



## PROCEDURE

### Body Mass Index assessment - Child Health

<b>Scope (Staff):</b>	Community health staff
<b>Scope (Area):</b>	CACH, WACHS

This document should be read in conjunction with this [DISCLAIMER](#)

#### Aim

To identify children with growth (height, weight, BMI) outside of the expected range for age and gender, and to provide family support for making positive lifestyle changes and/or referral when required.

#### Risk

Failure to identify children who are outside of a healthy body mass index (BMI) range for their age increases the risk of unhealthy weight status intensifying with age. Being overweight or obese increases the risk for short and long term health consequences, and increases the burden of disease and associated health care costs.<sup>1 2, 3</sup>

#### Background

The prevalence of obesity in early childhood is high, with 23% of Australian children aged 2-4 years overweight, including 5% who are obese. Research indicates that rates increase with age<sup>4</sup>. The likelihood of childhood overweight and obesity persisting into adulthood is correlated to the degree of adiposity, age of child<sup>5</sup> and parental obesity. A systematic review in 2008 revealed that 85% of overweight children aged 2-5 years would become obese adults<sup>6</sup>.

Universal growth monitoring of children at key milestones facilitates early identification of weight concerns and provides opportunity for early interventions to support families to achieve and maintain healthy lifestyles for their children<sup>3</sup>.

The National Health and Medical Research Council (NHMRC)<sup>7</sup>, along with other leading international affiliates<sup>3, 8</sup> recommend the use of BMI assessment for children two years and older plotted on BMI-for-Age Percentile charts (for boys or girls) as an initial (first level) assessment to identify children who may be outside the healthy weight range. BMI should be used to identify cases where lifestyle assessment, monitoring and/or additional medical assessments may be required.

Growth assessment is most meaningful when serial measurements are collected to enable monitoring over a period of time<sup>9</sup>. At the Universal Contact 2 Years, Body Mass Index (BMI) is introduced as an important component of the holistic growth assessment. BMI is next offered universally at the Universal contact 4 years (School Entry Health Assessment) and may be repeated at targeted (or follow-up) appointments when a concern is identified.

The early identification of overweight and obesity in childhood can improve long-term physical and psychosocial health outcomes.<sup>1,3</sup> The sooner that being overweight is detected in young children, the easier it is to address and correct.<sup>2,3,10,11</sup>

BMI is a score calculated as the ratio of an individual's weight in kilograms to height in metres squared (kg/m<sup>2</sup>). While BMI does not distinguish between fat, muscle or fluid it can be used as a measure in adults to measure excess body weight for height.<sup>7</sup> In children, the BMI score is adjusted for age and gender (on BMI-for-Age and gender percentile growth charts), in order to account for growth and body fat changes that occur as part of normal development. Infants and young children have a relatively higher proportion of fat as a normal component of growth. During middle childhood BMI falls as children become relatively leaner, and then increases as puberty approaches and body composition approaches that of adulthood. BMI-for-Age percentile charts reflect these normal, predicted changes of BMI throughout childhood<sup>7</sup>.

The community health nurse's role in BMI assessment is not to 'diagnose' weight status but to identify individuals who may require further lifestyle assessment, provide brief healthy lifestyle intervention where indicated, and to support families of children with a higher risk (obese range) to seek a more comprehensive health assessment and access more intensive support where locally available.

The following documents within the CAHS Community Health Policy Manual provide important additional background information to this BMI assessment - Child Health procedure:

- Growth birth – 18 years
- Growth faltering
- Overweight and obesity
- Body Mass Index assessment – primary school

### Key points

- Training on BMI assessment, chart plotting, sensitive communication with parents and lifestyle counselling is essential. Refer to the online training package *Talking with parents about children's weight*. **Staff are required to complete this training prior to undertaking a BMI assessment.**
- At the Universal contact 2 years, growth will be assessed using a compilation of the following assessments:
  - Weight plotted on WHO Weight 2-5 years (CHS800A-7 – girls and CHS800-9 – boys)
  - Height plotted on WHO Height 2-5 years (CHS800A-8 – girls and CHS800-10 – boys)
  - BMI-for-age calculation using height and weight measurements and plotted on CDC BMI percentile chart 2-20 years (CHS 430A/B – girls/boys)
- Growth charts linked to the 2 year old Universal contact are only applicable to children aged 2 years or older.
  - Parents should be strongly encouraged to make appointments on or soon after, their child's 2<sup>nd</sup> birthday.

