5 Clinical assessments

Clinical assessment of adults

Attention

- **If visitor to community** — get permission to call their clinic/doctor for up-to-date medical information, or to access their PCEHR
- **Have clinic process for matching the person to the right file notes**. When person arrives check full name, age, date of birth (if able). If English a problem — use other identifying points, eg relatives' names, skin names etc
- **Be systematic and thorough** (comprehensive) — use look, listen, feel, discuss. ***Remember:*** Person may have more than one thing wrong
- **Use holistic approach** — consider physical, emotional, social, spiritual wellbeing of person, in context of their family and community
- **Explain what you are doing as you go along**. Encourage, reassure, apologise for any discomfort you are causing, ask permission to continue
- **Use opportunity to talk to person about their health problems and risk factors**. Offer advice and education if they are interested — brief intervention (*CARPA STM p262*). If first time you have seen them — think about asking them to come back to talk about these issues

What you need

Paper work and admin

- Person's file notes
- Clinical protocol/procedure manuals
- Appointment cards

Equipment

- Stethoscope
- BP machine
- Scales
- Tape measure
- Thermometer
- Hb machine
- Glucometer
- Point-of-care testing machine
- O_2 sats machine
- Stadiometer
- Blood collection equipment (*p362*)
- Urine pots, urine dip sticks
- Education materials about condition and/or treatment, eg displays, models, pamphlets

What you do

Before starting consult

- Think about cultural safety — who is right person to do consult, gender issues, how can person be made comfortable
- **Read file notes**. Don't duplicate work already done by colleagues

Starting consult

- **Open consult** — greet person by name, introduce yourself
  - Check file notes you have belong to this person
- **Start assessment as person walks through door**. Notice general appearance, speech, gait, posture and body shape, skin, odour, personal details such as clothing
  - If clearly medical emergency or trauma situation — go straight to appropriate protocol/procedure
- Check you have following information, ask if anything has changed
  - Allergies, eg to food, medicine, animals, other things
  - Medicines
    - Prescribed — how long, what, when, where, why, any problems
    - Over the counter, herbal, alternative, traditional/bush
    - Contraceptives
  - Immunisation status

History taking

Presenting complaint

- Why they have come today
- Listen, encourage, use silence (give person space to consider and talk). Listen for **OLD CARTS**

O nset — when did it start
L ocation — where does it hurt, where is problem
D uration — how long, had it before, what happened then
C haracteristics — description of pain, problem
A ggravating factors — what makes it worse
R elieving factors — what makes it better
T reatments — what have they tried, what they think it is, how it is impacting on them and others, anything else
S igns and symptoms (other) — other problems, quick systems review, last menstrual period, anything else you need to know to look after them

- Have they had contact with someone different, been doing anything different lately, eg travel, work, activities

- **If you can't work it out** — work backwards. What were they doing, what did they eat/drink this morning, last night, yesterday

Review

If new to service or not yet recorded — may take several visits to complete.

- Ongoing health problems
- Screening tests — last health check, pathology results, follow-up
- Current health status — SNAPE

S moking — how many, how long, quitting experience
N utrition — appetite, weight gain/loss, diet
A lcohol and Drugs — how much, how long, quitting experience
P hysical activity — when, what, how often
E motional wellbeing — motivation, enjoyment, more or less happy, more or less sleep, looking forward to anything, anxiety, self harm, family violence ('do you ever feel unsafe') (*CARPA STM p219*)

- **Past medical history** —from person, relatives, other clinics, hospital records
  - Illnesses — as child/adult, psychological
  - Accidents, injuries, domestic violence (*CARPA STM p219*)
  - Chronic disease
  - Hospitalisation, operations
  - Gynaecological/obstetric — periods, number of pregnancies, number of live births, child spacing, contraception, sterilisation
- **Family medical history** — partner, children, parents, siblings, grandparents
- **Social history** — eg CLOSE

C lose relationships and responsibilities
L iving arrangements — including income and transport
O ccupation (past and present), environmental hazards, interests/activities
S upports/strengths — including cultural, social
E ducation

Clinical examination

- Temp, pulse, BP, RR
- Other investigations as needed, eg U/A, BGL (*p373*), Hb (*p375*), O_2 sats, weight, BMI (*p129*), waist circumference (*p132*)
  - Offer appropriate screening tests, eg Adult Health Check (*CARPA STM p256*), STI check (men *CARPA STM p308,* women *WBM p250*)

- Use history to determine examinations needed
  - Always examine systems associated with presenting complaint, and systems above and below
  - Hands can be non-threatening place to start physical examination

