



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

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.

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

Immunization for those at Higher Risk for Invasive Meningococcal disease
Recommendations: 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

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

Vaccination – Resources for Managing Anxiety
CHEO: Needle fears and Phobias https://www.chéo.on.ca/en/resources-and-support/resources/P5018E.pdf
Anxiety Canada: https://www.youtube.com/watch?v=rp0lpKTWrp4&t=5s

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 Born in a high-risk country 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

Laboratory screening	
Ferritin	For suspected iron deficiency or anemia based on <ul style="list-style-type: none"> Diet – restrictive, vegetarian or vegan diet containing insufficient iron Menorrhagia Extreme exercise /endurance athletes Low body weight Symptomatic Guideline: https://www2.gov.bc.ca/assets/gov/health/practitioner-pro/bc-guidelines/full_fe_unit_update.pdf
Lipid screening	Conflicting recommendations: <ul style="list-style-type: none"> Insufficient evidence – USPSTF Screen twice – aged 9 to 11, again age 17 to 21 -AAP
Rubella	Not necessary if documentation of vaccination or prior immunity Screen sexually active females if vaccination or immunity unknown
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: <ul style="list-style-type: none"> Obesity (BMI ≥ 95th %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 .