- BMI cannot be assessed on children under 2 years. Children seen prior to the child's 2<sup>nd</sup> birthday should be seen again soon after the 2<sup>nd</sup> birthday to complete the growth assessment component of the Contact.
- Reviewing serial growth (length/height and weight) measurements from previous child health contacts will assist in interpreting overall growth status at the 2 year old contact.
- The support and cooperation of parents/caregivers are essential when addressing underweight, overweight or obesity in children. Although parents may be unwilling to address a weight problem initially, raising the issue may lead to further discussion in the future.
- Ideally, 3 monthly follow-ups are recommended for obese children and follow-up *within* 12 months for overweight children.
  - Community Health Nurse follow-up should primarily focus on tailoring lifestyle brief interventions to respond to the family's evolving needs and providing encouragement and support for the family as required.
    - Repeated BMI assessments are not required by the Community Health Nurse unless the obesity is severe and the family has not engaged with an alternative health service provider. This should be discussed with your line manager and/or specialist staff within the PCH Healthy Weight Service.
    - Regular BMI plotting as part of weight management progress tracking should be undertaken under the care of a medical practitioner and/or dietitian<sup>7</sup> and is not the ongoing role of the community health nurse. Refer to *Supplementary Support Options* on page 8. Nurses should use their clinical judgement and consultation with families to determine the level of support required in individual cases.
  - The frequency of contacts needs to be balanced against the severity of concern, individual's needs, parent engagement, staff capacity for weight management support and the family's engagement with other health service providers and/or intervention programs.
  - Follow-up should continue to occur as required, using locally agreed processes.
- Community health professionals should practice infection prevention and management. Hand hygiene is to be performed at all appropriate stages of the procedure.

## Equipment

- Stadiometer
- Digital weight scale
- Calculator (or automated calculation offered on electronic health record keeping system)
- Refer to *Height 2-5 years* and *Weight 2-5 years* assessment procedures for further information on equipment specifications.

## Procedure

Steps	Additional Information
<p><b>1. Conduct height assessment</b></p> <p>Plot child's height onto the gender specific WHO Height Chart 2 - 5years (CHS800A).</p>	<ul style="list-style-type: none"> <li>• For more information refer to the <i>Height assessment 2 - 5 years</i> procedure</li> <li>• Accuracy of height measurement is critical given the value is squared in the BMI calculation.</li> <li>• Ask the child to step away from the stadiometer and then stand back against it and take a second measurement. If the two measurements differ by more than 0.5cm then take a third measurement.</li> <li>• Height is the average of the two closest measurements</li> </ul>
<p><b>2. Conduct weight assessment</b></p> <p>Plot child's weight onto the gender specific WHO Weight Chart 2 - 5years (CHS800A).</p>	<ul style="list-style-type: none"> <li>• For more information refer to the <i>Weight assessment 2 - 5 years</i> procedure</li> </ul>
<p><b>3. Determine BMI for age percentile</b></p> <ul style="list-style-type: none"> <li>• Calculate BMI score.</li> <li>• Plot the BMI score onto the CDC BMI for age (2-20years) growth chart, relative to the child's age and gender (CHS430).</li> <li>• This chart can be used as a visual tool during discussions with parents as required.</li> </ul>	<ul style="list-style-type: none"> <li>• Electronic record keeping systems will generate a BMI score and percentile automatically when the client's weight and height are entered.</li> <li>• The online <a href="#">CDC BMI and percentile calculator</a> for children and adolescents is also a useful tool to generate raw BMI value, BMI percentile and corresponding weight classification. It also automatically provides some corresponding commentary on the individual's weight classification and brief guidance on what action may be recommended.</li> <li>• Manual calculation can be made on a standard calculator: <ul style="list-style-type: none"> <li><b><math>BMI = Weight (kg) \div [Height (m)]^2</math></b></li> <li>Example follows:</li> <li><b>Weight 18.2 kg Height 1.083 m</b></li> <li><b>BMI= 18.2 ÷ [1.083]<sup>2</sup></b></li> </ul> </li> </ul>

