Section 3

Child health checks
Section 3: Child health checks

Alcohol, tobacco and other drugs (ATODs) - child
Birth information
Birth mother’s history
Body measurements - child
Clinical measurements - child
Continence and elimination - child
Developmental milestones
Ears and hearing - child
Environment
Eyes and vision - child
General appearance
Infant reflexes
Nutrition - child
Oral health - child
Physical activity - child
Social emotional wellbeing - child
Special considerations

320
326
330
336
342
348
352
358
368
374
380
386
390
394
400
404
410
Alcohol, tobacco and other drugs (ATODs) - child

- Diseases that are caused by the use of alcohol, tobacco or other drugs (ATODs) are responsible for high morbidity and mortality rates globally
- Preventing risky behaviour and promoting healthy choices in childhood can produce positive health outcomes in adulthood
- Asking ATODs questions provides an opportunity to identify risky behaviours and support children to make healthy lifestyle choices including low risk alcohol consumption and ceasing smoking and other drugs
- Reassure the child that what they say and any discussions are confidential
- Refer to Smoking cessation, page 44 and Alcohol reduction, page 4
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Child safety notification

- If there is a suspicion of harm or neglect consider a referral to child safety (see Appendix 2: Child safety reporting, page 498)

### Health check recommendations

All children opportunistically from the age of 8 years

#### 1. Procedure

- Ask the child the ATODs questions according to their age (see Table 1)
- The presence of parents and other authority figures may affect the answers children give. With consent and where appropriate, interview the child alone for honest answers
- Using the answers to guide you, identify if the child uses ATODs
- Provide brief intervention
- Determine if the client requires a referral and make a referral and place on a follow up and recall register if required

#### 2. Results

- The preferred response to the ATODs questions is ‘no’
- If the child answers ‘no’ provide positive feedback and reinforce their healthy lifestyle choice
- If the child answers ‘yes’ to any of the ATODs questions then provide brief intervention and make a referral to the appropriate service
### Table 1. Age related ATODs questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Explore</th>
</tr>
</thead>
</table>
| **Does the child smoke?** (cigarettes, cannabis, etc.) | • How often does the child smoke e.g. daily, weekly, sometimes?  
• How many cigarettes do they smoke?  
• When do they smoke?  
• Identify triggers e.g. when they’re stressed? at school? with friends and peers?  
• Where do they get their cigarettes from?  
• Why do they smoke?  
• How does it make them feel?  |
| **Does the child drink any alcohol?**          | • Clarify if the child drinks beer, wine, UDLs, premix or spirits  
• How often does the child drink e.g. daily, weekly, sometimes?  
• How many drinks do they have?  
• When do they drink?  
• Identify triggers e.g. when they’re stressed? at school? with friends and peers?  
• Where do they get their alcohol from?  
• Why do they drink?  
• How does it make them feel?  |
| **Does the child use any drugs or other substances?** | • Clarify other substances for the child e.g. inhalants, cannabis, crystal meth, etc.  
• How often does the child do drugs e.g. daily, weekly, sometimes?  
• How much drugs do they do?  
• When do they do drugs?  
• Identify triggers e.g. when they’re stressed? at school? with friends and peers?  
• Where do they get their drugs from?  
• Why do they do drugs?  
• How does it make them feel?  |

### 3. Brief intervention

- See [Alcohol reduction, page 4](#) and [Smoking cessation, page 44](#)

- Provide self help material for older children for any drug taking behaviour (see Resource 1)

- Offer an intensive, proactive cessation support program (see Resource 2)

- Avoid minimising their harmful behaviour and the negative health effects on the body

- Use a matrix of questions to motivate children to think critically about their ATODs taking behaviour (see Table 2)

- Ask the child if they are talking to, or have someone to talk to about their ATODs taking

- Encourage the child to talk to someone they feel safe with

- Encourage the child to seek help from the health service to give up their habit

- Provide resources (see Resources list)
Table 2. Motivational questions

<table>
<thead>
<tr>
<th>What are the good things about smoking, drinking alcohol or taking drugs?</th>
<th>What are the bad things about smoking, drinking alcohol or taking drugs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All my friends do it</td>
<td>• Costs a lot of money</td>
</tr>
<tr>
<td>• Makes me look cool</td>
<td>• Makes my chest feel tight, makes me short of breath</td>
</tr>
<tr>
<td>• Relaxes me</td>
<td>• Can’t run around, go diving or play sport because of breathlessness</td>
</tr>
<tr>
<td>• Gets me started</td>
<td>• Makes me cough</td>
</tr>
<tr>
<td>• Tastes good</td>
<td>• Gives me bad breath</td>
</tr>
<tr>
<td>• Keeps me awake</td>
<td>• Everyone bludges a smoke off me</td>
</tr>
<tr>
<td>• Gives me a boost</td>
<td>• Hate craving for a smoke</td>
</tr>
<tr>
<td></td>
<td>• Causes cancer and damages the body</td>
</tr>
<tr>
<td></td>
<td>• Trouble with family, school and police</td>
</tr>
</tbody>
</table>

What are the good things about STOPPING smoking, drinking alcohol or taking drugs?

- Won’t be breathless any more
- Will have more money
- Can save up for something special
- Will feel stronger

What are the bad things about STOPPING smoking, drinking alcohol or taking drugs?

- Friends may not want to play with me
- Not look cool

4. Referral

- If there are any concerns about the child’s social and emotional wellbeing referral must be made to the MO/NP and/or local SEWB services and/or a child safety notification made (see Appendix 2: Child safety reporting, page 498)

- If any harmful drug taking behaviours are identified, refer to an appropriate source (see Table 3)

- Offer immediate support by referring the child and parent to the MO/NP or mental health worker if you have urgent concerns for the child’s level of ATODs taking

5. Follow up

- Place the child on a recall register to monitor ATODs use and to ensure any referrals are actioned

- Provide the child or parent with details for the next scheduled follow up appointment
### Table 3. Referral options

<table>
<thead>
<tr>
<th>Queensland Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Health worker or registered nurse</td>
</tr>
<tr>
<td>• Your local Child Protection Liaison Officer or Safe Kids or Child Safety Services Regional Intake Services (see Appendix 2: Child safety reporting, page 498)</td>
</tr>
<tr>
<td>• Psychologist or social worker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cultural services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Aboriginal and Torres Strait Islander Legal Service (Qld) Ltd at <a href="http://www.atsils.com.au/">http://www.atsils.com.au/</a></td>
</tr>
<tr>
<td>• Minister/Pastor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• School nurse</td>
</tr>
<tr>
<td>• Headspace, the national youth mental health foundation available at <a href="http://www.headspace.org.au/">www.headspace.org.au/</a></td>
</tr>
<tr>
<td>• Quitline 137 848</td>
</tr>
<tr>
<td>• Royal Flying Doctor Service nurse or doctor</td>
</tr>
<tr>
<td>• School Principal or student guidance officer</td>
</tr>
</tbody>
</table>
6. References


7. Resources

5. Quit phone apps - My Quitbuddy: Provides a countdown for quitting and stats to track quitting progress, such as number of days smoke-free, cigarettes avoided and money saved; Quit for you - Quit for Two: Provides support and encouragement to help patients give up smoking. Both available for download from Apple iTunes and Google Play stores
8. OxyGen Fact sheets, curriculum resources and youth focused activities to support smoking prevention available at www.oxygen.org.au/
10. The National Cannabis Prevention and Information Centre. Information, stories and brief motivational interviewing activities targeted at young people as well as classroom activities for secondary school students available at https://ncpic.org.au/
Birth information

- Recording the child’s birth information allows clinicians to
  - maintain consistency with a child’s personal health history as they grow and develop
  - ensure any perinatal appointments or follow up are supported
- All information should be directly transcribed from a discharge summary or the child’s Personal Health Record (PHR) booklet (baby book)
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Health check recommendations

All children at first presentation

1. Procedure

- Transfer all postnatal discharge summary or PHR information as per Table 1. to the well baby health check form
- Ask the questions as per Table 1.
- Ensure any identified concerns, appointments or abnormalities have been referred or followed up, if not, refer and place the baby on a recall register

<table>
<thead>
<tr>
<th>Table 1. Birth information and questions for 1 - 6 weeks of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information and questions</strong></td>
</tr>
<tr>
<td>Discharge summary received</td>
</tr>
<tr>
<td>Birth weight</td>
</tr>
<tr>
<td>Birth length</td>
</tr>
<tr>
<td>Birth head circumference</td>
</tr>
<tr>
<td>Gestation</td>
</tr>
<tr>
<td>Apgar score 1 minute</td>
</tr>
<tr>
<td>Apgar score 5 minute</td>
</tr>
<tr>
<td>Method of delivery</td>
</tr>
<tr>
<td>Newborn hearing test attended</td>
</tr>
<tr>
<td>Immunisation status current</td>
</tr>
</tbody>
</table>
Table 1. Birth information and questions for 1 - 6 weeks of age (continued)

<table>
<thead>
<tr>
<th>Information and questions</th>
<th>Explore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guthrie test (heel prick) attended</td>
<td>• Test for</td>
</tr>
<tr>
<td></td>
<td>– phenylketonuria (PKU)</td>
</tr>
<tr>
<td></td>
<td>– primary congenital hypothyroidism (CH)</td>
</tr>
<tr>
<td></td>
<td>– cystic fibrosis (CF)</td>
</tr>
<tr>
<td>Was the baby treated for jaundice?</td>
<td>• Yellowing of the skin and mucous membranes</td>
</tr>
<tr>
<td>Did the baby have any breathing problems or convulsions?</td>
<td>• Yes or no</td>
</tr>
<tr>
<td>Was the baby ventilated</td>
<td>• Assisted breathing</td>
</tr>
<tr>
<td></td>
<td>• For how long?</td>
</tr>
</tbody>
</table>

2. Results

2.1 Gestation

• For baby born premature (< 37 weeks), be mindful that
  – the baby is at increased risk of vaccine preventable infections
  – the baby's immunisation schedule will alter
  – any body measurements will need to be corrected

2.2 Method of delivery

• The method of delivery will alert the clinician to certain considerations
• Caesarian wounds sometimes require wound care particularly in the overweight or obese
• Forceps delivery may leave marks on the sides of the baby’s head
• Vacuum extraction leaves the baby with a cone or large bump on the top of the head
• Any clinical concerns around method of delivery should always be referred to the MO or NP

2.3 Hearing test

• For abnormal hearing test results, ensure any appointments or referrals are acted upon

2.4 Guthrie test

• The birthing hospital will notify the parent of any abnormal test results and follow up appointments will be arranged

2.5 Jaundice

• Most jaundice is physiological and affects 50 - 60% of term babies, usually 48 - 72 hours after birth
• As blood cells and haemoglobin are constantly being produced and destroyed, bilirubin is released
• Before baby is born, bilirubin is removed through the placenta but, once born, the baby’s own liver removes the bilirubin
• This process can be difficult for a newborn’s liver and bilirubin may build up causing the skin and mucous membranes to turn yellow.
• As bilirubin increases, jaundice appears first on the face and head, then body, then finally the palms of the hands and soles of the feet.
• A simple test is to gently press your fingertip on the tip of the baby’s nose or forehead. When the finger is lifted the skin should be white if normal, or yellow if jaundice is present (see Table 2).
• Those with darker skin tones are harder to assess. Always refer if unsure.
• If bilirubin concentrations increase and jaundice continues, hearing problems or brain damage may result.
• Phototherapy (light therapy) and breastfeeding facilitates bilirubin elimination.
• Jaundice should disappear by 2 weeks of age.

Table 2. Kramar’s rule to estimating jaundice in babies

<table>
<thead>
<tr>
<th>Zone</th>
<th>Effect on child</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Limited to head and neck</td>
<td>Continue to encourage 3rd hourly breastfeeding and filtered light</td>
</tr>
<tr>
<td>2</td>
<td>Upper trunk, Baby may be tired</td>
<td>Observe</td>
</tr>
<tr>
<td>3</td>
<td>Lower trunk and thighs, Baby will be tired and listless</td>
<td>Continue to encourage 3rd hourly breastfeeding and filtered light</td>
</tr>
<tr>
<td>4</td>
<td>Over arms, legs and below knees, Baby will be tired and listless, Is at risk of cerebral palsy, deafness and brain damage</td>
<td>Refer urgently</td>
</tr>
<tr>
<td>5</td>
<td>Hands and feet, Baby will be tired and listless, Is at risk of cerebral palsy, deafness and brain damage</td>
<td></td>
</tr>
</tbody>
</table>

3. Brief intervention

• Provide the parent with anticipatory guidance with expectations in the coming months including:
  – breastfeeding or artificial feeding
  – safe sleeping and SIDS
  – milestones in the coming months
  – infant reflexes information
  – vision and hearing information
• Praise successes

4. Referral

• Ensure any birthing hospital appointments or referrals are acted upon by the parents for:
  – abnormal hearing test results
  – abnormal Guthrie test results
• Refer to the MO/NP for any
  – jaundice that is not resolving and continues to progress (see Table 2)
  – caesarian wounds that do not heal

5. Follow up

• Place the baby or parent on a recall register and continue to monitor to ensure any referrals are actioned
• Provide the parent with details for the next scheduled follow up appointment

6. References
Birth mother’s history

- Information regarding the mother’s health and lifestyle before, during and after pregnancy is useful to determine a baby’s health risk of future chronic illnesses and maternal attachment (bonding)

- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Child safety notification

- If there is a suspicion of harm or neglect consider a referral to child safety (see Appendix 2: Child safety reporting, page 498)

Health check recommendations

All mothers of newborn babies during first postnatal visit

1. Procedure

- Ask the mother the questions and be prepared to explore further as per Table 1.
- Provide the mother with brief intervention if required
- Determine if the mother requires a referral according to the answers and place on a follow up and recall register if required

Table 1. Questions to ask of a child’s mother at 1 - 6 weeks

<table>
<thead>
<tr>
<th>Questions</th>
<th>Explore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was this pregnancy planned?</td>
<td>• How does mum feel toward this child?</td>
</tr>
<tr>
<td></td>
<td>• What is the EPDS score? (see Resource 1)</td>
</tr>
<tr>
<td>Did the mother smoke during this pregnancy?</td>
<td>• For how long?</td>
</tr>
<tr>
<td></td>
<td>• How much?</td>
</tr>
<tr>
<td>Is the mother still smoking?</td>
<td>• How many?</td>
</tr>
<tr>
<td>Did the mother drink alcohol during this pregnancy?</td>
<td>• For how long?</td>
</tr>
<tr>
<td></td>
<td>• How much?</td>
</tr>
<tr>
<td>Did the mother use drugs/substances during pregnancy?</td>
<td>• For how long?</td>
</tr>
<tr>
<td></td>
<td>• How much?</td>
</tr>
<tr>
<td>Did the mother have diabetes during this pregnancy?</td>
<td>• Gestational or type 1 or 2?</td>
</tr>
<tr>
<td></td>
<td>• Was the diabetes well managed?</td>
</tr>
<tr>
<td></td>
<td>• Is the diabetes still well managed?</td>
</tr>
<tr>
<td>Did the mother have a complete antenatal STI screen?</td>
<td>• What were the results?</td>
</tr>
<tr>
<td></td>
<td>• Was successful treatment given?</td>
</tr>
<tr>
<td>How many children in the mother’s care?</td>
<td>• All own children?</td>
</tr>
<tr>
<td></td>
<td>• Any support?</td>
</tr>
<tr>
<td></td>
<td>• Finances?</td>
</tr>
</tbody>
</table>
2. Results

2.1 Unplanned pregnancy

- Identifying if a pregnancy is planned or unplanned can help determine whether a parent will have low or high levels of secure attachment (bonding) with their infant.
- Unplanned pregnancies are associated with higher levels of postnatal depression.

