuals should have 3 doses. Individuals should be observed for 15 minutes post-vaccination as syncope is more common in younger people.⁶²⁰ Regarding future cervical cancer screening, immunized individuals should still be screened as they may have been exposed to other high-risk HPV types and they may have been exposed prior receipt of vaccination.⁶²¹

Meningococcal Vaccines

Invasive meningococcal disease (IMD) in Canada is endemic but rates of occurrence are low. Vaccination is recommended as the mortality is approximately 10% and 10 to 20% of survivors have serious long-term sequelae. The majority of serotypes are A, B, C, Y and W. Groups with the highest incidence of IMD in the age groups are infants under one year, followed by children aged 1 to 4 years and then youth age 15 to 24 years.

Vaccines available

Vaccines available include monovalent conjugate meningococcal C vaccines (Men-C-C), quadrivalent conjugate meningococcal vaccines (Men-C-ACYW) and vaccines for meningococcal B strains (MenB), 4CMenB and a bivalent factor-H binding protein vaccine (MenB-fHBP). These vaccines may be administered at the same time as routine vaccines.

Efficacy

The vaccines are highly effective but over time the effectiveness declines.⁶²² For most meningococcal conjugate vaccines, immunity wanes within 5 years following immunization. Data for serogroup B vaccines is limited but immunity is likely to persist for up to 4 years in more than 50% of recipients.⁶²³ The disease has a short incubation time; maintaining high circulating antibody titres for those at risk is important.

Meningococcal Vaccination Schedules

In Canada, vaccines are available which offer protection against strains of meningococcus A, B, C, W and Y.

Individuals at higher risk of IMD are summarised in the table below and may require different vaccines and vaccination schedules from the healthy population. Immunization with Men-C-ACYW and MenB-fHBP is recommended. Repeated boosters are required for ongoing risk.

For children under 12, and especially under 2 years, vaccine recommendations are under review. Currently, M-C-C is recommended to be given at 12 months. MenB vaccines **may** be considered on an individual basis. Consult the Canadian Immunization Guide for updates.

For adolescents, vaccination is recommended at age 12 years, even for those previously vaccinated as infants or toddlers. Currently, either the monovalent Men-C-C or quadrivalent Men-C-ACYW may be used depending on local epidemiology. MenB vaccines may be considered for persons at higher risk.⁶²²

The United States has higher rates of IMD and local epidemiology may be different from Canada. The Centers for Disease Control and Prevention (CDC) recommend a dose of (Men-C-ACYW) at approximately 11 to 12 years and a booster at 16 years of age. The CDC also states that persons aged 16 to 23 years **may** receive MenB vaccination and that the preferred age is 16 to 18 years. In addition, they recommend this vaccination for persons at higher risk due to an outbreak of meningococcal B disease or at higher risk due to other health concerns.⁶²⁴

Creating a uniform recommendation for meningococcal vaccination for Canada is challenging. According to a recent NACI statement, the epidemiology of IMD has changed and is changing significantly in Canada. Incidence and distribution of serotypes vary by age group and province or territory. The majority of invasive meningococcal disease (IMD) caused by serotypes A, C, Y and W135 combined but meningococcal B strains account for the largest proportion of cases by single strain.⁶²⁵ Following local public health guidelines is recommended.

Recommendation for the timing and choice of vaccines is under scrutiny. Vaccine protection is of short duration and studies indicate that carriage of meningococcus peaks around age 19 years.^{626 627} Incidence of IMD in 11- and 12-year-olds is low. Later vaccination in 16- and 17-year-olds may be more efficacious.⁶²⁸

The rise in Meningococcal B incidence provides a public health challenge. There is higher risk of exposure in “students in congregate settings or children and adolescents living in regions with circulating

hypervirulent clones”. Two meningococcal B vaccines are available in Canada, MenB4C (Bexsero) and MenBFHbP (Trumenba). They are not interchangeable. The MenB4C may offer some cross-protection against *N. gonorrhoea*. Unfortunately, neither vaccine has an effect on carriage, and as a result neither is effective in providing herd immunity. NACI currently recommends the development of vaccination policies by regional programs for those at higher risk of exposure. Two doses of MenB vaccine are required. ^{625 626} Ongoing evaluation of local serotypes and changing epidemiology will be necessary for future vaccination recommendations. ⁶²⁹

A note to discuss immunization for Men B is added to the Greig Health Record although no specific recommendation for vaccination is made at this time.