Steps	Additional Information										
	<p>BMI= <math>18.2 \div (1.083 \times 1.083)</math></p> <p>BMI= <math>18.2 \div 1.172</math></p> <p>BMI= <math>15.52 \text{ kg/m}^2</math></p>										
<p><b>4. Interpret results</b></p> <ul style="list-style-type: none"> <li>Review height and weight percentiles and any previous growth measurements available to identify any deviations or to confirm appropriate growth tracking.</li> <li>Use CDC BMI cut-points.</li> </ul> <table border="1" data-bbox="178 801 777 1081"> <thead> <tr> <th>BMI Indicator</th> <th>Percentile range<sup>7</sup></th> </tr> </thead> <tbody> <tr> <td>Underweight</td> <td>&lt; 5<sup>th</sup> percentile</td> </tr> <tr> <td>Healthy weight</td> <td>5<sup>th</sup> to &lt; 85<sup>th</sup> percentile</td> </tr> <tr> <td>Overweight</td> <td>85<sup>th</sup> &lt; 95<sup>th</sup> percentile</td> </tr> <tr> <td>Obese</td> <td>≥ 95<sup>th</sup> percentile</td> </tr> </tbody> </table>	BMI Indicator	Percentile range <sup>7</sup>	Underweight	< 5 <sup>th</sup> percentile	Healthy weight	5 <sup>th</sup> to < 85 <sup>th</sup> percentile	Overweight	85 <sup>th</sup> < 95 <sup>th</sup> percentile	Obese	≥ 95 <sup>th</sup> percentile	<p>Measuring and recording all growth variables onto growth charts helps to confirm the impact of positive parenting practices. It also assists in identification of deviations from the norm such as growth faltering or excessive weight gain.</p> <p>BMI is a screening tool and is <i>not diagnostic</i> of weight status, however it contributes to an overall clinical impression.</p> <p>Lifestyle and family history are other important components to interpreting the BMI result. See <i>Required Actions</i> for completing the assessment.</p>
BMI Indicator	Percentile range <sup>7</sup>										
Underweight	< 5 <sup>th</sup> percentile										
Healthy weight	5 <sup>th</sup> to < 85 <sup>th</sup> percentile										
Overweight	85 <sup>th</sup> < 95 <sup>th</sup> percentile										
Obese	≥ 95 <sup>th</sup> percentile										

### Required Actions

Where a deviation in serial measurements is identified and/or BMI is outside of the *Healthy Weight Range* (5<sup>th</sup> - < 85<sup>th</sup> percentile), a review of the child’s lifestyle factors should be undertaken. This will include reviewing eating patterns, food and drink selection, and sleep, physical and sedentary activity patterns. Appendix A outlines risk and protective factors for the development and maintenance of childhood obesity.

Where BMI results are outside the healthy weight range community health staff may offer healthy lifestyle brief intervention counselling with parents, using the CAH-000994 *Tips to support healthy choices (2-5 years)* parent resource.

**Clinical pathways for BMI categories are indicated as follows:**

**BMI suggests Underweight: (Less than 5<sup>th</sup> percentile)**

- Review previous growth assessment measurements if available
- Explore parent’s perception of their child’s weight status.
- Engage in conversation with parent to review any concerns for their child they may have and all factors influencing growth. This will include reviewing eating patterns, food and drink selection, sleep and physical and sedentary activity patterns (lifestyle review).