2.2 Smoking during pregnancy and breastfeeding

- Smoking during pregnancy is associated with an increased risk of:
  - miscarriage
  - preterm birth
  - low birth weight which makes babies more vulnerable to infections and birth defects such as cleft lip and cleft palate
  - babies small for gestational age
  - Sudden Infant Death Syndrome (SIDS)
- Smoking whilst breastfeeding or around a baby is associated with:
  - ear infections
  - SIDS
  - asthma
  - chest infections such as pneumonia and bronchitis
  - slow lung growth
  - coughing

2.3 Alcohol use during pregnancy and breastfeeding

- Drinking alcohol during pregnancy is associated with:
  - poor physical growth and mental development
  - weak sucking reflex
  - breathing difficulties at birth
  - muscle weakness
  - poor sleep patterns
  - behavioural problems
  - learning difficulties
  - increased risk of congenital abnormalities of the heart and kidneys
  - poor educational outcomes, social problems and alcoholism
  - children with fetal alcohol spectrum disorder (FASD)
- Alcohol passes from the mother to baby through breast milk and affects the baby’s developing brain and slows development.
- Alcohol can effect the way a parent cares for their baby or children such as:
  - dropping the baby
  - rolling on the baby when asleep
  - poor supervision of baby or child.
2.4 Drugs and substance use in pregnancy

- Illicit drug use during pregnancy is associated with neonatal withdrawals and death.

2.5 Diabetes during pregnancy

- Gestational diabetes mellitus (GDM) is associated with babies that
  - are large
  - have low blood glucose levels
  - have jaundice at birth
- Babies with these features may grow into children who are at higher risk of
  - obesity
  - hypertension
  - chronic heart disease and
  - diabetes

2.6 Antenatal STI screen

- Sexually transmitted infections (STIs) can be passed from the mother to the fetus during pregnancy and labour
- Antenatal STI screen includes
  - pap smear test
  - urine or swab PCR for chlamydia, gonorrhea and trichomoniasis
  - blood for Hepatitis B and C, HIV and syphilis
- See the current edition of the *Primary Clinical Care Manual (PCCM)*

2.7 Children in mother’s care

- Asking the mother the number of children in her care will alert the clinician to issues which could impact on the family such as those highlighted under the social emotional wellbeing section of the health checks

3. Brief intervention

3.1 Unplanned pregnancy

- Perform an Edinburgh Postnatal Depression Scale (EPDS) (see Resource 1)
- Observe parent child interaction and model bonding with the baby
- Take this opportunity to discuss contraception and safe sexual practices (see *Sexual and reproductive health, page 32*)

3.2 Parental and/or household smokers

- Do not expose a baby or child to cigarette smoke
- All smokers in the home to smoke outside
- After a cigarette, wash hands and change shirt prior to handling a baby due to smoke particles persisting on these surfaces
- Offer Quitline details (see Resource 2)
3.3 Mothers who drink alcohol

- There are no safe levels of alcohol consumption in pregnancy. If a mother plans to fall pregnant or is pregnant avoid alcohol completely.

- If a breastfeeding mother plans to drink, express breast milk to supply milk during and after the drinking session. Express the next 2 scheduled breastfeeding amounts and discard before re-establishing normal routine.

- If planning to drink alcohol arrange a carer to care for their children.

- See Alcohol reduction, page 4 for further resources.

- See Developmental delay in children, page 184 if child shows sign of FASD.

3.4 Mothers who use drugs and/or other substances

- If a mother plans to fall pregnant, avoid any illicit drugs and substances during pregnancy.

3.5 Women with diabetes during pregnancy

- Women who have diabetes and who become pregnant or develop gestational diabetes require close management, monitoring and follow up. See the current edition of the PCCM for management and intervention.

- See Diabetes type 2, page 196.

3.6 Postnatal sexual health

- Discuss contraception and safe sexual practices (see Sexual and reproductive health, page 32).

4. Referral

- If there are any concerns about the child’s social and emotional wellbeing referral must be made to the MO/NP and/or local SEWB services and/or a child safety notification made (see Appendix 2: Child safety reporting, page 498).

- For an unplanned child, an EDPS score > 13 or the parent child attachment (bonding) is poor then refer:
  - to a child health home visiting program e.g. Family CARE.
  - to a psychologist, mental health or social worker.
  - to an attachment based parenting program e.g. Circle of Security.
  - to a behavioural based parenting program e.g. Triple P.
  - to Parents Under Pressure (PUP) program.

- For smoking parents refer to:
  - Quitline 137848 (see Resource 2).
  - Smoking cessation, page 44.

- For mothers or parents who drank excessively antenatally or continue to drink excessively refer to:
  - ATODs (see Resource 4).
  - Alcohol reduction, page 4.
– Developmental delay in children, page 184

- For mothers or parents who use illicit drugs or drugs of dependance refer to ATODs (see Resource 4)
- For mother who had diabetes during pregnancy
  – see Diabetes type 2, page 196
  – refer to the current edition of the PCCM
- If the mother did not have an antenatal STI screen
  – refer the mother for, or perform a full STI screen
  – if positive for any STIs the baby will require screening (refer to the current edition of the PCCM)

5. Follow up

- Place the mother and child on a recall register and continue to monitor to ensure any referrals are actioned
- Provide the parent with details for the next scheduled follow up appointment

6. References


7. Resources

Section 3: Child health checks

Birth mother’s history (see any edition of Family Planning, No.5)
Body measurements - child

- Measuring a child’s weight, length or height, fontanelle and head circumference is a useful way to monitor expected growth and identify and act on any disruption to growth¹
- Calculating body mass index (BMI) in children is a useful way to identify underweight, overweight or obesity²
- The World Health Organisation (WHO) standard growth charts are used for those under 2 years of age and the Centre for Disease Control (CDC) Standard Child Growth charts used for those over 2 years of age
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Health check recommendations

All children should have their weight, length (or height) and head circumference (to 2 years) measured regularly as part of their routine child health checks
All Aboriginal and/or Torres Strait Islander children should continue to have body measurements annually from 4 years of age
All children should have their fontanelles palpated to 6 months of age then again at 18 months of age
All children should have their BMI calculated from 2 years of age
If a child is over 10 years of age with a BMI > 85th percentile for age and sex see Special considerations, page 410

1. Procedure

- Perform the measurement as per Table 1.
- Plot the measurements using the World Health Organisation (WHO) growth standards for under 2 years and the Centre for Disease Control (CDC) growth standards for over 2 years
  - length/height for age
  - weight for height
  - body mass index for age (see Resource 1)
- Allowance for gestational age for growth and development is made for children born prematurely. Children born
  - less than 37 weeks gestation have their age corrected for 1 year
  - less than 32 weeks gestation have their age corrected for 2 years
Determining corrected age
Corrected age = baby’s gestational age (how old the baby is since birth) minus the number of weeks premature e.g. a 4 month old baby (gestational age) minus 8 weeks (born at 32 weeks) = 2 months (corrected age)

- Using the measurements ascertain the child’s BMI from 2 years of age
- If any anomalies are identified, make a referral to an appropriate clinician
- Provide brief intervention if required
- Determine if the child requires a referral or further assessment according to the measurements (see Special considerations, page 410) and place on a follow up and recall register if required

### Table 1. Body measurements for children

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>• Weigh using baby scales or stand-on scales</td>
</tr>
<tr>
<td>Length or height</td>
<td>• Measure length using a measuring board or height using a stadiometer</td>
</tr>
<tr>
<td>Head circumference</td>
<td>• Measure using flexible tape measure</td>
</tr>
<tr>
<td>Fontanelle</td>
<td>• Palpate frontal and occipital (rear) fontanelles</td>
</tr>
<tr>
<td>BMI</td>
<td>• Over 2 years</td>
</tr>
<tr>
<td></td>
<td>• Calculate using formula (see 4. Body mass index)</td>
</tr>
</tbody>
</table>

1.1 Weighing children < 2 years of age
- Ensure the baby scales are accurate and regularly calibrated
- Bare weigh all babies to 2 years of age
- Zero the scales if required
- Record the weight to the nearest gram (gm)

1.2 Weighing children > 2 years of age
- Ensure the stand-on scales are accurate and regularly calibrated
- Ensure the child removes all heavy clothing, jewellery, shoes, belts, wallets and jumpers
- Zero scales if required
- Position the child in the centre of the scales so that their body weight is evenly distributed
- Record the weight to the nearest gram (gm)

1.3 Measuring children’s length < 2 years of age
- For accuracy, this measurement requires 2 people
• Ensure the measuring board is accurate. Flexible plastic portable measuring boards are less accurate
• Remove baby's shoes and any excessive clothing
• Lay baby supine (on their back) on the measuring board
• Ask the parent to place their hands on either side of the baby's head and hold the baby's crown (very top of the head) against the headboard
• Inform the parent that you will shortly extend the baby's legs and for them to ensure the crown stays against the headboard
• Ensure the shoulders and buttocks are flat against the measuring board
• Extend both the baby's legs at the hips keeping the knees flat against the board by adding a slight amount of traction (pull)
• Slide the foot plate level with the base of both the baby's feet
• The length is recorded to the nearest millimetre (mm)

1.4 Measuring children's height > 2 years of age
• Ensure the stadiometer is accurate
• Ensure the child removes their shoes
• Position the child so their head, back, buttocks and heels are against the wall
• Ask them to stand straight with weight distributed evenly, heels together, looking forward with arms hanging freely by their sides
• Pull the stadiometer measuring plate down to the top of their scalp
• Record the measurement to the nearest millimetre (mm)

1.5 Calculating body mass index (BMI)
• For over 2 years of age, calculate BMI using normal adult calculation then plot on BMI-for-age growth charts
• BMI is calculated as weight (in kilograms) divided by height (in metres) squared (kg/m²)
• BMI can also be calculated by plotting weight and height on a BMI chart or by using an online calculator (see Resource 2)

\[
\text{BMI} = \frac{\text{Weight in kilograms (kgs)}}{\text{Height in metres squared (m}^2\text{)}}
\]

1.6 Measuring children's head circumference < 2 years of age
• Use a flexible tape measure
• Position the child laying down, sitting up or in the parent's arms
• Remove any objects from the child's hair
• Identify the broadest section of the child's skull
• Place the measuring tape evenly and firmly around the child's head, ensuring that the broadest section is measured from the frontal skull to the occiput at the rear
• Measure to nearest millimetre (mm)
• Repeat measurement
• If the two measurements differ by more than 3 mm take a third measurement
• Record the average of the 2 largest measurements

1.7 Palpating fontanelles < 2 years of age
• Sit or lay the child on examination table or have the parent hold them in their arms
• Gently palpate the anterior (front) and posterior (rear) fontanelles for openness, size, whether they are bulging or are depressed

2. Results

2.1 Weight gain for children to 12 months
• A general guide for weight gain variation is
  – an initial weight loss (up to 10% of the birth weight) after birth
  – weight gains by 4 - 6 days of age
  – return to birth weight by 2 weeks of age
  – gains of 150 - 200 g/wk up to 3 months
  – gains of 100 - 150 g/wk from 3 - 6 months
  – gains of 70 - 90 g/wk up to 12 months

2.2 BMI for children > 2 years
• BMI categories for children using the CDC BMI-for-age standard growth charts are as follows
  – < 5th centile – underweight
  – 25th to 84th centile – healthy weight
  – 85th to 94th centile – overweight
  – > 95th centile – obese

2.3 Children's fontanelles
• In infants younger than 6 months, the anterior fontanelle diameter generally does not exceed 4 - 5 cm
• The anterior fontanelle should feel soft and slightly depressed and some pulsation may be felt
• In a markedly depressed fontanelle the cranial bones around the edge of the fontanelle can be easily palpated. This usually indicates dehydration
• A bulging fontanelle feels tense, sometimes palpated during prolonged crying
• A bulging fontanelle with marked pulsations may indicate increased intracranial pressure due to infection
• The fontanelles should get progressively smaller beyond 6 months of age
• The anterior fontanelle closes completely by 18 - 24 months of age and posterior fontanelle by about 2 months

3. Brief intervention
• Discuss with parents the risks of an elevated BMI in childhood and its association with obesity in adulthood, type 2 diabetes, hypertension, stroke and depression\textsuperscript{1,2}
• Provide diet and nutrition related resources (see Resources 3, 4, 5, 6, 7, 8 and 9)
• Refer to Poor growth in children, page 278
• Refer to Overweight and obesity in children, page 270
• Refer to Diet and nutrition, page 14
• Refer to Physical activity, page 26

4. Referral
• Urgently refer any child if their fontanelle is bulging or depressed
• Refer to a MO/NP, child health nurse or dietitian for further investigations if the child’s
  – measurements are above the 97th centile or below the 3rd centile
  – different body measurements vary by 2 or more centiles when compared with one another e.g. weight on the 10th centile and length on the 75th centile
  – records indicate the child has crossed 2 centiles in a downward or upward trajectory for any measurement
  – BMI result indicates underweight, overweight or obese classification
  – if the child’s fontanelles have marked bulging, depression, are too wide, close early or remain open longer than expected for age

5. Follow up
• Place the child on a recall register to monitor growth if required and to ensure any referrals are actioned
• Provide the parent or child with details for the next scheduled follow up appointment
6. References


7. Resources


5. The Australian Dietary Guidelines available at www.eatforhealth.gov.au


Clinical measurements - child

Breathing
• Undertaken to identify any underlying respiratory issues attributed to exposure to environmental irritants (e.g. cigarette smoke), chest infections or congenital abnormalities