Immunization for those at Higher Risk for Invasive Meningococcal disease
Recommendations: <ul style="list-style-type: none"> Immunization with Men-C-ACYW with MenB-fHBP or 4CMenB is recommended. Consult the Canadian Immunization Guide for details
Medical conditions: <ul style="list-style-type: none"> Functional or anatomic asplenia, sickle cell disease, combined T and B cell immunodeficiencies Congenital complement, properdin, factor D or primary antibody deficiencies Acquired complement deficiency following receipt of eculizumab or ravulizumab HIV positive
At increased risk for exposure <ul style="list-style-type: none"> Travellers to endemic areas esp. sub-Saharan Africa and pilgrims to the Hajj in Mecca, Laboratory personnel with risk for meningococcal exposure Military personnel at risk for exposure Close contact of a case of IMD Outbreak settings of vaccine preventable strain

Adapted from PHAC Canadian Immunization Guide

Immunsisation pour personnes à risque élevé pour l'infection invasive à méningocoque
Recommandations : <ul style="list-style-type: none"> La vaccination avec Men-C-ACYW avec MenB-fHBP ou 4CMenB est recommandée. Consultez le Guide canadien d'immunisation pour plus de détails.
Conditions médicales : <ul style="list-style-type: none"> asplénie fonctionnelle ou anatomique, drépanocytose ; des déficits immunitaires congénitaux tels que des déficits en complément, une carence congénitale en properdine ou en facteur D, une immunodéficience combinée des cellules T et B ou une immunodéficience en anticorps primaires ; un déficit acquis en complément après avoir reçu l'écilizumab ou le ravulizumab ; séropositives pour le VIH.
Risque accru d'exposition : <ul style="list-style-type: none"> les voyageurs vers des zones endémiques, en particulier l'Afrique subsaharienne et les pèlerins du Hajj à la Mecque ; personnel de laboratoire présentant un risque d'exposition au méningocoque ; personnel militaire à risque d'exposition ; contact étroit d'un cas d'infection invasive à méningocoque ; risque dans un contexte d'éclosion, si la maladie est causée par un des sérogroupes évitables par la vaccination.

Mpox

Mpox guidance is evolving. Pre-exposure vaccination is recommended for persons at risk due to practices and local epidemiology. Please see STI section above and consult <https://www.canada.ca/en/public-health/services/diseases/mpox/health-professionals.html> for further information. Vaccination recommendation is two doses of Imvamune, a non-replicating smallpox vaccine, given subcutaneously, separated by a minimum interval of 28 days. Deciding on to whom and when to offer vaccination should be directed by local public health units.⁶³⁰ The CDC recommends vaccination subcutaneously for persons under 18 years of age, vs intradermally. A lower age limit is specified.⁶³¹

Pneumococcal Vaccination

For healthy children and adolescents, ages 6 to 18 years, no vaccinations are required. For children at increased risk of invasive pneumococcal disease, one dose of Pneu-C-20 should be given.⁶³²

Influenza vaccination in children

The Public Health Agency of Canada recommends offering annual influenza vaccination to all individuals over 6 months of age and older. Those over 9 years of age should receive one dose. Those between 6 months and up to 9 years, who have not been previously immunized, should get two doses one month apart and for subsequent seasons, one dose.