Examining hands

- Hold hands flat, look for deformities, eg clubbing — F 5.1, spooning — F 5.2
- Check capillary return by pressing on nail bed and letting go. Pink colour should return in less than 2 seconds
- Ask person to squeeze your hands. Is pressure the same on both sides
- Gently move and rotate hands and elbows, check tone and strength

5.1

5.2

- Follow appropriate procedure for each system review needed, eg
  - Skin examination (*p286*)
  - Eye examination (*p136*)
  - Ear examination (*p152*)
  - Mouth and throat examination (*p166*)
  - Lungs and respiratory system examination (*p170*)
  - Abdominal examination (*p184*)
  - Rectal examination (*p190*)
  - Foot examination (*p279*)

Managing care

- **Talk about findings**. Summarise what person said, what you found (or didn't find), explain what you think it is (or isn't). Use diagrams
- **Think about**
  - Age/place risk — what's common or high risk in this age group, and/or this place
  - What you can't afford to miss — what's most likely, what is clinically important
  - What person is trying to tell you
- Use clinical guidelines to determine best treatment options
  - Think about patient preferences and limiting factors, eg pregnancy, allergies, location, travel needs
- Talk with person about care options, management plan, further investigations, referrals to other services or specialists
- Offer due/overdue care for ongoing conditions, eg see Combined checks for chronic diseases (*CARPA STM p277*)

- Agree on follow-up, when to come back for review, results, next check
  - Offer follow-up even if person doesn't want treatment at this time
- Talk about risk factors and health promotion, record any strategies or changes that person says they will (or won't) try, eg diet, exercise, quitting smoking
- Think about public health issues, health promotion, immunisation, screening

If giving medicines remember the 5 rights (*p337*)
- Right person
- Right medicine
- Right dose
- Right route
- Right time

Finish consult

Close consult

- Summarise management plan and follow-up for person
- Give appointment card, referrals, prescriptions/medicines as needed
- Check for final questions
- Encourage, reassure, give hand-out on condition and/or treatment

Document consult

- Record straight away
  - In file notes using local system, eg SOODA-F (*p134*)
  - In PCEHR
  - On clinic recall system
- Send letters/summaries to other services identified by person

Reflect on consult

- How did it go
- What did you notice about person, about yourself or your reactions

Clinical assessment of children


Attention

- **Prepare for children**
  - Have toys or paper and pencils to occupy child, lets you watch them playing
  - Watch child during whole consultation. Do they look sick, are they in pain or lethargic, are they interacting with parent/carer
  - Keep hands off as long as possible, watch and observe as you listen

- Keep child development chart on clinic wall for easy reference
- ***Remember:*** Charter on Rights of Children and Young People in Health Care Settings in Australia

What you need

- Equipment on list (*p116*)

What you do

Starting consult

- **Open consult** — introduce yourself to child and parent/carer
  - Use child's name
  - Record name of parent/carer with child's name
  - Check who is legal guardian of child
- **Find out why child is there**
  - If new problem — start by taking a history
  - If review or follow-up — check file notes for earlier consult, follow-up plan
  - If child has chronic condition
    - Check file notes for latest letter/s from specialist/s, management plans
    - Check recall system for scheduled follow-up
    - Take history, examine child with focus on chronic disease

History taking

- Ask about problem. When did it start, where, how bad, what makes it worse, what makes it better
- Ask general questions about child. Feeding well, sleeping, waking and playing normally
- Background
  - All file notes — local, from hospitals, other clinics
  - Mother's health in pregnancy, birth, neonatal problems
  - Other family health issues

- For specific questions — see
  - *Breathing problems in children* (*CARPA STM p125*)
  - *Babies under 2 months who are sick or have a fever* (*CARPA STM p123*)
  - *Diarrhoea* (*CARPA STM p169*)
  - *Ear and hearing problems* (*CARPA STM p175*)
  - *Child abuse and neglect* (*CARPA STM p142*)
  - *Urine problems – 2 months to 12 years* (*CARPA STM p190*)
  - *Infant and child growth and nutrition* (*CARPA STM p157*)
- Immunisation status
- Medicines, allergies
- Child's diet, what they usually eat and drink
- Concerns about child's development (*CARPA STM p152*)
- Social issues — who is in the family, income, food supply, washing facilities for child, pets
- Environment — smoke exposure, domestic violence, child safety, can they swim, heating and cooling, refrigeration, insect screens, dust control

Clinical examination

Note: To assess young child properly you must undress them. Young children may be more comfortable sitting on carer's lap