Femoral pulses
• Undertaken to ascertain if there is sufficient arterial blood flow to the legs
• Insufficient flow may indicate aortic coarctation or narrowing of the aorta

Heart sounds\textsuperscript{1,2,3}
• Auscultating (listening to) the heart gathers information about heart valve function and anatomical defects including rheumatic heart disease (RHD)
• Aboriginal and Torres Strait Islander peoples have the highest rates of RHD in the world, often attributed to living conditions

Haemoglobin (Hb)\textsuperscript{2,3,4}
• Measured to identify iron deficiency anaemia due largely to: poor early nutrition, infestations of parasites and infections
• Anaemia is common in Aboriginal and Torres Strait Islander children particularly in those aged 6 - 30 months, low birth weight and premature infants and infants weaned to poor diets
• Adolescent girls have higher iron requirements peaking at puberty due to menses
• At a time of rapid brain growth and development in infants and young children, iron deficiency is associated with developmental delay of cognitive function and leads to poor psychomotor development
• Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Health check recommendations

<table>
<thead>
<tr>
<th>Femoral pulses in all children to 6 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breathing and heart sounds in all children to \textless{} 5 years of age</td>
</tr>
<tr>
<td>Annual haemoglobin in all Aboriginal and Torres Strait Islander children between 6 months and \textless{} 3 years of age, and all girls aged 10 to \textless{} 15 years of age</td>
</tr>
</tbody>
</table>

1. **Procedure**
• Ask the child or carer the clinical measurements questions or perform the appropriate measurement as per Table 1.
• The questions may provide answers requiring further clarity. Be prepared to explore answers further
• Identify if the child has measurements outside normal limits
• Provide brief intervention and resources if required
• Ensure the child is placed onto a follow up and recall register and monitor according to requirements
• Determine if the child requires a referral according to answers and measurement results, make a referral and place on a follow up and recall register if required

<table>
<thead>
<tr>
<th>Table 1. Clinical measurement questions for children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assess</strong></td>
</tr>
<tr>
<td>Femoral pulses</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Breathing</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Heart sounds</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Haemoglobin</td>
</tr>
</tbody>
</table>

1.1 Breathing procedure
• Observe the child’s chest rise and fall or using a stethoscope listen to the child’s breathing
• Count the respirations over 60 seconds

1.2 Femoral pulses procedure
• Position the child lying supine (on their back) with their inguinal (groin) area exposed
• Flex the hips and gently abduct the legs
• Place the tips of 2 or 3 fingers along the inguinal ligament midway between the iliac crest and the pubic symphysis
• Palpate both left and right femoral pulses simultaneously to make certain they are equal and strong
• Femoral pulses can be difficult to palpate and may take some time while repositioning fingers
• If the pulses can not be palpated refer to another clinician to assess

1.3 Heart sounds procedure
• A suitably trained clinician will check heart sounds (see Resource 1)
1.4 Haemoglobin (Hb) procedure

- Clinicians should refer to the product instructions to familiarise themselves with the type of haemoglobinometer they are using.
- Ensure the haemoglobinometer is calibrated and the cuvettes have not expired.
- Avoid squeezing or ‘milking’ the finger before or after puncture, this will give a false reading.

2. Results

2.1 Breathing result

- See Table 2. for respiratory rates for healthy children.
- The child should not get breathless at rest or walking short distances or wake at night breathless.
- It is normal to be breathless after running or playing provided the recovery to normal breathing occurs quickly.
- Be mindful that children can be exposed to irritants such as cigarette smoke, open fires and dust which will exacerbate noisy breathing, breathlessness, coughing and wheezing.
- Children who present with noisy breathing, wheezing, breathlessness and persistent coughing should be referred to the MO or NP.

| Table 2. Respiratory rates for healthy children<sup>3</sup> |
|-----------------|------------------|
| Age             | Breaths/minute   |
| < 3 months      | 30 - 60          |
| 3 months up to 1 year | 30 - 50         |
| 1 year up to 5 years | 20 - 40         |
| 5 years up to 12 years | 20 - 30        |
| 12 years and older | 10 - 25         |

2.2 Femoral pulses result

- Both pulses should be strong and equal.
- Femoral pulses should not be weak, unequal or absent.

2.3 Heart sounds result

- Heart sounds should be free of murmurs, gallops, clicks or other abnormal sounds.

2.4 Haemoglobin result

- The target haemoglobin level is > 110 g/L.
- Anaemia is indicated by haemoglobin levels outlined in Table 3.
Table 3. Haemoglobin levels that indicate anaemia in children

<table>
<thead>
<tr>
<th>Age</th>
<th>Haemoglobin g/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any age</td>
<td>&lt; 80</td>
</tr>
<tr>
<td>6 - 12 months</td>
<td>&lt; 105</td>
</tr>
<tr>
<td>over 12 months</td>
<td>&lt; 110</td>
</tr>
<tr>
<td>Girls over 12 years</td>
<td>&lt; 120</td>
</tr>
<tr>
<td>Boys over 12 years</td>
<td>&lt; 130</td>
</tr>
</tbody>
</table>

3. Brief intervention

- To improve haemoglobin levels children from 6 months of age should be encouraged to eat iron rich food as part of a nutritionally balanced diet including
  - baby cereals with added iron
  - baked beans
  - eggs
  - green leafy vegetables
  - peanut butter
  - lean minced beef, stewing beef, lamb, pork, turtle, kangaroo or dugong
  - liver
  - fish
  - chicken (no skin)

- Avoid foods low in iron or iron depleting foods such as
  - chicken nuggets, kabanasa, meat pies or sausage rolls
  - custard
  - cups of tea
  - cow’s milk, powdered milk or coconut milk for children under 1 year old

4. Referral

- Any child whose clinical measurements continue to be abnormal despite brief intervention require further investigation and should be referred to the MO/NP

- For any concerns about any child refer to a senior clinician

5. Follow up

- Place the child on a recall register to monitor any abnormal clinical measurements and to ensure any referrals are actioned

- Provide the child or carer with details for the next scheduled follow up appointment
6. References


2. NACCHO. National Guide to a Preventive Health Assessment for Aboriginal and Torres Strait Islander people. 2nd Edition. South Melbourne. The RACGP 2012


7. Resources

Continence and elimination - child

- Nocturnal enuresis (bed wetting) is common in Australia with approximately 1 in 5 children wetting the bed.
- 3 - 5% of children aged between 5 and 17 have a daytime enuresis problem.
- 1/3 of these children will also experience nocturnal enuresis.
- Daytime enuresis is more common in girls than boys.
- Nocturnal enuresis is more common in boys.
- These problems tend to improve with age but children do not necessarily grow out of it.
- About 1 - 3% of children experience faecal incontinence.
- For parents, the main concern is often the emotional and social effects on their children.
- Children can experience feelings of embarrassment that can lead to low self esteem.
- Other issues include sleep disruption, laundry workload and costs.
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot.

Child safety notification
- If there is a suspicion of harm or neglect consider a referral to child safety (see Appendix 2: Child safety reporting, page 498).

Health check recommendations

All children from birth to under 6 months, 4 years and 7 years of age

1. Procedure
- Ask the parent or child the age appropriate questions for the child (see Table 1).
- Children from birth to under 6 months are checked for elimination issues.
- 4 and 7 year olds are checked for continence.
- Children between 6 months and 3 years of age are not checked for continence or elimination issues as this age group are learning bladder and bowel control which is a normal developmental stage during this period.
- Determine if the child requires further assessment.
- Determine if the child requires a referral according to the results and make referral.
- Ensure child is placed onto a follow up and recall register and monitor according to requirements.
Table 1. Age appropriate continence questions for children

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Birth to &lt; 6 months of age</strong></td>
<td></td>
</tr>
</tbody>
</table>
| How many wet nappies does the baby have per day? | • Are the nappies full?  
• What colour is the urine?  
• Is the urine offensive to smell? |
| Is the parent worried about their baby's bowel movements? | • What is the consistency of the stools?  
• What colour? |
| **4 years and 7 years of age** | |
| Is the child independent in toileting? | • Handwashing? |
| Is the child incontinent of urine or faeces? | • When? Where?  
• What happens before and after the incident? |
| Does the child wet the bed? | • When?  
• Daytime sleep also? |

2. Results

• Be mindful that incontinence in children can also be attributed to urogenital infections and sexual abuse

• If a continence issue is identified provide brief intervention and make a referral to the appropriate source

3. Brief intervention

3.1 Birth to < 6 months of age

• It is normal for a fully breastfed child to not have a bowel motion for several days to a week

• Bottlefed children should have a dirty nappy daily to every few days

• Up to the age of 6 months babies should have 5 - 8 wet nappies each day, more for cloth nappies  
– the urine should be a pale straw colour  
– the smell should not be offensive

• Refer to Diet and nutrition, page 14

3.2 Children age 4 years and 7 years old

• Most children have gained daytime bladder control by the age of 4 years¹

• Nocturnal enuresis (bed wetting) is a very common problem in young children and is a condition that can continue into teen years  
– 20% of 5 year olds bedwet  
– 7% of 7 year olds bedwet  
– 1 - 2% of teenagers bedwet¹
4. Referral

- For any suspicion of incontinence due to any abuse refer to Appendix 2: Child safety reporting, page 498
- For a child up to the age of 6 months old refer to the MO/NP or child health nurse if
  - the urine colour is dark yellow or the baby is having < 5 wet nappies a day despite encouraging more fluids or breastfeeding
  - according to the parent the faeces is foul smelling, watery, discoloured (white, green, or bloodstained) or hard
- Refer to the child health nurse for children under 6 years of age for
  - infant elimination concerns
  - behaviour related continence and elimination concerns
- Refer to the MO/NP and continence services for children over 4 years of age if
  - the child who has been dry suddenly starts wetting at night
  - the wetting is frequent after school age
  - the wetting bothers the child or makes them upset or angry, or the child wants to become dry
  - a child over 4 years of age regularly wets during the day
  - a child has regular bowel accidents (skid marks or larger amounts of faeces) after the age of 4 years of age
  - toilet training has been successful then the child later starts to soil
- If you have any concerns about a child’s continence refer to the MO/NP
- If the child has chronic diarrhoea, acute gastroenteritis and dehydration, or constipation refer to the current edition of the Primary Clinical Care Manual (PCCM)

5. Follow up

- Place the child on a recall register to monitor continence and ensure that any referrals are actioned
- Provide the child or parent with details for the next scheduled follow up appointment
6. References

7. Resources
1. The Continence Foundation of Australia website with many resources available at www.continence.org.au
2. The Dry Night a resource for parents available at http://www.continence.org.au/resources.php/o1tA000001b1dyIAA/the-dry-night-a-guide-for-parents
4. The Continence Foundation of Australia Victorian Branch website available at www.continencevictoria.org.au
6. ERIC - every child has the right to go website available at www.eric.org.uk
Developmental milestones

• Developmental milestones are a set of age-specific tasks that most children can do at a certain age range
• Milestones are used to check how children are developing
• The age at which a normally developing child reaches milestones can vary
• Child development refers to how a child becomes able to do more complex things as they get older
• Playing with, talking to, stimulating, and reading to children assists child development
• Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Note

• This health check is not meant as a thorough developmental screen rather a check to identify if a thorough developmental screen is required
• If there is any concern or doubt about the child’s developmental milestones, refer early - do not wait

Health check recommendations

| All children under the age of 5 years |
| Within 3 months of a child under 5 years of age entering foster care |

1. Procedure

• Note the developmental milestone questions (see Table 1) and ascertain if the child has met the milestone by
  – asking the parent or carer
  – performing the assessment on the child or
  – observing the child’s interaction with the parent and environment
• Parents are often the best historians as to how their child is developing. Be mindful to listen to any concerns that a parent has in regards to their child
• If the child’s age falls between the age brackets, refer to the previous age bracket e.g. a 15 month old would be checked against the 12 month bracket
• Identify if the child does or does not achieve the milestone criteria
• Determine if the child requires a referral according to the criteria and place on a follow up and recall register if required
### Table 1. Age related developmental milestones\(^1,2\)

<table>
<thead>
<tr>
<th>Age</th>
<th>Social emotional</th>
<th>Communication</th>
<th>Fine motor and cognition</th>
<th>Gross motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months</td>
<td>• Smiles or squeals in response to people</td>
<td>• Starting to babble</td>
<td>• Reaching and holding toys</td>
<td>• Rolling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Recognises their name when called</td>
<td>• Hands not frequently clenched</td>
<td>• Holding head and shoulders up when on tummy</td>
</tr>
<tr>
<td>9 months</td>
<td>• Shares enjoyment with others using eye contact or facial expression</td>
<td>• Gesturing e.g. pointing, waving, showing</td>
<td>• Using 2 part babble e.g. mama, dada, gaga</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Recognises family names</td>
<td>• Holds and releases toys</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Using 2 part babble e.g. mama, dada, gaga</td>
<td>• Moves toys from one hand to another</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Holds and releases toys</td>
<td>• Moves e.g. creeping or crawling motion</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Moves e.g. creeping or crawling motion</td>
<td>• Bears weight on legs well when held upright</td>
<td></td>
</tr>
<tr>
<td>12 months</td>
<td>• Notices someone new</td>
<td>• Babbles phrases that sound like talking</td>
<td>• Majority of nutrition lumpy, soft solids</td>
<td>• Sits without support</td>
</tr>
<tr>
<td></td>
<td>• Plays early turn based games e.g. peekaboo</td>
<td>• Uses at least one word with meaning even if not pronounced correctly</td>
<td>• Able to chew solid food</td>
<td>• Moves e.g. creeping or crawling motion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Responds to familiar words</td>
<td>• Able to pick up small items using index finger and thumb</td>
<td>• Bears weight on legs well when held upright</td>
</tr>
</tbody>
</table>

These are definitive milestone cutoffs. Failing one or more criteria for a child’s age indicates a delay in development and requires a comprehensive developmental screen (see Resource 1)
Table 1. Age related developmental milestones (continued)\(^1,2\)

<table>
<thead>
<tr>
<th>18 months</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social emotional</strong></td>
<td>• Interacts by pointing to, showing or giving objects to others</td>
</tr>
</tbody>
</table>
| **Communication** | • Strangers can understand some of child’s speech  
  • Understands at least 2 familiar requests e.g. where is the ball?  
  • Uses words rather than gestures to communicate (around 5 - 20 real words) |
| **Fine motor and cognition** | • Holds or scribbles with a crayon  
  • Attempts to build a tower with blocks |
| **Gross motor** | • Attempts to walk without support  
  • Stands alone |