- Following the lifestyle review (and using clinical judgement if BMI is on the cusp of two weight categories), inform the parent that the growth assessment suggests their child may be below their healthy weight range.
- Reinforce healthy nutrition, physical activity, screen time and sleep practices by discussing the content of CAH-000994 *Tips to support healthy choices (2-5 years)* parent handout and other appropriate print or electronic resources.
- Support the parent to plan healthy changes for their child if indicated.
- Where growth faltering is indicated, staff should refer to the *Growth faltering* guideline
- Refer the child to appropriate health care professionals for further assessment and/or intervention, as per clinical judgement or parent request.
- Provide additional information and support to parent if required.
- If nurse concern is raised, refer to neglect protocol.

**BMI suggests Healthy Weight: (5<sup>th</sup> percentile to less than the 85<sup>th</sup> percentile)**

- Reinforce current positive lifestyle behaviours. No further action required.

**BMI suggests Overweight: (85<sup>th</sup> to less than 95<sup>th</sup> percentile)**

- Review previous growth assessment measurements if available.
- Explore parent's perception of their child's weight status.
- Engage in conversation with parent to review any concerns for their child they may have and all factors influencing growth. This will include reviewing eating patterns, food and drink selection, sleep and physical and sedentary activity patterns (lifestyle review).
- Following the lifestyle review (and using clinical judgement if BMI is on the cusp of two weight categories), inform the parent that the growth assessment suggests their child may be above their healthy weight range.
  - Inform the parent that the BMI is not diagnostic but based on their child's results, their child's weight may be above the healthy weight range. This feedback should be given with sensitivity; it may be the first time that a potential concern has been raised.
  - Reinforce healthy nutrition, physical activity, screen time and sleep practices by discussing the content of CAH-000994 *Tips to support healthy choices (2-5 years)* and other appropriate print or electronic resources.
  - Identify and agree on small achievable goals or family lifestyle changes that will have a positive impact to the child's future health and wellbeing. ***Reinforce that the aim is for the child to grow into their weight (as they grow taller) and not for weight loss.***
- **Using clinical judgement combined with BMI assessment results and lifestyle assessment, decide if referral to GP is indicated and/or other referral options that may be locally available.**

- Schedule follow-up phone call to discuss progress *within* 12 months according to parent engagement and nurse capacity. In this follow-up conversation, explore progress towards agreed goals or family lifestyle changes and offer further advice, support and referral if required. A repeat BMI assessment can be offered in 12 months if tracking has not been undertaken by an alternative health professional.
- Provide additional support as required.

**BMI suggests Obese: (Equal to or greater than the 95th percentile)**

- Review previous growth assessment measurements if available.
- Explore parent's perception of their child's weight.
- Engage in conversation with parent to review any concerns they may have for their child and all factors influencing growth. This will include reviewing eating patterns, food and drink selection, sleep and physical and sedentary activity patterns (lifestyle review).
- Following the lifestyle review (and using clinical judgement if BMI is on the cusp of two weight categories), inform the parent that the growth assessment suggests their child's weight is above the healthy weight range and may have associated health risks.
  - Discuss causes and short and long term consequences of overweight. This conversation requires sensitivity; it may be the first time that a potential concern has been raised.
  - Reinforce healthy nutrition, physical activity, screen time and sleep practices by discussing the content of CAH-000994 *Tips to support healthy choices (2-5 years)* and other appropriate print or electronic resources.
  - Identify and agree on small achievable goals or family lifestyle changes that will have a positive impact to the child's future health and wellbeing.
- **Children who have a BMI in the obese range (equal or >95<sup>th</sup> percentile) should be referred to medical practitioner and/or dietitian** for further assessment and treatment as a priority. Consider other suitable referral options (see *Supplementary support Options* further below).
  - If obesity is severe, consider referral to the PCH Healthy Weight Program (formerly known as CLASP) via medical practitioner.
  - If the child is not under medical care (due to access to services or no parent engagement), nurse follow-up is required. Nurses should use their clinical judgement, consult with their manager and/or other experienced clinician, and consult with families to determine the level of support required in individual cases.
- Where possible, refer to locally available healthy lifestyle programs or activities.
- At 3 months, make phone contact with parent to enquire on progress of referral and family lifestyle changes implemented. If initial referral has not been acted upon, offer to re-send referral.

