Aim
To correctly measure and interpret the weight of infants and children up to 2 years of age.

Risk
The accurate measuring of weight is an integral part of growth assessment. Failure to undertake weight assessments or obtaining inaccurate weight 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. Growth assessment is especially important during infancy to detect and monitor slow or excessive growth, check the impact of illness and treatment, and to identify or monitor those at higher risk. Serial growth measuring is relevant in the first two years of life.

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

The normal growth velocity pattern in infants includes a rapid increase in growth within the first 4 – 6 months of life, when an infant generally doubles their birth weight. By 12 months of age; an infant’s weight has generally tripled from birth, and tapers off from the initial rapid increase.

* In this procedure, the term 'parent' includes the caregiver
Key Points

- To be performed by community health staff with appropriate training and assessment skills.

- Assessment of weight is offered and conducted at the 0-14 days, 8 week, 4 month, 12 month and 2 year universal scheduled contacts.

- For children receiving the Enhanced Aboriginal Child Health Schedule, weight assessment is offered and conducted at each scheduled contact before 5 years of age.

- Weight assessment should also be offered and conducted at any Universal plus contact or drop-in sessions, where there is a parent and/or professional concern regarding growth or any identified risk.

- Weight status in infants and children must be assessed using age and sex specific reference values.\(^5\)

- Nutrition and health status affect weight and overall growth and development.\(^6\)

- Weight is most accurately measured without clothing up to the age of two.

- Weight can be measured with light clothing (remove shoes) for a two year old child.

- Fenton Preterm Growth Charts can be used from 20-40, weeks gestation or up to 50 weeks of age, as these babies may not be old enough to be plotted from week 0 on the WHO growth charts.\(^7\)

- To ensure weight measurement accuracy, reliable and sensitive equipment must be used along with good technique. Small errors during the measuring, recording or plotting can have a significant impact on the infant and or child’s growth assessment.

- Scales must be cleaned after use for each child, according to manufacturer’s recommendations and organisational policy guidelines.

- Community health staff are to follow policy and procedures relating to infection control and perform hand hygiene in accordance with WA Health guidelines at all appropriate stages of the procedure.

Equipment

- Calibrated digital scales with a motion detector and stabiliser.

- Scales must be checked at least annually, using the process outlined in Appendix 1. Manufacturer’s guidelines must be followed with regard to calibration, servicing and transportation of scales.

- The scales must be capable of weighing up to 20kg and be large enough to support a 2 year old child. The scales must be capable of measuring 5g increments.

- Other devices, such as for stature/length measurement, must not be attached to the scales.
## Procedure

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<tr>
<th>Steps</th>
<th>Additional Information</th>
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| **1. Explanation**  
• Explain the procedure to the parent and the child where relevant. Allow sufficient time for discussion of parent concerns. | Encourage parent support and involvement with the procedure. |
| **2. Preparation**  
• Place a sheet/paper towel on the scale.  
• Child will be undressed and nappy removed (if under 2 years). |  
| **3. Measuring**  
• Turn on scale and ‘tare’ to zero.  
• Ask parent to place child on the scales centrally so that weight is evenly distributed. | A child under 2 years who can stand independently may be weighed using either infant or platform scale |
| **4. Recording**  
• Follow the manufacturer’s guide to read the weight recording (some scales may take time to give a stable reading).  
• Record weight to the nearest 10 grams (0.01kg).  
• Plot result on the appropriate weight for age and gender growth chart.  
• Use dots to plot but do not join the dots with a line.  
• Document if the child is in plaster, a harness, or any other item unable to be removed, which may impact on results.  
• Infants born between 37 and 40 weeks should be plotted on the WHO birth to 2 year growth charts. The actual age for these infants commences at birth. Growth measurement plotting begins at birth at “0” and continues according to actual age.  
• Infants born < 37 weeks gestation | Measuring and recording weight onto growth charts helps to confirm the impact of positive parenting practices.  
Age is plotted in completed weeks from birth until age 3 months; in completed months from 3 to 12 months; and then in completed years and months.  
A child born before 37 completed weeks gestation is considered preterm. Once a corrected age of 40 weeks is reached, the WHO standards can be used to monitor ongoing growth. Corrected age should be used until 2 years of age. If the child catches up before this then actual age can be used. |
Weight assessment 0-2 years