<table>
<thead>
<tr>
<th>2 years</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social emotional</strong></td>
<td>• Uses toys for their purpose e.g. cuddles a teddy rather than bangs, drops or throws toys</td>
</tr>
</tbody>
</table>
| **Communication** | • Strangers can understand half of child’s speech  
  • Follows simple 2 step instructions e.g. pick up the ball and give it to me  
  • Uses at least 50 words  
  • Uses phrases of 2 or more words e.g. push car |
| **Fine motor and cognition** | • Interested in self care skills e.g. feeding or dressing |
| **Gross motor** | • Able to run  
  • Able to use stairs holding on  
  • Able to throw a ball |

<table>
<thead>
<tr>
<th>3 years</th>
<th></th>
</tr>
</thead>
</table>
| **Social emotional** | • Interest in pretend play  
  • Notices and understands feelings in themselves and others e.g. happy or sad |
| **Communication** | • Strangers can understand most of child’s speech  
  • Uses simple sentences of 3 - 5 words e.g. big car go  
  • Interested in and responds to why, who, where, when and how questions |
| **Fine motor and cognition** | • Helps with self care e.g. feeding or dressing  
  • Manipulates small objects e.g. threading beads |
| **Gross motor** | • Runs well  
  • Walks up and down stairs  
  • Kicks and throws a ball  
  • Jumps with 2 feet together |

*These are definitive milestone cutoffs. Failing one or more criteria for a child’s age indicates a delay in development and requires a comprehensive developmental screen (see Resource 1)*
Table 1. Age related developmental milestones (continued)\(^1,2\)

<table>
<thead>
<tr>
<th>4 years</th>
<th>5 years and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social emotional</td>
<td>• Able and willing to play co-operatively</td>
</tr>
</tbody>
</table>
| Communication | • Strangers can understand all of child’s speech  
• Uses the words ‘and’, ‘like’, ‘because’ and ‘but’ to tell a long story or sing songs  
• Able to follow 3 step directions e.g. get the ball, bounce it, then give it to me |
| Fine motor and cognition | • Toilet trained by day  
• Able to draw lines and circles |
| Gross motor | • Pedals a tricycle  
• Catches, throws and kicks a ball  
• Able to balance well standing on one leg |

• Any milestone deficits in children over the age of 5 years will be identified in the school setting

These are definitive milestone cutoffs. Failing one or more criteria for a child’s age indicates a delay in development and requires a comprehensive developmental screen (see Resource 1)

A comprehensive developmental screen and urgent referral is required if at any age any of the following are present

• Any parental concerns
• Loose and floppy movements (low tone) or stiff and tense (high tone)
• Difference in strength, movement and tone between right and left sides of body
• Poor interaction with adults or other children
• Lack of response to sound or visual stimuli
• Significant loss of skills
• Not achieving indicated developmental milestones
• Lack of or limited eye contact

2. Results

• A fail in one or more criteria indicates a developmental delay and requires a full developmental screen undertaken by a suitably trained clinician using a screening tool such as
  – The Parental Evaluation of Developmental Status (PEDS) for 0 - 6 year olds
  – The Ages and Stages Questionnaire (ASQ) for 0 - 6 year olds (see Resource 1)
3. Brief intervention

- If a child is progressing well with their milestone development provide the parent with expected milestone resources and discuss as required (see Resource 3)
- Encourage parents to interact with their children including
  - reading
  - talking
  - physical play

4. Referral

- Referral is required at any age if there is
  - lack of or limited eye contact
  - strong parental concerns
  - loose and floppy movements (low tone) or stiff and tense (high tone)
  - difference in strength, movement and tone between right and left sides of body
  - poor interaction with adults or other children
  - lack of response to sound or visual stimuli
  - significant loss of skills
  - not achieving indicated developmental milestones
- For delays in the
  - social emotional domain refer to a speech pathologist and/or occupational therapist
  - communication domain refer to a speech pathologist
  - fine motor and cognition refer to a physiotherapist and/or occupational therapist
  - gross motor refer to a physiotherapist and/or occupational therapist

5. Follow up

- Place the child on a recall register to monitor the child’s developmental progress and to ensure any referrals are actioned
- Provide the parent with details for the next scheduled follow up appointment

6. References


7. Resources

Ears and hearing - child

- Untreated ear disease can cause long term hearing loss\(^1\)
- Hearing loss can affect a child’s
  - speech and language
  - ability to play and develop socially and emotionally
  - ability to learn and have positive educational outcomes
- In later life hearing loss can be associated with poor
  - school completion rates
  - health literacy levels
  - vocational and job prospects
- Up to 91% of Aboriginal and Torres Strait Islander children in remote communities present with chronic suppurative otitis media (CSOM)\(^1\)
- Assessing ears and hearing in children less than 4 years of age by otoscopy and tympanometry should be performed by an appropriately trained clinician
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Health check recommendations

All children have a hearing screen at birth. Any audiology results and follow up will be documented in the child’s Personal Health Record booklet

All children if clinically indicated

Aboriginal and Torres Strait Islander children annually

All 5 and 12 year olds

All 5 to < 15 year olds who answer ‘yes’ to assessment criteria below

1. Procedure

- Introduce the questions by asking about any concerns the parent or carer may have about their child’s hearing
- Ask the questions according to the child’s age (see Table 1) and perform the corresponding procedure
- Determine if the child requires a referral according to the criteria and place on a follow up and recall register if required
### Table 1. Age appropriate questions and procedures for child ears and hearing

<table>
<thead>
<tr>
<th>Questions</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 - 6 weeks</strong></td>
<td></td>
</tr>
<tr>
<td>Is the baby startled by loud noises such as a loud clap?</td>
<td>• Yes or no</td>
</tr>
<tr>
<td>Has the baby been free of ear infections or discharge?</td>
<td>• Tummy time, rolling, crawling, cruising, etc.</td>
</tr>
<tr>
<td><strong>2 - 12 months</strong></td>
<td></td>
</tr>
<tr>
<td>Does the parent think their baby/child can hear them?</td>
<td>• Otoscopy</td>
</tr>
<tr>
<td>Does the baby/child turn towards sound or voices?</td>
<td>• plus tympanometry for 6 - 12 month olds</td>
</tr>
<tr>
<td>Is the parent happy with their baby's/child's hearing?</td>
<td></td>
</tr>
<tr>
<td>Has the baby/child been free of ear infections or discharge?</td>
<td></td>
</tr>
<tr>
<td><strong>18 months - &lt; 5 years</strong></td>
<td></td>
</tr>
<tr>
<td>As above plus</td>
<td>• Otoscopy and tympanometry</td>
</tr>
<tr>
<td>Does the parent think their child's speech and language is good?</td>
<td>• plus audiometry for 4 year olds</td>
</tr>
<tr>
<td><strong>5 and 12 years of age or Aboriginal and/or Torres Strait Islander annually</strong></td>
<td>• Otoscopy, tympanometry and audiometry</td>
</tr>
<tr>
<td><strong>For all other children between 5 and &lt; 15 years</strong></td>
<td></td>
</tr>
<tr>
<td>Family history of genetic hearing loss?</td>
<td>• If yes to any questions then perform otoscopy, tympanometry and audiometry</td>
</tr>
<tr>
<td>History of frequent ear, nose and throat infections?</td>
<td></td>
</tr>
<tr>
<td>Speaks in loud or monotone voice?</td>
<td></td>
</tr>
<tr>
<td>Does not respond to name?</td>
<td></td>
</tr>
<tr>
<td>Watches others continuously?</td>
<td></td>
</tr>
<tr>
<td>Asks for statements to be repeated?</td>
<td></td>
</tr>
<tr>
<td>Withdraws in a group?</td>
<td></td>
</tr>
<tr>
<td>Has learning problems in class?</td>
<td></td>
</tr>
<tr>
<td>Has disruptive and impulsive behaviour?</td>
<td></td>
</tr>
<tr>
<td>Teacher reports hearing difficulty?</td>
<td></td>
</tr>
<tr>
<td>Parent /carer reports hearing difficulty?</td>
<td></td>
</tr>
</tbody>
</table>

### 2. Otoscopy
- Otoscopy is the visual examination of the ear canal and ear drum
- If the child has ear pain or notable discharge refer to the MO/NP or to the current edition of the *Primary Clinical Care Manual* (PCCM)
2.1 Steps for performing otoscopy

• Explain the procedure to the parent and/or child
• Sit the child and position yourself at the level of the ear
• Select the correct sized speculum (smaller for younger children)
• Ask the child to hold their head still. For an infant, ask the parent to sit the infant on their lap and gently brace the infant’s head against their chest
• Observe the mastoid (the bone behind the ear) and the area under the ear for infection, swelling or tenderness
• Check the pinna for size, shape, colour or lesions
• Check the brightness of the otoscope light against your hand and change batteries if required
• Tilt the child’s head slightly towards their opposite shoulder
• Straighten the child’s ear canal by gently pulling the pinna back
• Hold the otoscope in the pencil grip position
• Use your fingers against the child’s head to anchor the otoscope in case the child suddenly moves
• Slowly insert the tip of the speculum into the ear canal
• Looking through the eyepiece observe the ear canal for
  – discharge
  – redness/swelling
  – fungal infections
  – lumps or bony growths
  – foreign bodies (excluding grommets)
  – wax
  – fluid
• If there is discharge, stop and refer to Figure 2.
• Inspect the tympanic membrane (eardrum) (see Figure 1)
  – colour
    – normal is transparent and shiny
    – dull or opaque may represent fluid behind tympanic membrane
  – cone of light (reflection)
    – right ear at 5 o’clock and left ear at 7 o’clock
    – reflections elsewhere indicates bulging
  – the handle of the malleus
  – perforations
• Repeat the procedure for the other ear
2.2 Otoscopy results

- Refer to Figure 2.

**Figure 1. Visual representation of the eardrums**

**Figure 2. Referral and review process for otoscopy**
3. Tympanometry

- Tympanometry is a test of middle ear function and measures
  - ear canal volume (ECV) (normal between 0.5 and 1.5 cm$^3$)
  - middle ear pressure (normal between -200 and +50 daPa) and
  - middle ear compliance or movement (normal between 0.2 and 1.5 cm$^3$)
- If there is discharge from ears do not proceed and refer to the MO/NP or to the current edition of the PCCM

3.1 Steps for performing tympanometry

- Ensure tympanometer is calibrated (see device instructions for details)
- Remove any used probe tips from the tympanometer
- Use a clean probe tip for each child
- To make a clean seal, choose the correct sized probe tip according to ear canal shape and size
- Sit the child and position yourself at the level of the ear
- Instruct the child to relax and to not speak or move. For an infant, ask the parent to sit the infant on their lap and gently brace the infant’s head against their chest
- Starting with the right ear first, straighten the child’s ear canal by gently pulling the pinna back
- Push the probe tip gently into the right ear canal and form a seal
- Hold the probe tip still in the ear canal while the test runs
- Note and store the result
- Repeat the steps for the left ear
- Remove the probe tip and clean as per local cleaning guidelines
- Save and print the tympanogram

3.2 A leak or blockage

- A leak or blockage can occur for many reasons
  - clogged probe tip
  - probe tip too large or small
  - head movements or swallowing
  - probe tip against the ear canal wall
  - debris, foreign body or wax in ear canal
  - discharging ear
- To rectify try
  - a different sized probe tip
  - cleaning probe tip
  - reposition the probe tip in the ear canal
3.3 Tympanometry results

- Review the tympanometry trace types below then refer to Figure 3.

**Type A normal peak**
- Ear canal volume (ECV) = 1 cm³ (0.5 - 1.5 is normal)
- Middle ear movement (compliance) = 0.9 cm³ (0.2 - 1.5 is normal)
- Middle ear pressure = 0 daPa (-200 to +50 is normal)

**Type B**
- No middle ear movement
- No middle ear pressure

**Possible causes**
- Usually otitis media
- Otosclerosis (stiff middle ear bones due to bony growths)
- Badly scarred eardrum
- Eardrum perforation (hole)
- Grommet
- Ear canal blockage
- Wax

**Type C peak to left**
- Normal ear canal volume
- Normal middle ear movement
- Negative middle ear pressure

**Possible causes**
- Eustachian tube not working properly
- URTI
- Fluid moving into middle ear
4. Audiometry

- Audiometry measures the ability of the ear to
  - detect the pitch of a sound as hertz (Hz)
  - detect the loudness of a sound as decibels (dB)
- Audiometry is a simple and quick test to identify those children at risk of hearing problems requiring further assessment

4.1 Steps for performing audiometry

- Ensure testing is in a quiet room. If a quiet room is not available, do not continue with audiometry screening
- Ensure audiometer is calibrated (see device instructions for details)
- Explain the procedure to the child
- Instruct the younger child to place a coin or rock into a container when they hear a sound or instruct the older child to raise their hand
- Sit the child facing away from you and the audiometer to avoid any visual prompts e.g. the tester pushing buttons or looking up at them
- Position the headphones on the child
- Place the correctly identified ear muff over the appropriate side ear
- Check the headphone position to provide a snug seal, ensuring they are free of hair or clips
- Set hertz (Hz) dial to 4000 Hz
- Set decibel (dB) to 50 dB
- Do a test sound with the child and repeat until they respond comfortably
- If child can hear the sound and understands the procedure then begin testing
- Ensure the sounds are presented at irregular intervals so the child does not anticipate them
- Test one ear first
- If the child indicates they can hear the sound then reduce sound to 35 dB and repeat
- If the child indicates they can hear the sound then reduce to 25 dB and repeat
- If the child does not respond then increase by 5 dB stages until the child responds
- Do not go above 80 dB
- Record the result that the child responds to twice at the lowest perceived dB
- Do the same for the other ear
- Repeat the procedure for both ears at 2000 Hz and 1000 Hz
- To pass, the child needs to respond twice at 25 dB at 1000 Hz, 2000 Hz and 4000 Hz
4.2 Audiometry results

- Ascertain whether child passes or fails audiometry then refer to Figure 3.

**Figure 3. Referral and review process for tympanometry and audiometry results**

5. Brief intervention

- Discuss
  - nose blowing
  - hand washing
  - avoiding prop feeding a child
  - avoiding feeding a child to sleep
  - avoiding leaving bottles in a child’s cot
  - avoiding loud noises (especially electronic devices with earbud speakers)
  - avoiding cigarette smoke
  - only swimming in running water or swimming pools
  - eating healthy foods
  - avoid putting anything in child’s ears (including cotton buds)²
6. Referral

- Make a referral as per Figure 2. and Figure 3.
- If you have any concerns about a child’s ability to hear refer to the MO or NP
- If the child has ear pain or discharge, manage as per the current edition of the PCCM

7. Follow up

- Place the child on a recall register to monitor and ensure any referrals have been actioned
- Provide the child, parent or carer with details for the next scheduled follow up appointment

8. References

2. Queensland Government (2013) 7 steps to healthy ears. Deadly ears brochure

9. Resources

Section 3: Child health checks

- EARS AND HEARING - CHILD
Environment

- Exposure to environmental hazards such as: pollutants and chemicals, cigarette smoke, overcrowding, unsafe and unhygienic living arrangements and unsafe sleeping arrangements, all influence health

- Avoiding these environmental hazards are vitally important to prevent childhood injury and illness

- The clinician can offer brief intervention that promotes positive learning and development environments where children are safe to play, explore and learn

- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Note

- For information regarding domestic violence see Social emotional wellbeing - child, page 404

Child safety notification

- If there is a suspicion of harm or neglect make a referral to child safety (see Appendix 2: Child safety reporting, page 498)

Health check recommendations

All Aboriginal and Torres Strait Islander children at every health check

All children < 15 years of age opportunistically

1. Procedure

- Ask the age appropriate questions as per Table 1.