- If parent continues to decline the referral, nurse follow-up rigour should consider obesity severity and level of parent engagement in family lifestyle modification. Document clearly the follow-up outcomes and if/when any further follow- up is planned to occur.
- For concerns regarding family engagement or neglect, consider making a report to Department for Child Protection and Family Support. Refer to [Department of Health WA - Information Sheet 8 Child obesity and Child Protection](#) for guidance. Advice should also be sought from the PCH Child Protection Unit.
- Consult with PCH Healthy Weight Program for advice and guidance if required (see *Supplementary Support Options* below).
- A repeat BMI assessment can be offered in 12 months if monitoring has not been undertaken by an alternative health professional.

## Documentation

Community health staff will document relevant findings according to local Health Service provider processes.

### Responding according to parent engagement

Parent/carer receives advice and (where appropriate) offer of referral **positively**

- Let the family know what the next steps are
- Reassure the family that you are there to help them. Suggest a follow up appointment to monitor the family's progress in reaching identified lifestyle goals and provide help and encouragement

Parent/carer does **not perceive** that their child has excess weight

- Acknowledge the difficulties in recognising excess weight
- Reassure the family that support is available; acknowledge that this is a difficult decision. Explain what the family could expect from you and/or the referral service (where indicated) and re-offer support and referral

Parent/carer is visibly upset or angry and **does not want to engage** in conversation about their child's weight

- Show acceptance of the parent or carer's wishes, reassure them that you are there to help and re-offer your support should they change their mind
- Don't force the issue (but 'leave the door open'). Be reassured that your conversation may have planted a seed that facilitates the family to accept or seek help for the issue in the future.



## Supplementary support options

In addition to the GP, support from other supplementary services may be considered.

Suitability of supplementary support services will depend on the growth status of the child and the capacity and preferences of the family. Availability of support services will be varied across the State.

Recommendations for supplementary support and actions taken should be clearly documented in progress notes.

- **Dietitian**
  - Public services - Some local health services (hospitals or community health centres) provide dietetic services for children. WACHS staff to refer to *WACHS Clinical Pathway for BMI assessments in 2-5yo and dietetic services*.
  - Private services - see the [Dietitians Association of Australia](#) website to locate private dietetic services.
- **PCH Healthy Weight Program** (formerly known as CLASP). For children and adolescents with complicated and/or significant obesity and their families. Note: Medical practitioner referral to the Healthy Weight Program is usually required. Consider mentioning PCH Healthy Weight Program on *Clinical Handover CHS663* when referring a child to a medical practitioner.
  - **Clinical advice for community health nurses:** PCH Healthy Weight Program can provide over the phone clinical advice and guidance to support community health nurses working with individual cases of concern where no suitable alternative referral options are available.
  - Contact the intake coordinator nurse on (08) 6456 1111 and follow the prompts for the Healthy Weight Service (option 4) or email [PCHHealthyWeightService@health.wa.gov.au](mailto:PCHHealthyWeightService@health.wa.gov.au).
- Triple P (Group or Seminar Series) or other locally available quality parenting programs.
- **Better Health Program** - Programs for the 2-4 year group may be available in some locations within WACHS. Phone 1300 822 953 or email [info@betterhealthcompany.org](mailto:info@betterhealthcompany.org) or visit <http://www.betterhealthprogram.org/>
- Healthy lifestyle programs or activities according to local availability.
- Community leisure and recreation services.
- Adult weight management programs (helpful if the parent is concerned about their own weight).
- Parents can be referred to some of the online resources listed at the end of the guideline for additional information and support.