Vaccination is the best way to prevent the spread of influenza. The risk of complications from influenza is greatest in children under 5 years and adults over 65 years, especially those with chronic health issues.⁶³³

A recent Cochrane review examined influenza vaccination in children 16 years and under. For children between 3 and 16 years receiving live attenuated vaccine, there was moderate certainty evidence that vaccination reduced influenza, with a number needed to treat (NNT) of 7. For inactivated vaccines, the evidence was high certainty with a NNT of 5. Both live and inactivated vaccines reduced influenza-like illness, but the evidence was of low-certainty and NNTs were 20 and 12 respectively. Adverse events were not well described and identification of harms was beyond the scope of the review. No recommendation for or against vaccination could be given.⁶³⁴

COVID-19 Vaccination in children and adolescents

COVID-19 infection in children under 12 usually causes mild or no symptoms. However, some children are at higher risk and it is recognized that long-term symptoms can occur even in those at low risk.⁶³⁵ The Canadian Paediatric Society recommends that a primary vaccination series should be offered to all immunocompetent children and youth 5 years and older. After infection with COVID-19, an appropriate interval should have elapsed prior to vaccination.⁶³⁶ Up to date vaccination recommendations can be found at <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian->

[immunization-guide-part-4-active-vaccines.html](#) It is anticipated that updated COVID vaccinations will be needed as new strains evolve.⁶³⁷

Tuberculosis Screening

Tuberculosis screening should be limited to high-risk groups. Although active TB is uncommon among Canadian-born children (except in the Indigenous population), recent immigrants from a country with high incidence are at higher risk. Screening of children and adolescents soon after arrival is recommended.⁶³⁸

The AAP in Bright Futures recommends TB screening in individuals at risk as outlined in the table below.⁶³⁹ In young adults, 18 and older, TB screening is recommended for individuals at higher risk. These include those who are “Born in, or former residents of, countries with increased TB prevalence; living in, or who have lived in, high-risk congregate settings (eg, homeless shelters, correctional facilities); and immunocompromised or living with HIV.”⁶⁴⁰

Screening for Tuberculosis

Tuberculosis Screening
Screen children and adolescents who:
<ul style="list-style-type: none">• Are infected with human immunodeficiency virus (HIV)• Have a family member or close contact with TB or a positive TB skin test• Were born in a high-risk country and individuals in communities of higher risk eg some Indigenous communities• Travelled to a high-risk country for more than a week
Bright Futures – AAP https://downloads.aap.org/AAP/PDF/Bright%20Futures/BF4_Evidence_Rationale.pdf

Dépistage de la tuberculose
Dépister les enfants et les adolescents qui :
<ul style="list-style-type: none">• sont infectés par le virus de l'immunodéficience humaine (VIH) ;• ont un membre de la famille ou un contact étroit avec la tuberculose ou un test cutané positif à la tuberculose ;• Sont nés dans un pays à haut risque et sont des individus vivant dans des communautés à haut risque, par exemple certaines communautés autochtones• ont voyagé dans un pays à haut risque pendant plus d'une semaine.
Bright Futures – AAP https://downloads.aap.org/AAP/PDF/Bright%20Futures/BF4_Evidence_Rationale.pdf

General Guidance

General guidance is provided in the Greig Health Record in the form of a summary table on how to use the checklist and links to websites that provide a wide range of pediatric information.