- Provide brief intervention if the parent answers other than the ideal

- Be prepared to explore the issues further and/or refer for further support

- If required place on a recall and follow up register
### 2. Results

#### 2.1 Exposure to cigarette smoke\(^1\)\(^2\)

- When exposed to secondhand smoke children experience higher rates of
  - respiratory infections
  - middle ear infections
  - meningococcal infections
  - asthma
  - sudden infant death syndrome
- Occasional exposure to secondhand cigarette smoke, even on smoker’s clothing, is harmful, especially to children

#### 2.2 Overcrowding\(^3\)\(^4\)

- Overcrowding of dwellings increases the stress on kitchens, bathrooms, laundry facilities and sewerage systems
- In turn, this increases the risks of poor personal hygiene, places unnecessary strain on interpersonal relationships and exposes the family to domestic violence
- Aboriginal and/or Torres Strait Islander children are 5 times more likely to live in overcrowded housing

#### 2.3 Sudden unexpected deaths in infancy (SUDI) and sudden infant death syndrome (SIDS)\(^5\)

- Between 1989 and 2012 there were 4,571 sudden unexpected deaths in infancy (including SIDS)
- The rate decreased by 80% within this same time frame with an estimated 7,990 lives saved directly attributed to risk reduction campaigns

---

**Table 1. Age related environment questions**

<table>
<thead>
<tr>
<th>Question</th>
<th>Explore</th>
</tr>
</thead>
<tbody>
<tr>
<td>From birth to under 18 months</td>
<td></td>
</tr>
<tr>
<td>Where does the infant sleep?</td>
<td>• If permitted view sleeping area or cot</td>
</tr>
<tr>
<td></td>
<td>• Assess for safety</td>
</tr>
<tr>
<td>Is the infant placed on their back to sleep?</td>
<td>• Ask</td>
</tr>
<tr>
<td>For all children</td>
<td></td>
</tr>
<tr>
<td>Is the child exposed to cigarette smoke?</td>
<td>• Are there smokers living with the child?</td>
</tr>
<tr>
<td></td>
<td>• How many?</td>
</tr>
<tr>
<td></td>
<td>• Where do they smoke?</td>
</tr>
<tr>
<td>How many people live in the house?</td>
<td>• The number of bedrooms?</td>
</tr>
<tr>
<td></td>
<td>• Bedding arrangements</td>
</tr>
<tr>
<td></td>
<td>• Observe for safety and hygiene concerns</td>
</tr>
</tbody>
</table>
2.4 Injury prevention

- Falls, drowning, poisoning, road safety incidents, burns and scalds are amongst the leading causes of hospital admission, death and disability for Australia’s children
- Injury is preventable, yet there are approximately 250 deaths and more than 50,000 child hospitalisations due to injury each year in Australia

3. Brief intervention

3.1 Exposure to cigarette smoke

- Babies and children should not, at any time, be exposed to secondhand smoke from smokers including in the house or in a confined space such as a motor vehicle

3.2 Overcrowding

- Discuss basic hygiene principles with the parent and child including:
  - washing and drying hands after toileting, changing nappies and before food preparation and eating
  - the importance of coughing and sneezing into arm rather than hands and washing hands after blowing or wiping nose
  - the importance of oral hygiene and brushing teeth at least twice daily
  - not sharing toothbrushes and razors
  - regularly washing bed linen and clothes
  - regularly removing garbage away from living areas
  - ensuring pets are kept separate from living areas, especially where there is food preparation

3.3 SUDI, SIDS and a safe sleeping environment

- Providing safe sleeping information and strategies (see Resource 1)
- To reduce the risk of SIDS
  - sleep baby on the back from birth
  - sleep baby with head and face uncovered
  - provide a safe cot, safe mattress, safe bedding and safe sleeping place
  - sleep baby in their own cot or bassinette in the same room as the parents for the first 6 to 12 months rather than bed sharing
  - avoid exposing baby to tobacco smoke before and after birth
  - encourage breastfeeding
- To provide a safe sleeping environment for an infant
  - put baby's feet at the bottom end of the cot
  - ensure the cot meets Australian standards
  - use a firm, clean mattress that fits firmly in the cot
  - tuck bedding in securely
  - keep extra padding, quilts, doonas, duvets, pillows, cot bumpers, sheepskins and soft toys out of the cot or sleeping place (including travel or porta cots)
- The risk of SIDS significantly increases when
– the infant sleeps prone (front) or on their side
– soft surfaces with loose bedding are present
– a room is hot with excess clothing and bedding
– sharing a bed (or sleeping space) especially with smokers
– the infant is exposed to tobacco smoke
– the infant is not immunised\textsuperscript{5,6}

• Bouncinettes, prams and strollers are not designed as sleeping products and babies should not be left unsupervised if they fall asleep in these environments\textsuperscript{5}

3.4 Injury Prevention

• Discussion of the child’s environment should include injury prevention and awareness strategies (see Resource 2) including
  – the importance of supervision of small children
  – teaching children what is safe and what is not
  – fire safety e.g. stove tops, ovens and matches
  – water safety e.g. swimming pools and rivers
  – suffocation and strangulation risks e.g. plastic bags and blind cords
  – window and balcony safety e.g. falls from a height
  – kitchen safety e.g. knives
  – toys and equipment safety e.g. choking hazards on small parts or jamming fingers
  – car safety e.g. child car seat restraints

• Encourage the parent to keep an updated list of emergency numbers near the telephone or in their mobile phones including
  – poisons information centre (131126)
  – local children’s hospital
  – family doctor
  – maternal and child health nurse
  – all-night chemist
  – trusted neighbours
  – relatives

4. Referral

• For any identified overcrowding or housing issues, advocate and refer the client or family to
  – the Department of Housing and Public Works (see Resource 3)
  – housing co-ops
  – regional community housing providers
  – councils

• If there are any child safety concerns make a referral to the appropriate services (see Appendix 2: Child safety reporting, page 498)
5. Follow up
- Place the family on a recall register and continue to monitor if behaviours change and to ensure any referrals are actioned
- Provide the parent and/or child with details for the next scheduled follow up appointment

6. References
3. Queensland Health 2010: Making Tracks towards closing the gap in health outcomes for Indigenous Queenslanders by 2033 - policy and accountability framework, Brisbane 2010

7. Resources
Eyes and vision - child

- Undiagnosed eye and vision problems in children may lead to difficulty with learning, not being able to play sport and not having confidence in dealing with social situations.
- Aboriginal and Torres Strait Islander children especially in remote areas have better vision than their non-Aboriginal and non-Torres Strait Islander peers.
- Test all children with their prescribed glasses or contact lenses.
- If there is trouble with their glasses refer them back to their optometrist.
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

### Health check recommendations

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All children from birth to &lt; 15 years</strong></td>
<td></td>
</tr>
<tr>
<td><strong>All Aboriginal and Torres Strait Islander children annually</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### 1. Procedure

- Ask the parent or child the age appropriate questions according to Table 1.
- Determine if the child requires any visual assessments.
- Determine if the child requires a referral according to the procedures and place on a follow up and recall register if required.

- During testing, observe the child’s behaviour, e.g. holding head forward, frowning or blinking.
- Squinting for example may indicate they are having difficulty seeing clearly.

#### 2. Eye appearance

- Sit child on chair. For security and compliance younger children should sit on parent’s lap.
- Ask the parent to hold the child’s forehead if needed.
- Check external and anterior eye.
- With your thumb lift each eyelid (right first).
- Use a pen torch to check for inturned eyelashes (trichiasis) and any scarring of the upper lid (trachoma - see resources for further diagnosis and management).
- Check for scarring, cysts or styes.
- Droopy eyelids (ptosis).
- Sore or watery eye (trichiasis, epiphora).
• Check conjunctiva and cornea for inflammation, swelling or discharge (conjunctivitis)
• Check pupils for asymmetry
• Abnormal movements (nystagmus)

### Table 1. Age appropriate questions and procedures for child eyes and vision

<table>
<thead>
<tr>
<th>Questions</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0 - 18 months</strong></td>
<td>• Fixates and follows an object</td>
</tr>
<tr>
<td><strong>6 - 18 months</strong></td>
<td>• Corneal light reflex</td>
</tr>
<tr>
<td><strong>1 - 6 weeks, 2 - 18 months</strong></td>
<td>• Red eye reflex</td>
</tr>
<tr>
<td><strong>1 - 6 weeks, 2 and 4 months</strong></td>
<td>• Eye appearance</td>
</tr>
<tr>
<td><strong>3 to &lt; 5 years, 6 and 12 year olds</strong></td>
<td>• Cover test</td>
</tr>
<tr>
<td><strong>All other children between 5 and &lt; 15 years of age</strong></td>
<td>• Visual acuity</td>
</tr>
<tr>
<td>Does child have any trouble seeing things?</td>
<td>• Red eye reflex</td>
</tr>
<tr>
<td>Does child have difficulty seeing what the teacher writes on the board?</td>
<td>• Fixates and follows an object</td>
</tr>
<tr>
<td>Does child have trouble seeing the television screen?</td>
<td>• If yes to any questions then perform a cover test and a visual acuity test</td>
</tr>
<tr>
<td>Does child get a headache if they read for more than 10 minutes?</td>
<td></td>
</tr>
<tr>
<td>Has child ever had an eye injury?</td>
<td></td>
</tr>
<tr>
<td>Does the parent, teacher or health professional report a problem with vision, eye appearance or learning problems?</td>
<td></td>
</tr>
<tr>
<td>Is there a family history of eye problems during childhood?</td>
<td></td>
</tr>
<tr>
<td>Are there any current medical problems?</td>
<td></td>
</tr>
</tbody>
</table>

**3. Fixates and follows an object**

• Hold a pen or toy (for younger children) 30 cm away and slowly move it up, down, left and right in an ‘H’ pattern
• Watch the child’s eyes track the object
• Ask the child to focus on something 6 metres away (picture). For younger children take a
toy 6 metres away and observe them tracking it

- A 6 month old child should be able to fixate and follow an object at 30 cm and at 6 metres
- There should be no abnormal eye movements

4. Red eye reflex

- Ophthalmoscopy to be done by trained clinician
- Get the child to look at a distant point e.g. your ear, the wall
- Direct the ophthalmoscope light at the pupil from 30 cm away
- Look through the scope slowly moving back and forth, up and down until you see a red reflex (the blood at the rear of the retina)
- No red eye reflex may indicate a tumour, congenital cataract or haemorrhage

5. Corneal light reflex

- Generally the child can be looking anywhere for this test
- Shine a pencil torch between the child’s eyes at a distance of 30 cm
- Observe the light reflecting in both eyes
- If the reflection is in the same place on both corneas each eye is fixing on an object equally
- If the reflection is in different places on both corneas the eyes are not fixing on an object equally
- This test is a preliminary step to the cover test which will tell you which eye is affected

6. Visual acuity test (VA)

- Place a Snellen eye chart or a Tumbling E eye chart 6 metres away (or 3 metres if using a scaled down chart) in a well lit area at eye level.
- The clinician can also hold the chart while pointing to the letters and checking that the child’s other eye is covered
- The Tumbling E eye chart is best for younger children
- To test the right eye, cover the left eye using a patch or a piece of card or plastic glasses with one side covered
- Explain to the child to state the letter you point at
- For younger children using the Tumbling E chart, show them how 3 fingers makes an E and to hold their fingers up, down, left or right to indicate what they see
- Point clearly to the letter being tested. Start at the top of the chart and go across the whole line
- Allow the child adequate time to respond
- Go along each line until the child can no longer identify letters
- If they get 3 or more incorrect letters on a line stop, go up a line and repeat
• Allow 2 attempts
• It is not necessary for the client to read the whole chart but most of the lowest line reached must be tested
• The line used to record visual acuity is the last line the person can read without making any mistakes
• Cover the right eye and check the left eye

6.1 Recording visual acuity
• Normal visual acuity is written as 6/6
• The first number 6 refers to the distance that the person is standing away from the chart in metres
• The second number is the lowest line that the person can read on the chart without error e.g. 6, 9, 12, 18, 24, 36 or 60. These numbers are found underneath the corresponding line on the chart

7. Cover test
• A cover test is performed to detect the alignment of the eyes to identify a squint (strabismus) or amblyopia
• Ask the child to look at a distant target i.e. something specific more than 6 metres away, and encourage the child to keep their eyes still
• Cover their right eye with a card or piece of paper and observe the left eye
• Any corrective movement of the left eye (to re-establish fixation) indicates a squint
• Smoothly and slowly remove the card and observe the right eye
• Any movement of the right eye to establish fixation indicates a squint
• Repeat these steps for the left eye
• If needed repeat until satisfied that the test has been performed adequately
• Movements of the cover should be smooth and slow so the eye has time to fixate and blinking is not provoked
• Repeat all of the above steps for a near target e.g. your ear or a pencil

8. Referral
• Refer to the MO/NP, optometrist or ophthalmologist for any
  – abnormal eye appearance
  – reported bluriness
  – squinting to see
  – failure of child to fixate or follow an object
  – uneven eye movement
  – no red eye reflex
  – if the child’s visual acuity is outside normal range (e.g. 6/9, 6/12, 6/18, etc) in one or both eyes
– eye movement during cover test is observed

9. Follow up

• Place the child on a recall register to monitor and ensure any referrals have been actioned
• Provide the parent and child with details for the next scheduled follow up appointment

10. References

1. National Aboriginal and Torres Strait Islander Eye Health Survey Minum Barreng (Tracking eyes), University of Melbourne, Centre for Eye Research Australia and the Vision CRC 2009

11. Resources

General appearance

- A head to toe physical observation of a child can identify issues requiring further investigations including
  - structural abnormalities
  - injuries due to trauma and
  - skin complaints

Child safety notification

- Be alert to any general appearances that may indicate child abuse, harm or neglect such as
  - bruises on any part of a child’s body
  - bruises over soft tissue areas (bruises in children commonly occur over bony areas)
  - human bite marks
  - circular cigarette burns anywhere on body
  - scalds from immersion in hot water such as feet, hands or buttocks
  - fractures of any type in children
  - grazes to genitalia

- See Appendix 2: Child safety reporting, page 498
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Health check recommendations

| Head and face, limbs and joints and skin for all children < 15 years of age |
| Genitalia up to 18 months of age for all children |

1. Procedure

- Perform the age related physical observations as per Table 1.
- Provide brief intervention if any issues are identified
- Determine if the child requires a referral according to observations and place on a follow up and recall register if required

2. Head and face

- Observe and/or feel
  - What the child’s face looks like generally
  - Does the child or young person have microcephaly (a small head)?
  - Is there any plagiocephaly (flattened back of head)?
– Are there any facial abnormalities e.g. thin upper lip, flattened philtrum (groove between the upper lip and nose), short palpebral fissures (eye openings)
– Check nose for alignment and structure
– Check the lips for fullness and colour
– Open the child’s mouth and look at or feel the palate. Are there ridges? Is it flattened or raised?
– Is the hair healthy and shiny or matted and dull? Are there any nits or lice?
– Check the ears for size, shape, colour and position level with eyes
– Are there any sores or scars?

