



PROCEDURE	
<b>Height assessment 2 years and over</b>	
<b>Scope (Staff):</b>	Community health staff
<b>Scope (Area):</b>	CAHS-CH, WACHS
<b>Child Safe Organisation Statement of Commitment</b> The Child and Adolescent Health Service (CAHS) commits to being a child safe organisation by meeting the National Child Safe Principles and National Child Safe Standards. This is a commitment to a strong culture supported by robust policy documents to ensure the safety and wellbeing of children at CAHS.	

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

## Aim

To correctly measure and interpret the standing height of children aged two years and over.

## Risk

The accurate measuring of height is an integral part of growth assessment. Failure to undertake height assessments or obtaining inaccurate height measurements may delay the identification of significant growth deviations for a child.

## Background

Assessment of growth identifies whether a child has age appropriate growth or is deviating from normal parameters. For assessment of growth to be meaningful, serial measurements should be taken and plotted onto a growth chart over a period of time.<sup>1</sup> Growth assessment is especially important during early childhood to detect and monitor slow or excessive growth, check the impact of illness and treatment, and to identify or monitor those at higher risk.<sup>2</sup>

Along with growth measurement; the child should always be assessed according to their overall health and wellbeing, and developmental progress. Consideration of, growth trajectory (as indicated on growth charts), child's history and clinical judgement are required to determine whether further review or referral is required<sup>3-5</sup>

## Key Points

- To be performed by community health staff with appropriate training and assessment skills.
- Height assessment is routinely undertaken as a component of the *Universal contact 2 years*.
- Height assessment should also be completed as part of a holistic growth assessment when concerns regarding growth or any other identified risk are raised by nurse or parent at any Universal Plus contact over two years of age.

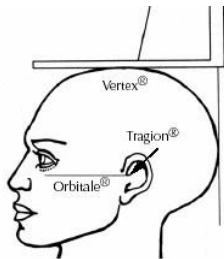
- Height status in children over the age of two years should be plotted and interpreted using age and sex specific reference values.<sup>6</sup>
- Standing height measurement is required for children over the age of two years.
- For children close to two years of age, standing height may be measured rather than recumbent length, if appropriate for the individual. Note: if BMI is to be calculated, children must be two years of age or older and standing height must be used.
- Height measurement is required to complete BMI assessment at the School Entry Health Assessment (SEHA) and any Universal plus growth assessment in the School Health setting, however plotting of height on height specific growth charts is not routinely required in the school setting. Refer to *Body Mass Index assessment – Primary School*.
- To ensure height measurement accuracy, reliable and sensitive equipment should be used along with good technique. Small errors during the measuring, recording or plotting can have a significant impact on the child’s growth assessment results and subsequent care planning.
- Community health nurses must follow the organisation’s overarching Infection Control policies and perform hand hygiene in accordance with WA Health guidelines at all appropriate stages of the procedure.

## Equipment

- Height measurer consisting of a vertical metric rule or a correctly installed stadiometer (‘pull down’ measure) designed for the intended purpose.
  - A height measurer consists of a vertical board with an attached metric ruler and a moveable horizontal headboard.
  - Where ever possible, use a pull down headboard that is spring loaded to apply sufficient pressure to compress hair.
  - There should be a non-compressible flat even floor base on which the child stands.
  - The graduations on the height measurer should be at 0.1 cm intervals and the metric rule should be at least 220 cm.

## Procedure

Steps	Additional Information
<p><b>Explanation</b></p> <p>Explain the procedure to the child and parent (when present). Allow sufficient time for discussion of concerns.</p>	<p>In child health setting, encourage parent support and involvement with the procedure where possible.</p>

<p><b>Preparation</b></p> <ul style="list-style-type: none"> <li>• Explain the stadiometer/height measurer to the child and how you are going to use it to see how tall they are.</li> <li>• Ask the child (and assist if required) to remove their hat, shoes and hair/head accessories that may interfere with measure.</li> <li>• Position the child under the stadiometer facing away from the equipment or wall.</li> </ul>	<p>Use of a laminated template showing an outline of two feet may help orient the child to where to stand.</p> <p>If the child is hesitant, measure the parent first if present.</p> <p>Cultural dress should not be removed but must be noted if it impacts on results.</p>
<p><b>Steps</b></p>	<p><b>Additional Information</b></p>
<p><b>Measuring</b></p> <ul style="list-style-type: none"> <li>• Ask or assist the child to stand; with bare feet close together, legs straight, arms at sides, eyes straight ahead and shoulders relaxed.</li> <li>• Ask the child to take a big breath in and out to relax.</li> <li>• Check that their arms are still by their sides, knees straight, heels on the floor and shoulders relaxed.</li> <li>• Check there are three contact points between the body and the stadiometer; shoulder blades, bottom and heels.</li> <li>• Bring the measuring device down to rest on the child's head to obtain height measurement.</li> <li>• Ask the child to step off and step back onto the stadiometer and record a second measurement. Take an average of these two measurements.</li> </ul>	<p>Foot markers are useful to assist in correct placement of the child's feet.</p> <p>The child's head must be positioned in the Frankfort plane. The Frankfort plane is achieved when the lower edge of the eye socket (Orbitale) is in the same horizontal plane as the notch above the flap of the ear (Tragion).</p>  <p>(Reproduced with permission from Marfell-Jones et al., 2006).</p> <p>If the two measurements differ by 0.5 cm or more, take a third measurement and calculate an average from the two closest measurements.</p>