- Use a systematic approach
  - If not sure — ask senior colleague to check, or **medical consult**
- **Observe** — before touching
  - Behaviour
  - Conscious state
  - Interaction with parent/carer, with yourself
  - Colour, cough, respiratory distress, looks sick or well
  - If crying — character of cry eg irritable, high pitched, whimpering
  - Respiratory rate
- **Examine** from head to toe — do ENT examination last, likely to upset child
  - Fontanelle — sunken, bulging
  - Eyes — colour, discharge
  - Hair
  - Neck — look and feel for lymph nodes
  - Chest — remove shirt completely
    - Look at work of breathing eg indrawing, nasal flaring
    - Listen for heart sounds, eg murmur
    - Listen for breath sounds, eg crackles, wheeze

- Abdomen — lie child down. Is it soft, check for tenderness, masses, guarding. Bowel sounds.
- Genital area — nappy rash, lesions, testes descended in boys
- Hands and feet
- Skin — look all over for bruises, sores, other lesions
- Check hydration/dehydration
- Look in ears with otoscope (*p153*)
- Look in mouth at teeth, tongue and throat

- **Measure**
  - Height/length
  - Weight
    - Under 2 years — **naked**
    - 2 years and over — light clothes without shoes
  - Head circumference — under 1 year
  - Temp (*p126*), pulse (*p126*), BP (*p127*)
    - If BP at or above levels in Table 5.1 — needs further investigation

Table 5.1: BP values that need further investigation by age and sex

Age (years)	BP (mmHg)			
	Male		Female	
	Systolic	Diastolic	Systolic	Diastolic
3	100	59	100	61
4	102	62	101	64
5	104	65	103	66
6	105	68	104	68
7	106	70	106	69
8	107	71	108	71
9	109	72	110	72
10	111	73	112	73
11	113	74	114	74
12	115	74	116	75
13	117	75	117	76
14	120	75	119	77
15	120	76	120	78
16	120	78	120	78
17	120	80	120	78
18 and over	120	80	120	80

Managing care

- After determining the problem, get advice from doctor or more experienced member of health team if needed before making a final management plan
  - See protocols for specific problems
- When management plan decided
  - Talk with child and parent/carer about plan
  - If more than 1 thing — write plan down for parent/carer
  - If referral needed — talk with parent/carer about this
- If giving medicines (*p337*) — get medicine from dispensary, show to parent
  - Give or watch parent/carer give first dose if possible. Explain how often and how long to give
  - Advise parent/carer where to store medicine, side effects, warnings

Finishing consult

Close consult

- Summarise management plan and follow-up for child, parents/carers
- Give appointment card, referrals, prescriptions/medicines as needed
- Check for final questions
- Encourage, reassure, give hand-out on condition if available

After the consult

- Record straight away
  - In file notes using local system, eg SOODA-F (*p134*)
  - In PCEHR
  - On recall system
- Send letters/summaries to other services identified by parent/carer

Adolescents

Attention

- Key principles
  - Young people over 16 years can generally access health services independently
  - Young people under 14 years should be accompanied by a parent or guardian
  - Young people 14–16 years may be able to access health care and give consent to treatment if they are assessed to be a 'competent minor'

- Competency
  - For young person 14–16 years to be 'competent' they must understand
    - Treatment options including side effects
    - Health issue
    - Consequences of no treatment
  - Also consider nature of health issue
    - Adolescent may be deemed competent to provide consent for relatively minor issue, eg contraception, but not for life threatening issue, eg surgery
  - If intellectual disability or severe mental illness, eg acute psychosis — may not be competent, even if over 16 years
  - Adolescents who can't provide 'consent' can still provide 'assent' (agreement)

What you do

Confidentiality

- Adolescents who are competent should receive confidential health care
  - Builds trust between the adolescent and healthcare provider
  - Improves the quality of health care
- **Example of confidentiality statement**. "Everything we discuss will be confidential — that means it stays between you and me. But we will have to tell someone else **if** someone is hurting you, you are hurting yourself, or you are hurting someone else. If I have to break confidentiality, we will do it together"

Mandatory reporting

- Important you understand laws regarding mandatory reporting in your state/territory
- Mandatory to report adolescent at risk of
  - Suicide, homicide, serious harm to self or others
  - Sexual, physical or emotional abuse, neglect, exposure to violence
    - In NT, mandatory to report 14–15 year old if sexually active with someone with more than 2 year age difference, even if consent

Adult support

- Competent young people can access health care independently, but great value in having adult involved in their care
- Respect young person's right to confidential health care, but support them to identify competent adult to discuss their health with, eg parent, other family member, ATSIHP or AHW, trusted adult in community
  - Sensitive, transparent negotiations around finding right support person

Normal temperature range

- **Do not** use tympanic thermometer in children under 2, or people with hole in eardrum

Table 5.2: Normal temperature ranges

How taken	Normal temp (°C)
Mouth (oral)	36.5–37.5
Under arm (axillary)	36.0–37.0
Rectal	37.0–37.8
Ear (tympanic)	36.8–37.8