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<td>should be plotted onto the WHO birth to 2 years growth charts with their age corrected for their prematurity until 2 years of age.</td>
<td>Additional assessment should be in place for children where weight is less than 3rd centile or greater than 97th centile, although they do not necessarily indicate a problem.</td>
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<td>Additional assessment and possible referral should occur when the weight trajectory tracks downwards or upwards within or across a percentile.</td>
<td>Staff should refer to the Growth in childhood, Growth faltering or Overweight and obesity in young children guidelines if deviations in growth are suspected.</td>
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5. Interpretation

- Interpret the growth chart with regards to the pattern of growth trajectory.
- Identify tracking changes within or across percentiles.
- Discuss findings and growth patterns with parents.

Referral pathway

Additional referral to a dietitian, internal breastfeeding services or lactation consultant may be considered, dependent on individual requirements and local area availability.

If required, refer to a medical practitioner for further assessment.

Documentation

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

References

7. Sharma A, Metzge.R. University of Manitoba, Department of Paediatrics and Child Health Available from http://www.ucalgary.ca/fenton/

### Related internal policies, procedures and guidelines

The following documents can be accessed in the Community Health Manual via the HealthPoint link or the Internet link

- Breastfeeding deviations from normal
- Breastfeeding assessment guide
- EACHS contact guidelines
- Growth in childhood
- Growth faltering guideline
- Lactation Consultant assessment
- Neglect guideline
- Overweight and obesity in young children
- Physical assessment 0-4 years
- Universal contact schedules

### Related internal resources and forms

The following resources and forms can be accessed via the HealthPoint link

- Weight/length 0-2 years
- WHO charts 0-6 months
- Practice guide for Community Health Nurses 2017
- Fenton Growth Chart (external link)

### Useful resources (External)

Royal Children’s Hospital Melbourne Child Growth learning resource
Weight assessment 0-2 years

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<table>
<thead>
<tr>
<th>Document Owner:</th>
<th>Senior Portfolio Policy Officer</th>
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<td>Reviewer / Team:</td>
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<tr>
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<td>CACH/WACHS Community Health Clinical Nursing Policy Governance Group</td>
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<td>Endorsed by:</td>
<td>Executive Director CACH</td>
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<td>Standards Applicable:</td>
<td>NSQHS Standards: 1.7, 1.8</td>
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Appendix 1: Routine checking of baby scales

**Key points:**

- Routine checking of scales must be conducted at least annually.
- Scales must also be checked each time the battery is replaced, and wherever there is professional concern.
- Staff must comply with health service provider OSH guidelines for all manual handling tasks.
- Note: Manufacturer’s recommendations must be followed with regard to transportation, servicing and calibration.

**Equipment**

Set of standard weights: 100g, 1000g and 5000g.

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| 1. Test the zero set:  
  - This should read zero +/- 1 unit | |
| 2. Check the accuracy of the 100g weight:  
  - Place the 100g weight on the scales.  
  - It should read 100.0g +/-0.5g. | |
| 3. Check tare function:  
  - With the 100g weight still on scales, press ‘tare’ operation.  
  - It should read 0.0g +/- 0.1g | |
| 4. Check accuracy of 1000g:  
  - Place the 1000g weight on the scales.  
  - It should read 1000g +/-5g. | |
5. Check accuracy of 5000 grams:
   - Remove 1000g weight and press 'tare' to reset.
   - Place the 5000g weight on scales.
   - It should read 5000 +/- 25g.

6. If there is discrepancy in readings, repeat the test.
   - If discrepancy persists on retest, send equipment for repair.

7. Record date of check and complete Annual Baby Scale Check Certificate.

8. Record date of battery change.

| Unsuccessful check – Scales are to be taken to your base & arrangements will be made for repair/replacement. |

Weight assessment 0-2 years