<p><b>Recording</b></p> <ul style="list-style-type: none"> <li>Record the height to the nearest 0.1cm.</li> <li>Record that standing height/stature has been measured.</li> <li>Document any factors which may have interfered with accuracy of height measurement.</li> </ul>	<p><u>Child health setting:</u></p> <ul style="list-style-type: none"> <li>Plot the height on the appropriate height for age and gender chart</li> </ul> <p><u>Primary School setting:</u></p> <ul style="list-style-type: none"> <li>Record the height on CHS409-2 and CHS409-6</li> </ul>
<p><b>Interpretation</b></p> <p><u>Child Health setting:</u></p> <ul style="list-style-type: none"> <li>Interpret the growth chart with regard to the pattern of growth trajectory.</li> <li>Discuss findings with parents and expected growth patterns.</li> </ul> <p><u>Primary School setting:</u></p> <ul style="list-style-type: none"> <li>Rather than a stand alone assessment, height is measured as a component of the BMI calculation. See <i>BMI assessment procedure – primary school</i>.</li> </ul>	<p>Interpretations of measurements are to be done in conjunction with a holistic assessment.</p> <p>Serial measurements showing changes in the growth trajectories or unexpected movement between percentile lines requires additional assessment and/or referral.</p> <p>For more information refer to the <i>Growth birth – 18 years, Growth faltering and Overweight and obesity guidelines</i>.</p>

### Referral pathway

If required, refer to a General practitioner.

### Documentation

Community health staff will document relevant findings according to CAHS-CH and WACHS processes.

## References

1. Dietitians of Canada, Canadian Paediatric Society, The College of Family Physicians of Canada, Community Health Nurses of Canada. Promoting optimal monitoring of child growth in Canada: Using the new World Health Organization growth charts – Executive Summary. *Paediatrics & Child Health*. 2010;15(2):77-9. PubMed PMID: PMC2865939.
2. World Health Organization. Training course on child growth assessment Geneva: World Health Organization; 2006. Available from: [http://www.who.int/nutrition/publications/childgrowthstandards\\_trainingcourse/en/](http://www.who.int/nutrition/publications/childgrowthstandards_trainingcourse/en/).
3. National Health and Medical Research Council. Infant feeding guidelines: information for health workers. Canberra: NHMRC, 2012. Available from: [http://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/n56\\_infant\\_feeding\\_guidelines.pdf](http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/n56_infant_feeding_guidelines.pdf).
4. Freeman JV, Cole TJ, Wales JKH, Cooke J. Monitoring infant weight gain: Advice for practitioners. *Community Pract*. 2006;79(5):149-51.
5. Smith Z. Faltering Growth. 2008. In: *Clinical Paediatric Dietetics* [Internet]. Wiley Online Library; [556-65].
6. National Health and Medical Research Council. Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia. Melbourne: National Health and Medical Research Council; 2013.

## Related policies, procedures and guidelines

The following documents can be accessed in the **Clinical Nursing Manual** via the [HealthPoint](#) link, [Internet](#) link or for WACHS staff in the [WACHS Policy](#) link

Body Mass Index assessment – child health

Body Mass Index assessment – primary school

Growth birth – 18 years

Growth faltering

Overweight and obesity

Physical assessment 0 – 4 years

Universal contact guidelines

Weight assessment 2 years and over

The following documents can be accessed in the [CAHS-CH Operational Manual](#)










Hand Hygiene

Related CAHS-CH forms
The following forms can be accessed from the <a href="#">CAHS-Community Health Forms</a> page on HealthPoint
Body Mass Index Boys (CHS430B)
Body Mass Index Girls (CHS430A)
World Health Organization Charts (CHS800A series)

Related CAHS-CH resources
The following resources can be accessed from the <a href="#">CAHS-Community Health Resources</a> page on HealthPoint
Child and Antenatal Nutrition (CAN) Manual
How children develop
Practice Guide for Community Health Nurses

Related external resources
<a href="#">Royal Children's Hospital</a> Child growth e-learning package

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

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	Child Safe Standards: 1, 3, 4, 7, 10		

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