Respiratory rate (RR) and heart rate (pulse)

- Listen to heart sounds in same places as you do an ECG
- If heart sounds unusual or different from other children or adults
  - Get colleague to check
  - Check notes to see if detected before. If new — refer for assessment

Table 5.3: Respiratory rate and heart rate by age

Age of patient	Respiratory rate range (breaths/min)	Heart rate range (beats/min)
Newborn	35–60	120–160
3 months	30–50	110–150
6 months		
1 year	20–40	
2 years	20–30	110–140
4 years	20–25	110–120
6 years		
8 years		80–120
10 years		60–100 (Pregnant 80–110)
12 years	16–20	
14 years		
17 years and over		

Taking BP reading — adults

Attention

- To measure BP accurately, must use right sized cuff
  - Depends on length and width (circumference) of upper arm. Inflatable air bladder in cuff must have
    - Width at least 40% of arm circumference
    - Length at least 80% of arm circumference — almost long enough to go all the way around arm
- Diastolic (last sound you hear) reading is taken from time **sound disappears** — not when it becomes muffled
- Best if person
  - Has not smoked or drunk tea, coffee, caffeine soft drinks for 30 minutes
  - Has been sitting quietly for at least 10 minutes
- If part of cardiovascular examination or no previous recording — check BP on both arms. Note difference, if any
- **Do not** check BP on arm with AV fistula

Normal range of BP in adults varies depending on gender, age, fitness level etc. As a general principle

- Systolic pressure less than 130mmHg
- Diastolic pressure less than 80mmHg

What you do

- Choose right sized cuff for person's arm
- Sit person comfortably with arm resting on table or pillow, just above level of their waist
- Make sure air bladder is flat, fixed firmly, right over artery in upper arm
- Make sure stethoscope bell is put right over brachial artery in elbow crease
- Make sure manometer/mercury needle level on zero when you start to inflate cuff
- If you can't hear systolic or diastolic sounds the first time — make sure you let all the air out of cuff, **wait a minute** before trying again

Taking BP reading — children

Attention

- Try to take BP when child content. If child upset — may need to repeat when settled
- Cuff needs to cover ⅔ of child's upper arm. If cuff too narrow or too wide — reading may be wrong

Remember: Diastolic reading taken at **muffling of sounds** — not when they disappear (as for adults).

What you do

- Follow same general principles as for adults
- Diagnosis of high BP needs BP to be high on more than 1 occasion

Table 5.4: BP — girls under 18 years (percentiles)

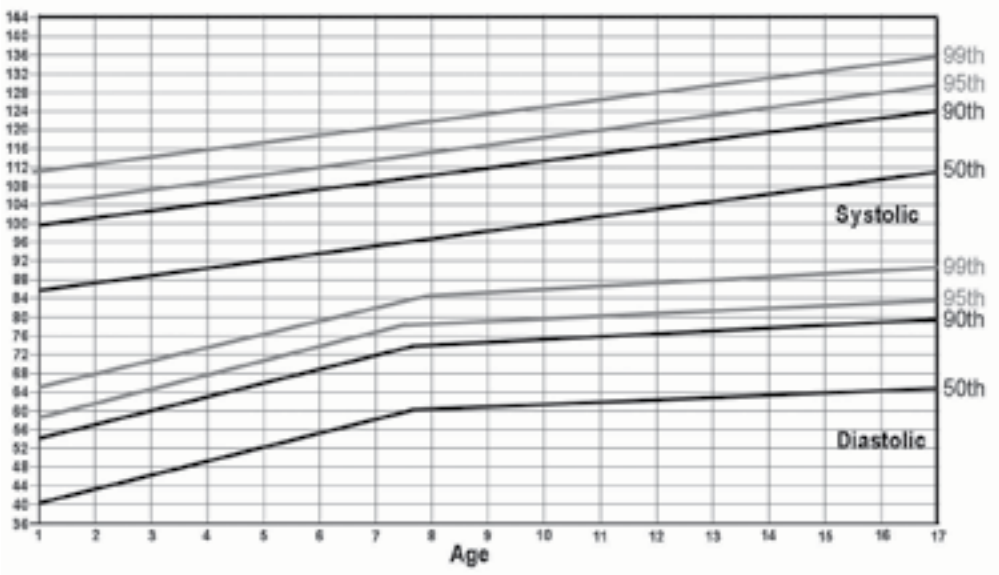
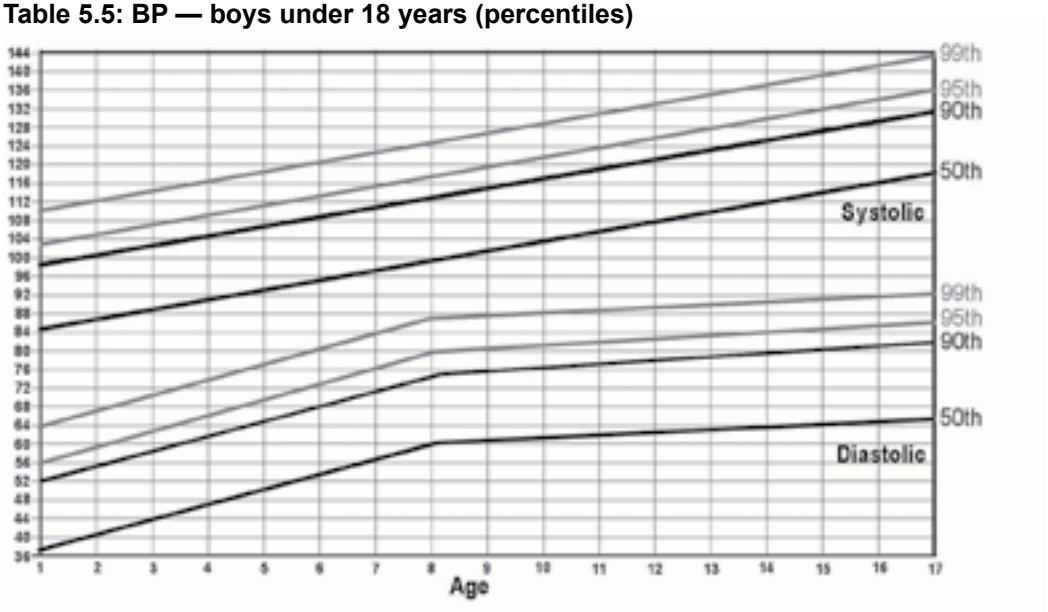