<b>Related internal policies, procedures and guidelines</b>
The following documents can be accessed in the CACH Community Health Policy Manual via the <a href="#">HealthPoint</a> link or the <a href="#">Internet</a> link
Body Mass Index assessment – primary school
Growth birth – 18 years
Growth faltering
Height assessment 2 - 5 years
Overweight and obesity
Physical assessment 0 – 4 years
Universal contact 2 years
Weight assessment 2 - 5 years

<b>Related internal resources and forms</b>
The following resources and forms can be accessed from the <a href="#">HealthPoint CACH Intranet</a> link
Body Mass Index Boys (CHS430B)
Body Mass Index Girls (CHS430A)
Child and Antenatal Nutrition (CAN) Manual
Food For Kids
How children develop
Practice guide for Community Health Nurses
Tips to support healthy choices (2 – 5 years) - <i>CAH-000994</i>
Toddler tucker
World Health Organization Growth Charts (CHS800A series)

<b>Staff development</b>
<a href="#">Royal Children 's Hospital</a> - Growth Charts e-learning package
<a href="#">Talking with parents about children's weight.</a> On-line professional development resource. Better Health Company

<b>Useful external resources</b>
<b>BMI resources</b>
<a href="#">CDC BMI and Percentile calculator</a> for Children and Adolescents (ensure 'metric' selected)
<a href="#">Centers for Disease Control and Prevention</a> . About BMI for Children and Teens
<a href="#">PCH Healthy Weight Service</a> – See <i>Supplementary support options</i> for details.
<b>Parenting</b>
<a href="#">Positive parenting programs - Triple P</a>
<a href="#">Raising Children Network</a> Navigate for obesity, healthy eating, physical activity and screen-time related articles
<a href="#">Ngala</a>
<b>Food and nutrition</b>
<a href="#">Australian Dietary Guidelines</a>
<a href="#">Eat for Health</a> Australian Dietary Guidelines
<a href="#">Go for 2&amp;5</a> Fruit and veg recipes
<a href="#">Healthy Food For All - Food Sensations program</a> practical nutrition education for schools, adults (families) and communities
<a href="#">Good Food for New Arrivals</a> provides resources for both service providers and families to improve nutrition knowledge and access to healthy foods for newly arrived humanitarian and refugee families.
<a href="#">State Government of Victoria- Better Health Channel</a>
<a href="#">Why no sweet drinks for children</a> - resource for parents produced by Royal Children's Hospital Melbourne
<b>Physical activity</b>
<a href="#">Australia's Physical Activity and Sedentary Behaviour Guidelines</a> Pamphlets available- 0-5years; 5-12 years; and Families. To order phone 1800 020 103
<a href="#">Get up and Grow</a> Healthy Eating and Physical Activity for Early Childhood resources
<a href="#">Nature Play WA</a> Resources for parents and families to encourage kids to get active outdoors.
<b>Healthy Weight</b>
<a href="#">Weight Management tips for parents and carers</a> produced by Children's Hospital at Westmead, Sydney Children's Hospital, Randwick and Kaleidoscope Children, Young