Table 1. Age related general appearance observations for children

<table>
<thead>
<tr>
<th>Area for observation</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to &lt; 15 years of age</td>
<td>• Observe and/or feel</td>
</tr>
<tr>
<td>Head and face</td>
<td>• Observe and/or feel</td>
</tr>
<tr>
<td>Limbs and joints</td>
<td>• Observe and/or feel</td>
</tr>
<tr>
<td>Skin</td>
<td>• Observe and/or feel</td>
</tr>
<tr>
<td>Birth to &lt; 18 months</td>
<td>• Observe and/or feel</td>
</tr>
<tr>
<td>Genitalia</td>
<td>• Observe and/or feel</td>
</tr>
</tbody>
</table>

3. Limbs and joints
3.1 Birth to < 18 months of age

• Observe and/or feel
  – general posture of the child
  – muscle tone and range of spontaneous movement
  – the general appearance of the limbs
  – for any swelling, tenderness, redness, warm or hot skin or pain around the joints
  – for any signs of injury such as bruising
  – the limbs for malalignment or incorrect anatomical position

• Identify any abnormalities of the hips¹
  – lay the infant supine (on their back) on the examination table without their nappy
  – extend the infant’s legs
  – ensure the pelvis is horizontal
  – keeping the hips symmetrical, extend the legs and check symmetry of knee creases
  – check for equal leg length
  – place middle fingers of each hand over the greater trochanter (outer side of hip joint) and thumbs on the inner side of the thighs
  – flex the knees and hips to right angles (90°) parallel with the midline
  – attempt to gently abduct (move away from the midline) both legs outward then adduct (move toward the midline) both legs inwards
  – note any limited or unequal movement
3. General Appearance

- note any dislocation (listen and feel for clicking) or distress caused to the infant

- Identify any posterior abnormalities
  - lay the infant prone (on their stomach) on the examination table without their nappy
  - observe for body symmetry, swellings, dimples, midline of back and buttock creases
  - observe for any birthmarks such as mongolian blue spots
  - note any hairy tufts in the midline (may indicate spina bifida occulta)
  - note any dimples in the midline
  - note any swelling or lumps in the midline (may indicate meningomyelocele)
  - note any deep pilonidal (top of the buttock crease) dimples
  - note any evidence of trauma

3.2 18 months to < 15 years of age

- Observe and/or feel
  - the general appearance of the limbs
  - muscle tone and range of spontaneous movement
  - for any swelling, tenderness, redness, warm or hot skin or pain around the joints
  - for any signs of injury
  - the limbs for malalignment or incorrect anatomical position
  - the child moving, walking, weight bearing and standing
  - any abnormal walking, limping, shuffling, widely placed gait, toe walking, foot flopping, leg lagging, dragging, staggering, unco-ordinated gait

4. Genitalia

- Lay the infant supine (on their back) on the examination table without their nappy

- Observe
  - the general appearance of the genital area
  - for evidence of rash, grazing, bruising or any other abnormality
  - for general nappy hygiene issues such as urine burns (nappy rash) or faecal matter
  - for evidence of neglect or sexual abuse
  - for congenital abnormalities, incomplete development or sexual ambiguity

4.1 For girls

- Observe the labia
  - using 2 fingers gently separate the outer labia to reveal the inner labia and clitoris
  - note any discharge or thrush or faecal matter. This is often an ideal opportunity for vaginal hygiene brief intervention
  - partially or fully fused labia may suggest the presence of a scrotum. Do not attempt to separate
  - a urinary opening that is not located below the clitoris may indicate the presence of a penis i.e. ambiguous genitalia
4.2 For boys

- Ensure that hands are warm (when stimulated by cold or touch the cremasteric muscle reflex causes the skin of scrotum to shrink and pull the testicles into the pelvic cavity)
- Inspect the penis for size and the placement of the urethral opening
  - a non-erect penis at birth is 2 - 3 cm in length with a straight projection
  - microphallus (a small penis) may indicate other organ anomalies
  - do not retract the foreskin of an uncircumcised penis more than is necessary to see the urethra
- Check the descent of the testicles by palpating the scrotum
  - place the thumb and index fingers of one hand over the inguinal canals at the base of the scrotal sac to prevent the testicles from escaping into the inguinal canals or abdomen
  - use the other hand to gently inspect the scrotum for the presence of testicles
  - testicles in a newborn are approximately 1 cm in diameter
  - a testicle that cannot be palpated is considered as undescended or retractile and can be discovered by gently palpating the inguinal region
  - oedema of the scrotum is common, especially after a breech delivery

5. Skin

5.1 Infants aged 1 - 6 weeks

- For jaundice in this age group see Birth information, page 326
- Observe the umbilicus
  - the umbilical stump area should be dry, clean, odourless and usually black
  - note any discharge, redness and skin warmth
  - inspect skin folds in the umbilicus for a nodule of granulomatous tissue
  - note any protrusion through the umbilicus or abdominal muscles (hernia) when the infant strains
  - the umbilicus is usually inverted
  - an umbilical hernia forms a visible and palpable bulge and is common in infants
- Observe for mongolian spots or other birthmarks
  - birthmarks can be flat, raised, have regular or irregular borders, and vary in colour from brown, tan, black, or pale blue to pink, red or purple
  - 2 common types of birthmarks are red, vascular birthmarks (e.g. strawberry haemangiomas, port-wine stains and stork bites) and pigmented birthmarks (e.g. moles, café-au-lait spots and mongolian spots)
  - birthmarks are mostly harmless and many fade, shrink or disappear over time
  - mongolian spots are irregular areas of deep bluish-black to grey pigmentation and are usually found on the back, buttocks, shoulders and legs of babies
  - mongolian spots are often mistaken for bruises and occur almost exclusively in babies with dark or olive skin and usually disappear in the preschool years
5.2 Children > 6 weeks of age

• Ask the parent or the child if they have identified any skin issues

• Note skin that
  – has sores, scabs, scars, or is broken, scratched or cut
  – is jaundiced
  – is bruised (note colour: red dark blue are newer bruises or older bruises are purple and yellow)
  – has rashes
  – has mosquito or sandfly bites
  – is itchy or irritated
  – loss of sensation
  – nodules or lumps
  – is sunburnt

Be alert to injuries that may indicate child abuse or neglect

• Bruises on any part of a child’s body
• Bruises over soft tissue areas. Bruises in children commonly occur over bony areas
• Human bite marks
• Circular cigarette burns anywhere on body
• Scalds from immersion in hot water such as feet, hands or buttocks
• Fractures of any type in children
• Grazes to genitalia
• See Appendix 2: Child safety reporting, page 498

6. Brief intervention

• Avoid retracting the foreskin of an uncircumcised penis
  – the foreskin will retract on its own accord at about 4 years of age by way of erection or childhood exploration
  – once the foreskin does retract, educate the child to clean underneath without soap. Soap will cause drying and excoriation

• Clean any non infected sores with soap and water and apply an antiseptic cream or lotion
  – teach children effective hand hygiene as the single most important strategy in preventing contact related infections (see Resource 1)

• Infants under 6 months of age should be kept out of direct sun
  – outdoors protection should include clothing, sunscreen and hats (see Resource 2)
  – child sunscreen should only be applied to areas such as the face, ears and hands if these areas cannot be protected with clothing or wraps
7. Referral

- Refer to the Appendix 2: Child safety reporting, page 498 if there is any suspicion of child abuse, harm or neglect

- Refer to the current edition of the Primary Clinical Care Manual, a MO or NP for
  - any swelling, tenderness, redness or pain around joints which may indicate acute rheumatic fever or rheumatic heart disease
  - any infected sores, scabies and other skin conditions

- Refer to a MO, NP or Child Health Nurse for further investigations if the following is noted
  - thin upper lip, flattened philtrum and short palpebral fissures which may indicate fetal alcohol spectrum disorder (see Developmental delay in children, page 184)
  - any cleft palate or cleft lip which may hinder a baby’s feeding
  - limited abduction of one or both legs or unequal leg length in newborn to 6 months
  - any asymmetrical knee or buttock creases
  - any pilonidal sinuses or deep dimples
  - any ambiguous genitalia or fused labia
  - testicles which are unable to be milked into scrotum
  - one or both testicles are not palpable
  - testicles felt in groin or lower abdomen
  - any unexplained nodules, lumps or other concerns not mentioned here

8. Follow up

- Place the child on a recall register and continue to monitor to ensure any referrals are actioned

- Provide the parent or child with details for the next scheduled follow up appointment

9. References


10. Resources


Infant reflexes

- Infant’s reflexes are tested to assess neurological development and function
- Infant reflexes disappear as the child gets older and are usually absent after 6 months of age except for the blink reflex which persists throughout life
- Any child presenting with absent reflexes or reflexes persisting past the recommended times must be referred to the MO/NP
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Health check recommendations

All children from birth to 6 months as part of routine child health checks

1. Procedure
- Perform each reflex assessment
- Use the online video to assist with the assessment (see Resource 1)
- Determine if the infant requires a referral according to a present or absent age related reflex and place on a follow up and recall register if required

1.1 Moro reflex (1 week - 2 months)
- With the infant supported in the semi-sitting position, allow the head and trunk to drop back to a 30 degree angle
- Observe the arms adduct (splay outwards) in an embracing motion followed by relaxed flexion
- The legs may follow a similar pattern of response
- This reflex diminishes in strength by 3 - 4 months and disappears by 6 months

1.2 Blink reflex (1 week onwards)
- Shine a light at the infant’s open eyes or make a sudden sound such as a clap close to the infant’s face
- Observe a quick closure of the eyes and dorsal flexion of the infant’s head
- No response to shining a light into the eyes may indicate poor light perception and should be followed up by the MO/NP
- This is a permanent reflex and should not diminish with time

1.3 Stepping reflex (1 week - 2 months)
- Hold the infant upright by supporting under the infant’s arms and allow the soles of the feet to touch the surface of the table
- Observe for alternate flexion and extension of the legs in a simulated walking fashion
• This reflex disappears before voluntary walking

1.4 Grasp or palmar reflex (1 week - 3 months)
• Avoid touching the back of the infant’s hand when assessing this reflex
• Making sure the infant’s head is in midline, touch the palm of the infant’s hand with the tip of a finger
• Note the strong grasp of your finger
• Sucking also facilitates the grasp reflex as does applying light traction to the arm
• This reflex should be strongest between 1 and 2 months of age and disappear by 3 months

1.5 Rooting or sucking reflex (1 week to 4 months)
• Touch one corner of the infant’s mouth
• The infant should open their mouth and turn their head in the direction of the stimulation
• If the infant has been recently fed, minimal or no response is expected

1.6 Plantar or babinski reflex (1 week to 6 months)
• Firmly stroke the lateral plantar surface (sole) of the infant’s foot
• The big toe should move upwards with the other toes fanning out
• This is a normal response in infants but should not be present in children older than 12 months

2. Result
• Note any deficits to reflexes within the scheduled time frames

3. Brief intervention
• Provide the parents with anticipatory guidance in relation to reflex progression and reflex resources (see Resource 1)

4. Referral
• Refer to the MO/NP or paediatrician if
  – there are any age related reflex deficits
  – any infant reflexes persist beyond the recommended time frames
  – the parent has any concerns

5. Follow up
• For any reflex deficits, place the child on a recall register and monitor to ensure any referrals have been actioned
• Provide the parent with details for the next scheduled follow up appointment
6. References

7. Resources
1. See YouTube videos for step by step vision of childhood reflexes available at https://www.youtube.com/watch?v=zk8dmE5Tc0Y
Nutrition - child

- Many chronic conditions are attributed to poor nutrition, including:
  - type 2 diabetes
  - cardiovascular disease
  - renal disease
  - poor oral health
  - iron deficiency
  - anaemia
  - some forms of cancer
- Poor nutrition from in-utero to 2 years of age is associated with:
  - increased risk of chronic conditions in adulthood
  - poor brain development
- It is important for parents to become healthy role models to encourage and promote breastfeeding and healthy lifelong family eating habits
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Health check recommendations

All children from birth to < 15 years of age annually

1. Procedure
- Ask the parent the nutrition questions according to the child’s age (see Table 1)
- For children eating solids ask what they ate the previous day to determine a dietary pattern
- Identify if the child does or does not meet adequate dietary intake (see Diet and nutrition, page 14)
- Determine if the child requires a referral according to the answers and make a referral and place on a follow up and recall register if required

2. Results
- If at any age a child’s nutritional intake is inadequate then provide support with nutritional brief intervention

3. Brief Intervention
- See Diet and nutrition, page 14
### Table 1. Age related nutrition questions for children

<table>
<thead>
<tr>
<th>Question</th>
<th>Explore</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0 to &lt; 3 years of age</strong></td>
<td></td>
</tr>
<tr>
<td>Breastfeeding only</td>
<td>• Ask the questions</td>
</tr>
<tr>
<td>Formula feeding only</td>
<td></td>
</tr>
<tr>
<td>Any other food or drink</td>
<td></td>
</tr>
<tr>
<td><strong>6 months to &lt; 3 years</strong></td>
<td></td>
</tr>
<tr>
<td>Eating solids</td>
<td>• Ask the questions</td>
</tr>
<tr>
<td>Uses a bottle</td>
<td></td>
</tr>
<tr>
<td>Uses a cup</td>
<td></td>
</tr>
<tr>
<td><strong>6 months to &lt; 5 years</strong></td>
<td></td>
</tr>
<tr>
<td>Healthy food and drink</td>
<td>• Identify if the parent feeds the child nutritionally rich or poor foods</td>
</tr>
<tr>
<td>Nutritionally poor food and drink</td>
<td>• Details and examples are available in Diet and nutrition, page 14</td>
</tr>
<tr>
<td>Is the parent always able to provide the child</td>
<td></td>
</tr>
<tr>
<td>with food?</td>
<td></td>
</tr>
<tr>
<td><strong>5 to &lt; 15 years</strong></td>
<td></td>
</tr>
<tr>
<td>What did the child eat yesterday?</td>
<td>• Asking what they ate the previous day helps determine a dietary pattern</td>
</tr>
<tr>
<td>What did the child drink yesterday?</td>
<td>• For details of serve sizes and examples see Diet and nutrition, page 14</td>
</tr>
<tr>
<td>Is the child always able to access food?</td>
<td></td>
</tr>
</tbody>
</table>