Table 5.5: BP — boys under 18 years (percentiles)



Charts from Centres for Disease Control and Prevention, United States (http://www.cdc.gov).

- **BP depends on height** — percentile charts assume child on 50th percentile for height
  - Adjust target for very short or very tall children
  - Subtract 5mmHg for children on the 5th percentile height-for-age
  - Add 5mmHg for children on 95th percentile height-for-age

Calculating Body Mass Index (BMI)

Use Tables 5.6, 5.7 (*p130*) 5.8, 5.9 (*p131*) to work out healthy weight range for adults, young people and children under 20 years.

What you need

- Correctly calibrated standing scales
- Something to measure height accurately, eg stadiometer

What you do

- Weigh person — record in file notes at each visit
- Measure height — measure and record only once for adults

Children

- Calculate BMI
  - Weight (kg) ÷ height (m)^2
  - For example — 22kg ÷ (1.1 x 1.1)m = 22 ÷ 1.21 = 18
- Plot BMI on chart by age and gender
  - Below 3rd percentile for age and gender — underweight
  - Above 85th percentile for age and gender — overweight (5–19 years), risk of overweight (0–5 years)
  - Above 97th percentile for age and gender — obese (5–19 years), overweight or obese (0–5 years)
- *OR* Use WHO Anthro calculator http://www.who.int/childgrowth/software/en

Adults

- Calculate BMI
  - Weight (kg) ÷ height (m)^2
  - For example — 82kg ÷ (1.63 x 1.63)m = 82 ÷ 2.66 = 30.83
  - *OR* See Table 5.10 (*p132*)

Note: Also measure waist (*p132*). Can have normal BMI but still have an unhealthy pot belly, or have high BMI because of muscular build.

Table 5.6: BMI-for-age — girls 0–5 years (percentiles)