Summary of guideline elements
General

	Visits recommended every one to two years.
	Use other visits as opportunities to address prevention
Adolescent	
	At least part of the visit with parents or guardians excused.
	Confidentiality is central to the interaction.
	Minors can give consent. Must understand treatment, risks and consequences. Confidentiality is central but exceptions exist with homicidal and suicidal ideation and with abuse.
School and Activities, Peer relationships	
	Ask about enjoyment, performance, challenges. Ask about activities.
	Ask about bullying including cyber-bullying.
Family Relationships	
	Ask about who lives there. How does everyone get along? Who can the patient talk to?
Mental Health	
	Ask about mood and stresses. Ask about coping
	Maintain vigilance for signs and symptoms of depression and anxiety.
Poverty Screen	
	Ask parent or responsible adult: "Do you ever have difficulty making ends meet by the end of the month?"
Substances and Addictions	
	Ask if any use in the last 12 months of: 1. alcohol 2. smoking / nicotine / vaping 3. cannabis / marijuana / drugs
	Can include smoking including e-cigarettes, caffeine, alcohol, drugs, gambling, internet, gaming, pornography.
Sleep	
	Ask about duration, daytime somnolence, issues with concentration, irritability
Body Image	
	Ask about desire to change body, desire to change weight, self-esteem, foods eaten, weight control behaviours, obsessive thinking about food, weight, shape or exercise.
Sexual Health and Relationships	
	Refer to Sexual History table as needed
	Consider consent, sexting, dating violence, contraception, STI screening, HIV
Nutrition	
	Ask about special diets such as vegetarian, gluten-free, dairy or lactose free
	Ask about supplements, alternative medicine
Safe Media Use	
	Ask about duration, type of media use, safety-on-line, protecting personal information
Hearing Protection	
	Keep volume down on personal players. Ear protection for concerts etc.
	Wear properly fitting earbuds and earphones
Helmets	
	Good evidence for use and counselling
Firearms	
	Counsel to remove from home, or safe storage if removal not possible
Water safety	
	No clear evidence that swim lessons prevent drowning or near-drowning. Active supervision and pool fencing work. Never swim alone. Use PFDs on the water.
Sun safety and tanning	
	Avoid excessive sun exposure, use sun-protection.
	Avoid commercial tanning facilities
Workplace	
	Advise adolescents that workplace injuries are largely preventable.
	Advise adolescents that working more than 20 hours per week can cause distress
	Discuss farm and fishing operation and other workplace safety for children who may be exposed to such work environments
Environmental Hazards	
	<i>Advise avoidance of toxins</i>
Second-hand smoke	
	Good evidence of harm – a cause of asthma, worsening respiratory infections and asthma
Smoke Detectors	
	<i>Use and maintain smoke detectors to save lives. Replace every 10 years.</i>
Abuse	
	Mandatory reporting
	Educate children for what constitutes abuse and what they can do about it.
	<i>Fair evidence to exclude the use of specific screening tools</i>
Dental care www.cda-adc.ca/ files/position_statements/fluoride.pdf	

	<i>Professional care reduces caries</i>
	Discuss fluoride supplementation where not present in sufficient amounts in drinking water.

Résumé des éléments de la directive	
Général	
	Visites recommandées tous les ans ou aux deux ans
	Utiliser les autres visites comme des occasions de prévention
Adolescent	
	Au moins une partie de la visite sans la présence des parents ou des tuteurs
	La confidentialité est au cœur de l'interaction.
	Les mineurs peuvent donner leur consentement. Ils doivent comprendre le traitement, les risques et les conséquences. La confidentialité est essentielle, mais des exceptions existent dans les cas de maltraitance ou d'idées homicides et suicidaires et de maltraitance.
École et activités, relations avec les pairs	
	Poser des questions sur le plaisir, les performances, les défis. Poser des questions sur les activités.
	Poser des questions sur l'intimidation, y compris la cyberintimidation.
Relations familiales	
	Qui vit à la maison ? Comment s'entendent-ils ? À qui le patient peut-il parler ?
Santé mentale	
	Se renseigner sur l'humeur, le stress et les capacités d'adaptation
	Rester vigilant face aux signes et symptômes de dépression et d'anxiété.
Dépistage de pauvreté	
	Demander au parent ou au tuteur de l'enfant : « Avez-vous déjà eu du mal à joindre les deux bouts à la fin du mois ? »
Substances et dépendances	
	Demander s'il ou si elle a consommé au cours des 12 derniers mois : 1. de l'alcool 2. du tabac / de la nicotine / du vapotage 3. du cannabis / de la marijuana / des drogues
	Peut inclure le tabagisme, y compris les cigarettes électroniques, la caféine, l'alcool, les drogues, les jeux de hasard/ jeux d'argent, Internet, les jeux vidéo et la pornographie.
Sommeil	
	Se renseigner sur la durée, la somnolence diurne, les problèmes de concentration, l'irritabilité
Image corporelle	
	Se renseigner sur le désir de changer de corps, le désir de changer de poids, l'estime de soi, les aliments consommés, les comportements de contrôle du poids, les pensées obsessionnelles sur la nourriture, le poids, la forme du corps / silhouette ou l'exercice physique.
Santé sexuelle et relations saines	
	Se référer au tableau des antécédents sexuels si nécessaire.
	Consentement, sextage, violence dans les relations amoureuses, contraception, dépistage des IST, VIH
Nutrition	
	Demander s'il y a des régimes spéciaux qui sont suivis tels que végétarien, sans gluten, sans produits laitiers ou sans lactose.
	Demander au sujet des suppléments et la médecine alternative.
Utilisation sécuritaire des médias	
	Se renseigner sur l'utilisation des médias, la durée, le type d'utilisation des médias, la sécurité en ligne et la protection des informations personnelles.
Protection auditive	
	Garder le volume bas. Protection auditive pour les concerts, etc.
	Portez des écouteurs et des oreillettes bien ajustés.
Sécurité du casque	
	Bonnes preuves pour l'utilisation et le conseil
Armes à feu	
	Conseil pour les retirer du domicile ou pour les stocker en lieu sûr si le retrait n'est pas possible
Sécurité aquatique	