**3.1 Babies aged 0 to < 6 months**
- Encourage and support exclusive (only) breastfeeding for optimal growth, health and development until around 6 months of age and can continue breastfeeding until 2 years or older
- Formula fed babies can have an infant formula until 1 year of age
- Infant formula will provide all the iron needed for the first 6 months
- Provide only water, formula or expressed breastmilk in a baby’s bottle
- Babies require no other food or fluids until 6 months of age

**3.2 Children aged 6 - 9 months**
- Children can continue to have breastmilk until 2 years or older
- From 6 months of age the baby requires solid foods as breastmilk and infant formula are not enough to sustain growth and development
- Tips for first foods (see Diet and nutrition, page 14)
  - add breastmilk, formula or water to thin consistency which assists with swallowing
  - provide thicker foods as the child ages and becomes more proficient at swallowing
  - puréed iron rich cereals, vegetables, fruits, fish and eggs
  - yoghurt and cheese
  - by 9 months the baby should be having 3 regular meals each day
– avoid takeaway foods, cakes, biscuits, lollies, ice cream and deep fried foods
– avoid salt, pepper, soy sauce, curry or other spices as they can harm babies underdeveloped kidneys
• Use visual charts to highlight sugar and fat content of food (see Resource 1)

3.3 Children aged 12 to 21 months
• Children can continue to have breastmilk until 2 years or older
• If formula fed, the child can switch to full fat cow’s milk from 1 year of age
• Encourage only water and milk as the fluids of choice
• Avoid tea, coffee, cordials, sports and energy drinks and fizzy drinks
• Offer children up to 6 small meals a day including
  – plenty of nutritious fruit, vegetables, meats and dairy
  – eating similar healthy foods as the family
  – children under 2 years can have full fat dairy products
• Use visual charts to highlight sugar and fat content of food (see Resource 1)

3.4 Children aged 2 to < 15 years
• Young children and adolescents need sufficient nutritious foods to grow and develop normally including (see Resource 2)
  – a wide variety of nutritious foods
  – vegetables, legumes and fruits
  – cereals including breads, rice, pasta and noodles, preferably wholegrain
  – lean meat, fish, poultry and eggs
  – milks, yoghurts, cheese and/or alternatives. Reduced fat varieties should be encouraged from 2 years of age
  – water
  – foods low in salt
• Avoid or limit nutritionally poor foods and drinks
  – takeaway foods high in saturated fats, salt and sugar
  – foods and treats containing added sugars
  – sausage rolls, meat pies, chicken nuggets and kabanas
  – cakes, biscuits, potato chips and hot chips
  – soft drinks, cordial, fruit juice drinks, 100% fruit juice, tea/coffee, energy drinks and sports drinks
• Use visual charts to highlight sugar and fat content of food (see Resource 1)

Parents who provide children with a regular diet of nutritionally poor foods and drinks predispose their children to chronic conditions later in life
4. **Referral**

- Consider barriers to healthy eating such as finances, location and availability of nutritious foods and refer accordingly
- Consider referrals to
  - community nutrition team
  - dietitian
  - child health nurse or health worker
  - paediatrician or MO/NP
  - social worker
- If you have any concerns about a child's nutritional intake refer to the MO/NP

5. **Follow up**

- Place the child on a recall register to monitor nutrition and to ensure any referrals have been actioned
- Provide the child or parent with details for the next scheduled follow up appointment

6. **References**


7. **Resources**


Oral health - child

- Dental caries currently affects more than half the population
- There is an association between periodontal disease and the risk of heart disease, coronary artery disease, otitis media, diabetes, obesity and diets high in sugar and fat\textsuperscript{1,2,3}
- Compared to the overall Australian population of similar age, Aboriginal and Torres Strait Islander children have more than twice the caries and dental decay\textsuperscript{4}
- Children are at highest risk of oral diseases due to a reduced capacity for self care
- Tooth eruption times vary
- Some babies are born with an erupted incisor tooth (neonatal tooth) which is lost soon after birth
- Deciduous (baby) teeth begin to erupt at approximately 6 months of age
- Lower teeth usually erupt before the upper teeth
- Girls usually precede boys in tooth eruption
- The teeth in both jaws usually erupt in pairs, one on the right then one on the left
- All deciduous teeth should have erupted by 3 years of age
- Children under 4 years of age are eligible for free dental care through Queensland Health Adult Oral Health Services if they are a dependant of a person holding a current Health Care Card or Pension Concession Card
- Children should have a dental assessment by 2 years of age
- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Health check recommendations

All children > 6 months of age annually

1. Procedure

- Ask the parent or child the age appropriate questions (see Table 1)
- If the parent answers ‘no’ to any questions for a child aged 0 - 4 years then provide brief intervention
- Qualify the 5 to < 15 year old questions and provide brief intervention if required
- Determine if the child requires a referral according to the answers and place on a follow up and recall register if required
<table>
<thead>
<tr>
<th>Question</th>
<th>Explore</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>6 months to &lt; 18 months</strong></td>
<td>• Use of a soft toothbrush?</td>
</tr>
<tr>
<td>Does the child have any teeth?</td>
<td>• No toothpaste?</td>
</tr>
<tr>
<td>Does the parent clean the child’s teeth?</td>
<td>• Offer brief intervention</td>
</tr>
<tr>
<td></td>
<td>• Perform visual teeth and gum check</td>
</tr>
<tr>
<td><strong>18 months to &lt; 5 years</strong></td>
<td>• Use of a soft toothbrush?</td>
</tr>
<tr>
<td>Does the parent clean the child’s teeth twice a day?</td>
<td>• Use of a low fluoride toothpaste?</td>
</tr>
<tr>
<td></td>
<td>• Offer brief intervention</td>
</tr>
<tr>
<td></td>
<td>• Perform visual teeth and gum check</td>
</tr>
<tr>
<td><strong>5 years to &lt; 15 years</strong></td>
<td>• Use of a soft toothbrush?</td>
</tr>
<tr>
<td>How often does the child brush their teeth?</td>
<td>• Use of a fluoride toothpaste?</td>
</tr>
<tr>
<td>Has the child had any toothache or bleeding gums in the last 4 weeks?</td>
<td>• Offer brief intervention</td>
</tr>
<tr>
<td>Has the child had a dental check up in the last 2 years?</td>
<td>• Perform visual teeth and gum check</td>
</tr>
</tbody>
</table>

1.1. **Visual oral check**

- An oral check involves visualising all aspects of the oral cavity; teeth, gums and cheeks
- Don gloves
- Position the child comfortably
- Ensure the room is well lit or have a light available
- Lift the upper lip and lower the bottom lip to view the teeth
- Inspect the outer surfaces of the teeth
- Observe for tooth alignment, frosting (early decay), brown decay (active) and black decay (inactive)
- Using a tongue depressor inspect the oral cavity, gums and rear teeth

2. **Results**

- The gums surrounding the teeth should be pink with clearly defined and tight margins around each tooth
- The gums should be free of inflammation, swelling and bleeding
- The gums should not be tender or painful
- Loose teeth, or gums which bleed spontaneously or during brushing, are indicative of periodontal disease (see Dental caries and periodontal disease, page 162)
- The mucous membranes inside of the cheeks should be pink, red, smooth and moist
- If at any age a child’s oral health is poor, provide support with brief intervention and make the appropriate referral
3. Brief intervention

3.1 Children aged 0 - 5 years

- Begin cleaning children’s teeth using a damp cloth as soon as they erupt as plaque will begin to form straight away
- From 6 - 18 months of age, in areas of fluoridated water supply, child’s teeth should be brushed twice a day without toothpaste using a small soft toothbrush
- Between 18 months and 5 years of age child’s teeth should be brushed twice a day with a small soft toothbrush with a small pea sized amount of low fluoride toothpaste
- A parent is responsible for cleaning a child’s teeth until 8 years of age as children lack the motivation and the manual dexterity to maintain their oral health thoroughly
- Parents should develop a regular toothbrushing routine for their children from an early age
- Children should not dispense toothpaste without supervision
- Keep toothpaste out of reach of children

For children between 6 and 18 months of age living in areas with unfluoridated water supplies, teeth should be brushed twice a day with a small pea sized amount of low fluoride toothpaste by a responsible adult

- The toothbrushing method is a circular or jiggling motion on both the inside and outside surfaces of the tooth, along the gum margins, then a scrubbing motion along the chewing surfaces
- Encourage the child to spit toothpaste out and not swallow it
- Parents should not share toothbrushes, food utensils or place baby bottles or dummies in their own mouths. This spreads harmful oral bacteria to children which causes decay
- Breastfeeding is best for baby’s teeth
- If bottle feeding, put only breastmilk, formula or water in the bottle. Hold baby close when feeding
- Do not put a baby to bed with a bottle
- Provide healthy food choices
- Tap water is the best choice for a drink
- Juice, sports drinks and cordials are high in sugar and should be avoided
- Limit the number of sugary or acidic snacks
- Choose fruit (apples and bananas) and vegetable (carrots and tomatoes) snacks
- Encourage annual dental visits
- In communities where there is no access to a fluoridated drinking water supply, dental practitioners can provide advice about access to alternate sources of fluoride such as
mouth rinses, high fluoride toothpastes and fluoride supplements

3.2 Children aged > 6 years

- A parent is responsible for cleaning a child’s teeth until 8 years of age as children lack the motivation and the manual dexterity to maintain their oral health thoroughly
- Using a soft toothbrush the teeth should be cleaned twice a day or more frequently with standard fluoride toothpaste
- Brush all surfaces of the teeth i.e. the inside, outside and chewing/biting surfaces
- Brush to the gum margins to prevent gum disease
- When finished spit out the toothpaste, but do not swallow it or rinse the mouth
- Brush before going to bed at night as saliva flow is reduced when you sleep and decay causing bacteria attack dry tooth surfaces
- Replace the toothbrush after 3 - 4 months or sooner if bristles become frayed with use
- It is important for everyone in the family to look after their teeth as the germs that cause tooth decay can spread from person to person
- Use dental floss or interdental cleaning products to clean between the teeth
- Make healthy food choices
- Water is the best choice for a drink
- Juice, sports drinks and cordials are high in sugar and should be avoided
- Limit the number of sugary or acidic food snacks
- Choose fruit, cheese and vegetables for snacks
- Encourage annual dental visits
- In communities where there is no access to a fluoridated drinking water supply, dental practitioners can provide advice about access to alternate sources of fluoride such as mouth rinses, high fluoride toothpastes and fluoride supplements

4. Referral

- For any concerns outlined in Table 2. refer to
  - the current edition of the *Primary Clinical Care Manual (PCCM)*
  - the free government funded dental service if the child is aged from 2 - 17 years and is eligible for the Child Dental Benefits Schedule (see Resource 3. for eligibility criteria)
  - the free government funded dental service if the child is aged from 4 to the completion of Year 10 (see Resource 3. for eligibility criteria)
  - a private dentist (parents can use the Child Dental Benefits Schedule entitlement)
  - see *Dental caries and periodontal disease, page 162*
Table 2. Oral health related referral issues

<table>
<thead>
<tr>
<th>Site</th>
<th>Problem</th>
</tr>
</thead>
</table>
| Teeth | • Malalignment  
• Decay (white spots, brown or black holes)  
• Loose or missing  
• Plaque buildup  
• Trauma  
• Toothache |
| Gums | • Swelling  
• Bleeding (spontaneously or when brushing)  
• Tenderness or pain  
• Abscess or ulcers  
• Thrush |

5. Follow up

- Place the child on a recall register to monitor dental issues and to ensure any referrals are actioned
- Provide the child or parent with details for the next scheduled follow up appointment

6. References


7. Resources

Physical activity - child

• Knowing a child's level of activity allows the clinician to determine a child's relative risk for future health problems and provides an opportunity to intervene early

• For children, being physically active\(^1\)\(^-\)\(^3\)
  - creates opportunities for fun with friends
  - reduces anti-social behaviour, including aggressive and disruptive behaviour
  - develops skills such as co-operation and teamwork
  - improves self-esteem and confidence
  - improves concentration
  - improves ability to manage anxiety and stress
  - reduces the risk of developing type 2 diabetes and cardiovascular disease
  - improves physical fitness, including co-ordination and movement skills
  - reduces unhealthy weight gain
  - builds strong muscles and bones and promotes healthy growth and development

• Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

---

Health check recommendations

All children from birth to < 15 years

1. Procedure

• Ask the age appropriate questions as per Table 1.