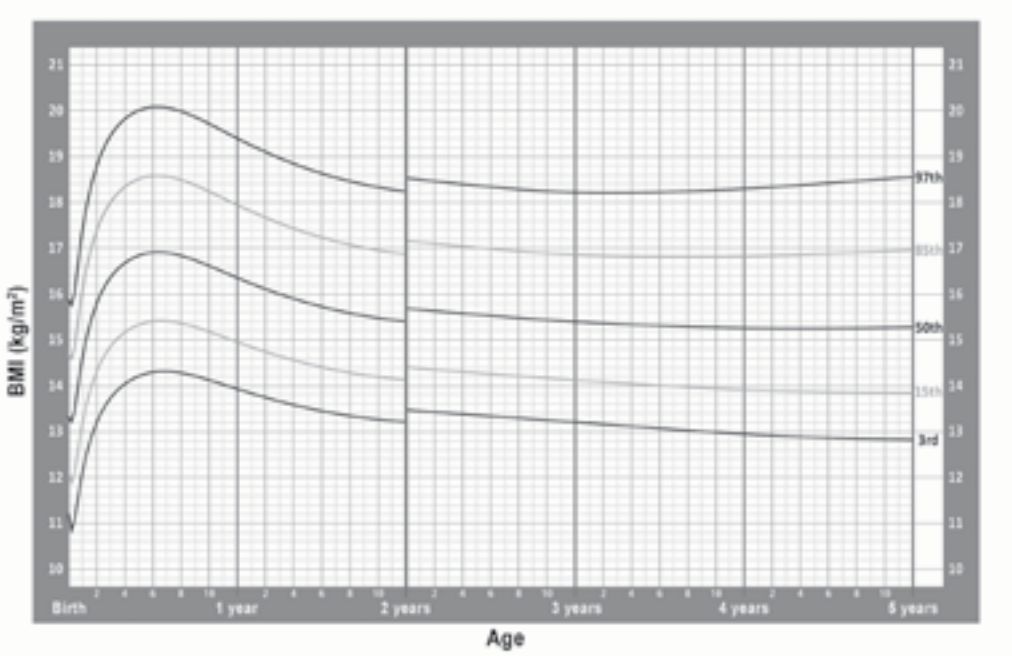
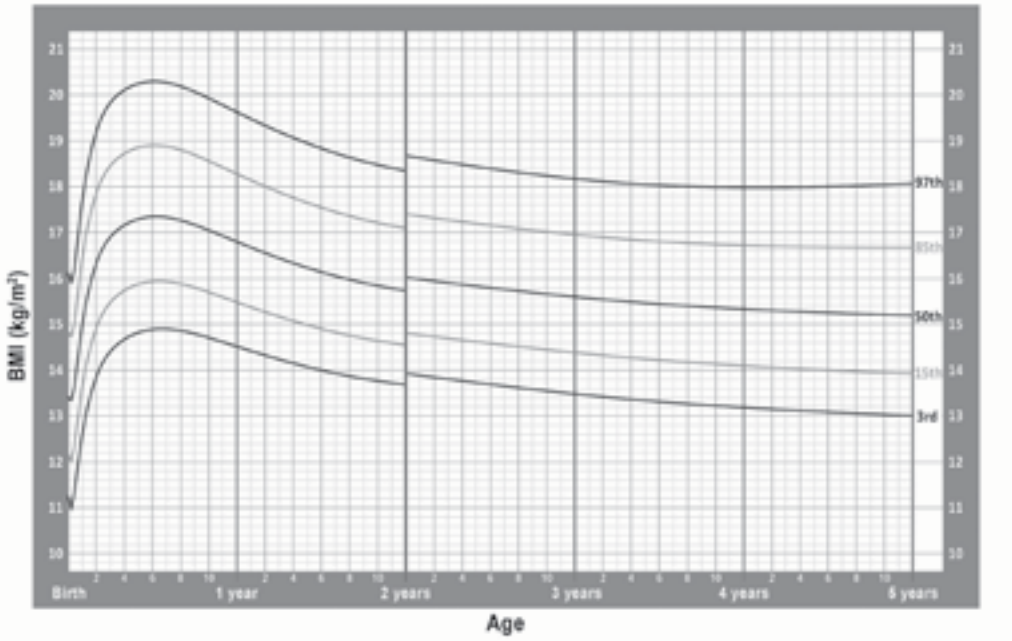


Table 5.7: BMI-for-age — boys 0–5 years (percentiles)



Charts from WHO Child Growth Standards, 2009. (http://www.who.int/childgrowth/standards/en).

Table 5.8: BMI-for-age — girls 5–19 years (percentiles)