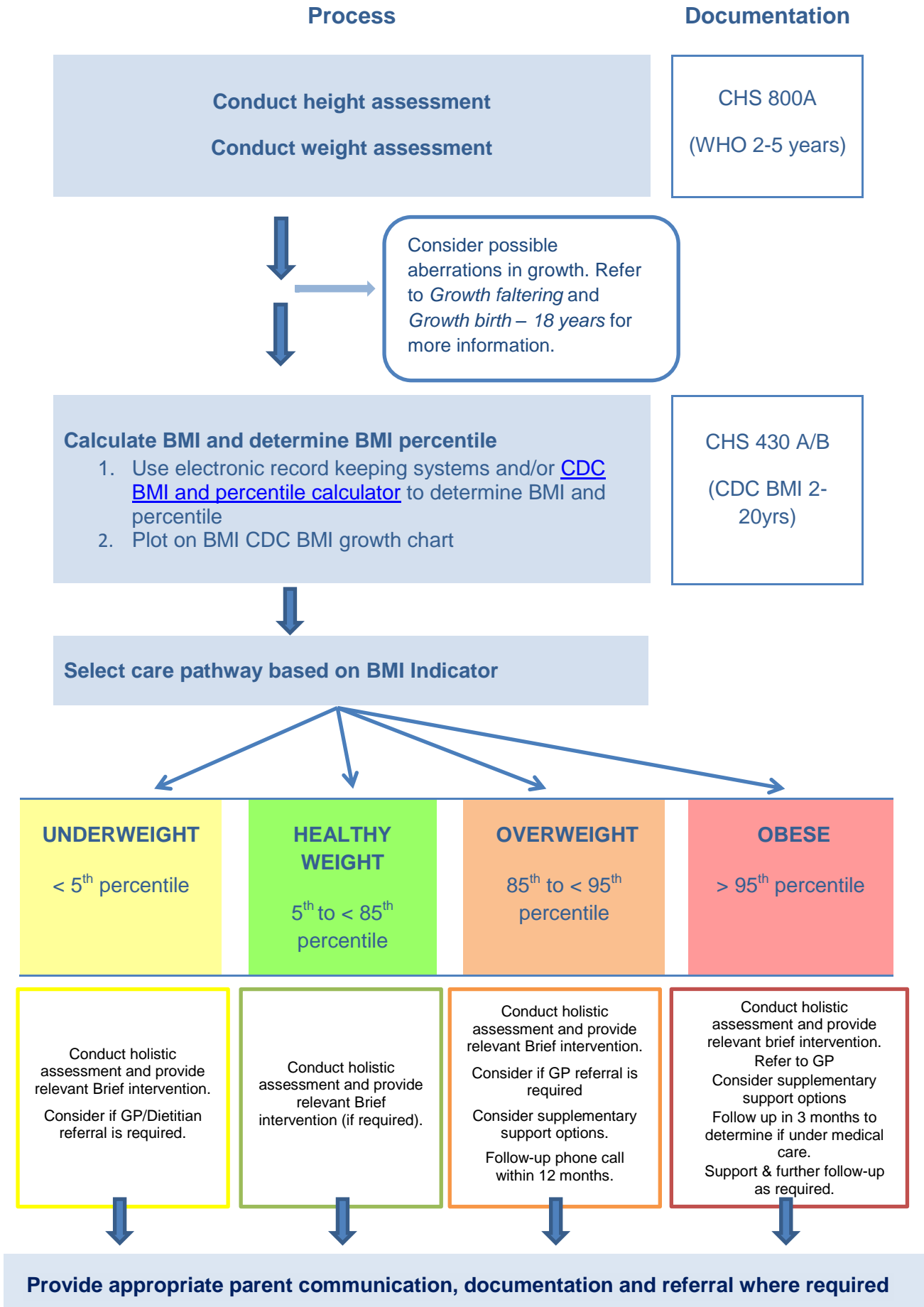
People and Families
<a href="#">NHMRC Clinical Practice Guidelines for the management of overweight and obesity in adults, adolescents and children in Australia.</a>
<a href="#">Live Lighter</a> - Western Australian developed program promoting healthy lifestyles. Whilst the program targets adults, many of the tips, tools, resources and recipes can be used for families with children.
<b>Other</b>
<a href="#">Guidelines for Protecting Children 2015 (Revised 2017)</a>