• Provide brief intervention if the parent answers other than the ideal

• Be prepared to explore the issues further and/or refer for further support

• Determine if the child requires a referral according to the answers and place on a follow up and recall register if required

2. Results

2.1 Physical activity\(^1\)\(^-\)\(^3\)

• Physical activity is any activity that gets children moving, makes their breathing become quicker, and their heart beat faster

• Moderate intensity activity requires some effort, but children can still speak easily while doing it e.g. fast walking, riding a bike or scooter and active play

• Vigorous intensity activity requires effort and makes children breathe hard and fast (‘huff and puff’) e.g. running, chasing and organised sports like football or netball\(^1\)
Table 1. Physical activity questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Explore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 1 years of age</td>
<td></td>
</tr>
<tr>
<td>Does the infant do floor based play daily?</td>
<td>• Yes or no</td>
</tr>
<tr>
<td></td>
<td>• Tummy time, rolling, crawling, cruising, etc.</td>
</tr>
<tr>
<td>1 to &lt; 5 years of age</td>
<td></td>
</tr>
<tr>
<td>Is the child physically active for at least 3 hours daily?</td>
<td>• Yes or no</td>
</tr>
<tr>
<td></td>
<td>• What exercise does the child normally do?</td>
</tr>
<tr>
<td></td>
<td>• What about screen time?</td>
</tr>
<tr>
<td>For all children and young people aged &gt; 5 years of age</td>
<td>• Add up the times a child is active</td>
</tr>
<tr>
<td></td>
<td>• 10 minutes before school?</td>
</tr>
<tr>
<td></td>
<td>• 30 minutes recess play?</td>
</tr>
<tr>
<td></td>
<td>• 30 minutes lunch play?</td>
</tr>
<tr>
<td></td>
<td>• 30 minutes after school?</td>
</tr>
</tbody>
</table>

2.2 Sedentary behaviour\(^1,2,3\):

- Sedentary behaviour is characterised by sitting or lying down (except for when sleeping)
- The use of electronic media or screen time is a major contributor to sedentary behaviour

3. Brief intervention\(^1,2\):

- Always work closely with the parent when providing brief intervention about diet and physical activity
- Children from birth to 5 years should not be sedentary, restrained, or kept inactive, for more than 1 hour at a time, with the exception of sleeping
- Infants aged 0 - 1 year should be encouraged to do floor based play in a safe and supervised environment
- Toddlers and pre-schoolers aged 1 - 5 years should be physically active every day for at least 3 hours, spread throughout the day
- Children and young people aged 5 - 15 years should accumulate at least 60 minutes of moderate to vigorous intensity physical activity every day including
  - a variety of aerobic activities
  - activities that strengthen muscle and bone at least 3 days per week
- Daily physical activity can be accumulated throughout the day
- Provide physical activity resources (see Resource 1)
- For recommendations on age related physical activity requirements refer to Physical activity, page 26
4. Referral

- Refer to Physical activity, page 26 for detailed information
- For any child who is identified as leading a sedentary lifestyle or is overweight or obese, refer to Overweight and obesity in children, page 270
- Refer any child to the MO/NP where there are concerns about ongoing sedentary lifestyle and/or overweight or obesity issues despite previous brief interventions

5. Follow up

- Place the family on a recall register and continue to monitor if behaviours do not change and to ensure any referrals are actioned
- Provide the parent or child with details for the next scheduled follow up appointment

6. References


7. Resources

Section 3: Child health checks

Physical activity - child

bese,
ongoing sedentary
ars.
ars.
son
alian
ermment
au/
Social emotional wellbeing - child

- Infancy is recognised as a foundational developmental period, physically, psychologically and socially.¹,²
- Relationships and the quality of experiences are the ways babies and young children come to know the world and their place in it.¹,²
- For children to develop into healthy adults they need to feel wanted, loved and secure.
- Through relationships, young children develop social and emotional wellness, which includes: the ability to form satisfying relationships with others, play, communicate, learn, face challenges and experience emotions.²,³
- Psychosocial factors affect infant development including temperament and the quality of the parent attachment relationship.¹,²,³
- Adverse developmental experiences during childhood and as a young person can become risk factors for later social emotional development.¹,²,³
- The social emotional wellbeing questions aim to identify infants, children and young people who may be:
  - experiencing feelings that impact on their social and emotional wellbeing
  - experiencing thoughts/feelings of suicide or self-harm
  - at risk of neglect or abuse and future mental health difficulties

- Online training for health checks and preventative care is available via PARROT at www.health.qld.gov.au/parrot

Child safety notification

- If there is a suspicion of harm or neglect consider a referral to child safety. See Appendix 2: Child safety reporting, page 498

---

### Health check recommendations

<table>
<thead>
<tr>
<th>All parents of children aged 0 to &lt; 8 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>All children aged 8 to &lt; 15 years</td>
</tr>
</tbody>
</table>

#### 1. Procedure

- Ask the age appropriate questions in private (see Table 1. and Table 2)
- Be prepared for the child and/or parent to debrief with you
- Introduce the questions by asking about any concerns the client may have
- Determine if the child requires a referral according to the answers and place on a follow up and recall register if required
1.1 Parent questions

- Asked of parents of children aged 0 to < 8 years as per Table 1.
- Observe how the child reacts or responds to the parent’s cues
  - do they seek the comfort of the parent if they are hurt or scared?
  - does the child respond positively to their parent?
  - observe the child’s facial expressions, eye contact, vocalisations, activity and recognition of others around them
- Observe the interaction and reactions of the parent towards the child including
  - impatience toward the child
  - unrealistic expectations e.g. a child should sleep all night and never cry
  - anger towards, yelling at or rough handling of the child
  - limited or no eye contact or communication between the parent and child
  - the parent speaking negatively, e.g. “she does this just to annoy me”, “he hates me” or “I don’t like her”
  - parent fails to respond to the child’s cues
  - the parent is anxious about the child’s behaviour

<table>
<thead>
<tr>
<th>Table 1. The social emotional wellbeing questions for parents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Questions</strong></td>
</tr>
<tr>
<td>For parents of children aged up to 8 years ask if they have any concerns about any of the following</td>
</tr>
<tr>
<td><strong>Coping</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Relationships (with family or friends)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Support</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Violence</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Your child’s behaviour</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

While observing, the clinician considers the question “Is the relationship between the parent and child positive or negative?”
1.2 Child questions

- Asked of children aged 8 to < 15 years as per Table 2.
- The questions can be asked with or without a parent.
- Some Aboriginal and/or Torres Strait Islander children may find the questions difficult to understand. Be prepared to use age appropriate words or re-phrase the questions e.g. “is your spirit weak or strong at the moment?”
- Observe for visual cues (facial expressions, body language) being mindful of cultural aspects of communication (eye contact, bowed head).

<table>
<thead>
<tr>
<th>Table 2. The social emotional wellbeing questions for children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For children aged 8 to &lt; 15 years</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Tally the responses to determine a score out of 18 - see 2.2 Child questions.

2. Results

2.1 Parent questions

- If a parent answers ‘yes’ to any of the areas of concern, offer brief intervention and make an appropriate referral.
- If the parent answers “no” to any of the areas of concern and the clinician has no concerns, offer information and praise successes “it sounds like everything is going well for you, that’s great” and “if you ever have any concerns or negative feelings, please feel free to come and have a confidential chat about it”

2.2 Child questions

- Add the scores
- If the score tallies 10 or less offer brief intervention.
• If the score tallies 11 or higher
  – make the appropriate referral
  – offer brief intervention
  – refer to a senior clinician who may perform a 25 item Strengths and Difficulties Questionnaire (SDQ) with the child, young person, parent or teacher to determine the urgency for when the child needs to be seen (see Resource 1)

**Immediate referral**

If the parent or child talks about harming themselves or someone else they should be referred immediately to the MO/NP or mental health services and not left alone or sent away until their care has been handed over.

### 3. Brief intervention

- Ask the child, young person or parent if they are talking to, or have someone to talk to about the way they feel
- Encourage them to talk to someone they feel safe with when they are worried or scared
- Discuss how certain feelings or thoughts are part of everyone’s life but bad feelings and thoughts should be monitored as they can cause problems if they become so intrusive they impact on the ability to function appropriately
- Discuss how the body reacts in times of stress, fear, confusion and sadness including
  - heart beating fast
  - sweating
  - crying
  - shaking
- Encourage the child, young person or parent to seek help if their feelings become more regular or intrusive and impact on normal functioning

### 4. Referral

#### 4.1 Parent questions

- Refer to the MO/NP or mental health worker if
  - concerns are raised by the family about the child
  - you are concerned about the parent’s ability to cope
  - you observe relationship or attachment issues between the child and parent
  - you identify emotional or wellbeing issues for the child or young person
- Consider referring to a postnatal home visiting program
- Refer to Appendix 2: Child safety reporting, page 498 if you have any child safety concerns
- For further referral options see Table 3.
4.2 Child questions

- Refer to the MO/NP or mental health services if
  - after answering the questions the child scores 11 or higher
  - concerns are raised by the family
  - you identify emotional or wellbeing concerns for the child or young person
  - a clinician chooses to perform the 25 item Strengths and Difficulties Questionnaire (SDQ) with the child or young person who meets the cutoff threshold

Table 3. Referral options

<table>
<thead>
<tr>
<th>Queensland Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Health worker or registered child health nurse</td>
</tr>
<tr>
<td>• Your local Child Protection Liaison Officer or Safe Kids or Child Safety Services Regional Intake Services (see Appendix 2: Child safety reporting, page 498)</td>
</tr>
<tr>
<td>• Psychologist or social worker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cultural services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Aboriginal and Torres Strait Islander Legal Service (Qld) Ltd at <a href="http://www.atsils.com.au/">http://www.atsils.com.au/</a></td>
</tr>
<tr>
<td>• Minister/Pastor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Royal Flying Doctor Service nurse or doctor</td>
</tr>
<tr>
<td>• School Principal or student guidance officer</td>
</tr>
<tr>
<td>• Lifeline at <a href="https://www.lifeline.org.au/">https://www.lifeline.org.au/</a></td>
</tr>
</tbody>
</table>

5. Follow up

- If concerns are identified place the parent and child on a recall register and review within a week or as clinically indicated by the MO/NP or mental health services to ensure any referrals are actioned
- Provide the parent or child with details for the next scheduled follow up appointment
6. References


7. Resources

1. The Strengths and Difficulties Questionnaire and how to score is available at http://www.sdqinfo.org/
2. Working with young people available at www.beyondblue.org.au
3. Menzies resources for Aboriginal or Torres Strait Islander people http://www.menzies.edu.au/page/Resources/
Special considerations

- The incidence of type 2 diabetes among children and adolescents is increasing particularly among Aboriginal and Torres Strait Islander peoples where the burden is much greater than that experienced by non-Indigenous young people\(^1,2\)

**Health check criteria\(^1,2\)**

- A blood pressure is performed and venous blood taken for blood glucose and lipid profile if the child is over 10 years of age and has a BMI > 85th percentile for age and gender (See **Overweight and obesity in children, page 387**) plus any 2 of the following
  - a family history of type 2 diabetes
  - of Aboriginal or Torres Strait Islander, Pacific Islander or Maori decent
  - maternal history of diabetes or gestational diabetes mellitus or
  - signs of
    - insulin resistance
    - acanthosis nigricans
    - hypertension
    - dyslipidaemia
    - polycystic ovary syndrome


1. **Procedure**

- Measure the blood pressure and take venous blood for blood glucose and a lipid profile if the child meets the above criteria
- Provide brief intervention and resources if required
- Determine if the child requires a referral according to the results and place on a follow up and recall register if required

2. **Blood pressure (BP)**

- Blood pressure is a measurement of the pressure of the blood against the walls of the blood vessels
- BP indicates how hard the heart is working and the health of the blood vessels
- Hypertension in children is attributed to many conditions including acute post streptococcal glomerular nephritis (APSGN)
- Measure the blood pressure to the nearest 2 mmHg
- During initial assessment BP is measured on both arms\(^3\)
- If BP varies by more than 5 mmHg use the arm with the higher reading for all subsequent BP measurements\(^3,4\)
- Where postural hypotension (low BP due to standing, sitting or lying) is suspected,
measure BP both sitting and standing\textsuperscript{3,4}

• Repeat the measurement after the child has been standing for 2 minutes

2.1 Blood pressure results

• See Table 4. for blood pressure limits for children

• A raised BP in response to the assessment itself (‘white coat’ hypertension) should be considered and ruled out

| Table 1. Blood pressure limits in children and adolescents requiring further evaluation\textsuperscript{5,6} |
|---|---|---|---|
| Age | Boys | Girls |
| | Systolic | Diastolic | Systolic | Diastolic |
| 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 |

• These values represent the lower limits for abnormal blood pressure ranges

• Any blood pressure readings equal to or greater than these values represent blood pressures in the prehypertensive, stage 1 hypertensive, or stage 2 hypertensive range and should be assessed by a MO or NP

3. Venous blood

• A venous blood sample is required for a blood glucose result and a lipid profile for children who meet the criteria (see health check criteria)

• Phlebotomy (taking venous blood) should be undertaken by a suitably qualified clinician according to local policies and guidelines (see Resource 2)

3.1 Blood glucose results

• Measured to identify diabetes, a chronic metabolic condition characterised by high blood glucose levels (BGL) and disturbance of carbohydrate, fat and protein metabolism\textsuperscript{6,7}

• Diabetes destroys small blood vessels, reducing the ability of nerves to function (diabetic neuropathy) leading to many problems including blindness and amputations\textsuperscript{7,8}

• A normal blood glucose (fasting or random) should be < 5.0 mmol/L

3.2 Lipid profile result\textsuperscript{9,10,11}

• Performed to measure circulating blood cholesterol

• Fatty deposits in the walls of blood vessels causes narrowing and blockages leading to heart disease and stroke
• See Table 2. for lipid targets for children aged 10 to < 15 years of age

| Table 2. Lipid targets for children and adolescents aged 10 to < 15 years of age² |
|-------------------------------|------------------|------------------|
| **Lipids**                    | **Percentile**   | **Boys** | **Girls** |
| Total cholesterol (mmol/L)    | 50th percentile  | 4.2      | 4.1       |
|                               | 75th percentile  | 4.5      | 4.4       |
|                               | 90th percentile  | 4.9      | 4.9       |
|                               | 95th percentile  | 5.2      | 5.3       |
| Triglyceride (mmol/L)         | 50th percentile  | 0.7      | 0.8       |
|                               | 75th percentile  | 0.8      | 1.0       |
|                               | 90th percentile  | 1.1      | 1.2       |
|                               | 95th percentile  | 1.3      | 1.4       |
| LDL (mmol/L)                  | 50th percentile  | 2.4      | 2.4       |
|                               | 75th percentile  | 2.8      | 2.8       |
|                               | 90th percentile  | 3.2      | 3.3       |
|                               | 95th percentile  | 3.4      | 3.5       |
| HDL (mmol/L)                  | 50th percentile  | 1.0      | 1.0       |
|                               | 75th percentile  | 1.0      | 1.0       |
|                               | 90th percentile  | 1.2      | 1.2       |
|                               | 95th percentile  | 1.4      | 1.3       |

4. Brief intervention
• Any brief intervention for abnormal blood pressure, glucose level or lipid profile aims to improve lifestyle behaviours to
  – increase intake of nutritious food and reduce intake of junk foods (see Diet and nutrition, page 14)
  – reduce body weight (see Overweight and obesity in children, page 270)
  – increase the amount of time being active and reduce sedentary behaviours (see Physical activity - child, page 400)
• For specific diagnosed conditions see Hypertension, page 228, Diabetes type 2, page 196 or Dyslipidaemia, page 210

5. Referral
• Any abnormal results outside of target levels require further investigation and should be referred to the MO/NP
• For any concerns about any child refer to a senior clinician

6. Follow up
• Place the child on a recall register to monitor any abnormal clinical measurements and to ensure referrals are actioned
• Provide the child or parent with details for the next scheduled follow up appointment

7. References

8. Resources