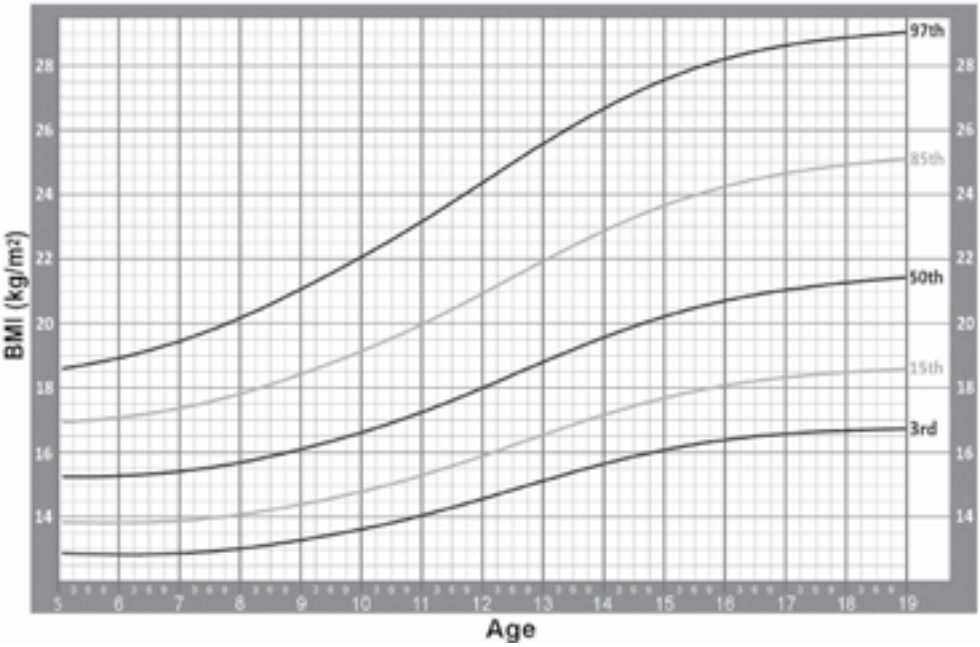
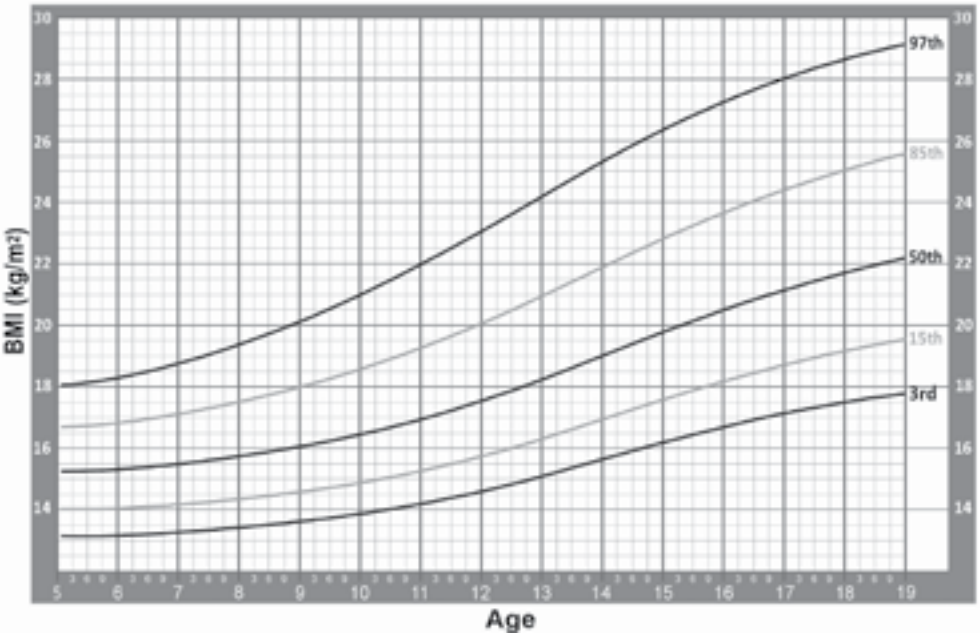
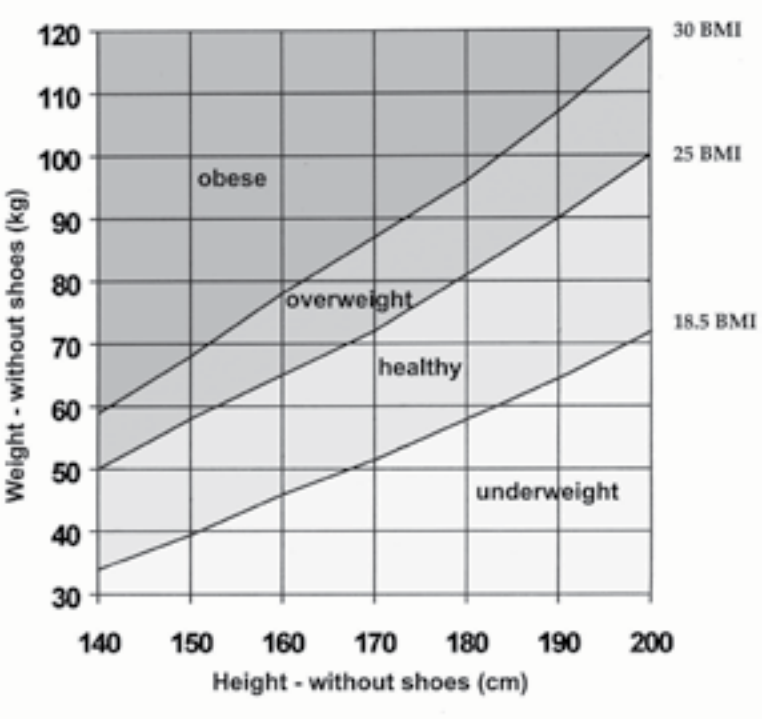


Table 5.9: BMI-for-age — boys 5–19 years (percentiles)



Charts from WHO Growth Reference 5–19 years, 2007. (http://www.who.int/growthref/en).