	Il n'existe aucune preuve claire que les cours de natation préviennent la noyade ou la quasi-noyade. La surveillance active et la mise en place de barrières autour de la piscine sont efficaces. Ne jamais nager seul. Porter un vêtement de flottaison.
	Protection solaire
	Éviter l'exposition excessive au soleil, utilisez une protection solaire. Éviter les salons de bronzage commerciaux
	Lieu de travail
	Expliquer aux adolescents que les blessures au travail sont en grande partie évitables.
	Prévenir que travailler plus de 20 heures par semaine peut causer de la détresse
	Discuter de la sécurité des exploitations agricoles et de pêche et d'autres lieux de travail pour les enfants qui peuvent être exposés à de tels environnements de travail.
	Risques environnementaux
	<i>Conseiller d'éviter les toxines, y compris la fumée secondaire</i>
	Fumée secondaire
	Preuves solides de dommages, une cause d'asthme, d'aggravation des infections respiratoires et d'asthme.
	Détecteurs de fumée
	<i>Utiliser et entretenir les détecteurs de fumée pour sauver des vies. Les remplacer tous les 10 ans.</i>
	Abus
	Déclaration obligatoire. Expliquer aux enfants ce qui constitue un abus et ce qu'ils peuvent faire à ce sujet. Preuves suffisantes pour exclure l'utilisation d'outils de dépistage spécifiques.
	Soins dentaires
	<i>Les soins professionnels réduisent les caries.</i> Discuter de la supplémentation en fluorure lorsque celui-ci n'est pas présent en quantité suffisante dans l'eau potable.

General Health Resources	
CPS	https://www.aboutkidshealth.ca/
CHEO	https://outreach.cheo.on.ca/health-information-resources/health-education-info
Montreal Children's Hospital	https://www.thechildren.com/health-info
Nemours	https://kidshealth.org/
University of Michigan	https://umhs-adolescenthealth.org/wp-content/uploads/2020/08/youth-friendly-websites-and-apps-list.pdf

Ressources générales sur la santé	
CPS	https://www.aboutkidshealth.ca/fr
CHEO	https://outreach.cheo.on.ca/health-information-resources/health-education-info
CHUM	https://www.chumontreal.qc.ca/fiches-sante
Hôpital de Montréal pour enfants	https://www.hopitalpourenfants.com/info-sante

Supplementary Pages

Additional information in the updated Greig Health Record has expanded supplementary pages of guidelines and resources. There are now 5 pages of Resources and Guidelines for Clinicians and 3 Pages of Resources and links for Patients and Families. The Patient pages are designed to be printed and provided as handouts.

Topics covered in the Clinician pages include Page 1 – Anticipatory Guidance, Immunization, and General Screening; Page 2 – Psychosocial Issues, Special Needs and Populations at Risk, Page 3 – Mental

Health, Substances and Addictions, Eating Disorders, Page 4 – Developmental Milestones, Puberty, Menstrual Health, Page 5 – Sexual Health and Healthy Relationships.

Topics covered in the Patient pages include Page 1 – Healthy Living, Page 2 – Parenting, Mental Health, Substances and Addictions and Eating Disorders, Page 3 – Sexual Health and Relationships, Menstruation, Testicular Self-Examination.

French Resources

Pages of resources in French are included where available.

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