## Appendix A: Risk and Protective Factors for the Development and Maintenance of Childhood Obesity

GENETIC MAKEUP	CHILD DIETARY INTAKE	FAMILY ENVIRONMENT	PARENTING
<p><i>Risk Factors</i></p> <ul style="list-style-type: none"> <li>• Parental Obesity</li> <li>• Ethnicity</li> <li>• Conservative metabolism (tendency to store energy)</li> <li>• Certain rare endocrine disorders (eg. Prader-Willi Syndrome).</li> </ul> <p><i>Protective Factors</i></p> <ul style="list-style-type: none"> <li>• 'Active' metabolism (tendency to expend energy)</li> </ul>	<p><i>Risk Factors</i></p> <ul style="list-style-type: none"> <li>• High intake of energy dense, nutrient poor foods and fluids (e.g. fast foods, soft drinks)</li> </ul> <p><i>Protective Factors</i></p> <ul style="list-style-type: none"> <li>• High intake of low GI foods (e.g. whole grains, legumes)</li> <li>• High intake of dairy foods (e.g. low fat milk, yoghurt)</li> <li>• Eating a healthy breakfast</li> </ul>	<p><i>Risk Factors</i></p> <ul style="list-style-type: none"> <li>• Family has few economic resources</li> <li>• Parent lacks nutritional knowledge</li> <li>• Parent does not recognise childhood obesity or is not concerned about it</li> <li>• Parent has unhealthy eating habits (e.g. regular dieting)</li> <li>• Parent has a sedentary lifestyle (e.g. relies on TV for recreation) Parent works long hours Energy dense foods are available and easily accessible in the home.</li> </ul> <p><i>Protective Factors</i></p> <ul style="list-style-type: none"> <li>• Parent has an active lifestyle</li> <li>• Meals are eaten as a family</li> <li>• Fruit and vegetables are available and easily accessible in the home</li> <li>• Child has access to safe outdoor playing areas</li> <li>• Parent and child engage joint physical activities</li> <li>• Parent supports access to activity based sessions for child</li> </ul>	<p><i>Risk Factors</i></p> <ul style="list-style-type: none"> <li>• Restrictive child-feeding practices (i.e. parent rarely gives child choices about what to eat and how much)</li> <li>• Permissive child-feeding practices (e.g. parent accommodates child's neophobic responses)</li> <li>• Coercive parenting style (e.g. parent shows anger when child misbehaves)</li> <li>• Inconsistent parenting style (e.g. parents fails to follow through with discipline)</li> <li>• Low self-efficacy (i.e. parent lacks confidence in managing child's weight related behaviour)</li> </ul> <p><i>Protective Factors</i></p> <ul style="list-style-type: none"> <li>• Parent monitors child food intake and activity patterns</li> <li>• Parent reinforces healthy behaviours (e.g. through praise and modelling)</li> <li>• Parent sets firm limits about food and activity</li> </ul>
EARLY GROWTH & DEVELOPMENT	CHILD ACTIVITY PATTERNS		
<p><i>Risk Factors</i></p> <ul style="list-style-type: none"> <li>• High birth weight</li> <li>• Early adiposity rebound</li> <li>• Formula feeding</li> </ul> <p><i>Protective Factors</i></p> <ul style="list-style-type: none"> <li>• Breastfeeding</li> </ul>	<p><i>Risk Factors</i></p> <ul style="list-style-type: none"> <li>• High levels of sedentary activity (e.g. &gt;1hr screen time per day)</li> <li>• Poor sleep patterns (e.g. poor routines or sleep apnoea)</li> </ul> <p><i>Protective Factors</i></p> <ul style="list-style-type: none"> <li>• Physically active for at least 3 hours throughout each day</li> </ul>		

Adapted from Lifestyle Triple P Facilitator Training Participant Notes. 2009. The University of QLD and Triple P International.


**APPENDIX B: Growth assessment - child health**



## References

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This document can be made available in alternative formats on request for a person with a disability.

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