Table 5.10: BMI for men and women over 18 years



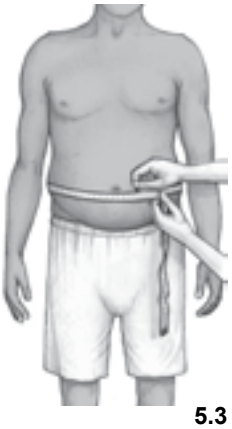
Measuring waist

Attention

- Large waist measurement associated with increased risk of some cancers, heart disease, type 2 diabetes

- **Increased risk** — waist more than 94cm men, 80cm women
- **Greatly increased risk** — waist more than 102cm men, 88cm women

- Waist measurement should be half (or less than half) of height measurement, eg man who is 180cm tall should have waist measurement of 90cm or less
- Hips should be bigger than waist, but not always the case



5.3

What you do

- Put tape between lowest rib and top of hipbone, roughly in line with belly button — F 5.3
- Make sure tape is snug, without pressing into skin. Keep it even, don't let it slope down on one side
- Ask person to breathe out normally
- Measure directly against skin

Recording in the file notes

These are principles only. Always check and use local documentation style and system already in place.

Attention

- Patient file notes must always be clear and complete. Written documents must be signed and dated. Electronic records have inbuilt signatures. ***Remember:*** They are **legal documents** and may be needed later
- **Accurate records** make sure you and your colleagues can properly and safely care for patients. Encourage sharing of best practice within remote healthcare team, across settings and services
- Make sure you have **right file notes** for **right person**
- Always record information in file notes **as soon as you can** after seeing person. Work as if you may not be there in the next few minutes/hours
- Always record full name and title of practitioners you consult with
- If you make a mistake or put entry in wrong record — cross it out neatly with a single line (it should still be clear). Explain your error and sign
- **Do not** suggest a number of diagnoses and then treat only one of them. Record plan for each, including health promotion
- **Do not** create confusion by using medical symbols or shorthand terms, eg '0 wheeze' should be 'no wheeze'

What you need

- Pen. Black ink is best — do not use red pen or pencil
- *OR* Access to electronic system used by service

What you do

- Use your clinical guidelines (record manual used), record what you do and don't find, consultations, person's experiences, your decisions and actions

Written file notes

- Record date and time of each consult
- Record notes in dot points, keep writing on page lines
- Use next empty line below last entry, **do not** leave any spaces
- If you need to add details later
  - Use new entry. Relate back to previous relevant entry by date/time
  - **Do not** write between lines of previous entry
- Finish entry with signature, your name printed in capital letters, role title (designation), eg RAN, RN, RM, ATSIHP, AHW, Dr

Example of documentation format — SOODA-F

26 year old man with no previous major illnesses, accidents or injuries, no allergies, walks into clinic.

S – Story (OLDCARTS): 15/4/2014, 4.30pm

- History of fever, cough, tight persistent dull pain on right side of chest when breathing in for past two days, made worse by exercise, not radiating anywhere else, sleeping on 2 pillows, had pneumonia 6 months ago
- Coughing green sputum since this morning
- Appetite OK, walked to clinic slowly
- Relieved by paracetamol

O – Ongoing health problems

- Type 2 diabetes, hypertension, taking prescription meds, no other drugs
- Non-smoker, occasional alcohol, works as mechanic, usually active
- Family history diabetes

O – Observations/clinical examination

- Usually fit young man, looks unwell, sitting up
- No clinical signs of dehydration. Teeth and throat OK, no nodes, sputum green, no blood. Crackles on right side, no wheeze heard. Heart sounds normal. Chest dull to percussion right side. Talking in sentences. Abdo soft
- T = 38.4, P = 110, RR = 26, BP = 130/90, oxygen sats on air 98%, BGL = 14.1, ECG normal, troponin normal

D – Diagnosis

- Moderate pneumonia
- Diabetes, hypertension

A – Actions/management plans

- *CARPA STM* treatment options discussed
- Decided 3 days of IM procaine 1.5g (3.3ml) — then review. 1st given 5.15pm
- Paracetamol 500mg x 2 tablets every 6 hours, if needed
- Bloods taken for chronic disease review
- Continue chronic medicines
- Family support good, advised rest and plenty of fluids

F – Follow-up

- Asked to return at any time if no improvement, or gets worse
- Otherwise to return at same time tomorrow for 2nd procaine injection, review BP, BGL, repeat ECG. Appointment card given
- Path results due 1 week. For chronic disease review post results