



Growth measuring technique – under 2 year olds

Accurate measuring and weighing using standard techniques and equipment is needed for best practice growth assessment. Equipment should be calibrated and serviced according to manufacturer's advice

Head circumference

Measurement of head circumference is important in infants as it allows detection of abnormalities of head growth, which are usually due to non-nutritional factors.

Equipment

Head circumference should be measured using a flexible, non-stretchable measuring tape or disposable paper tape

- ensure the tape is clean after each use
- replace the plastic tape at least yearly, or more often if needed.
- 0.5 – 1.0 cm width and 0.1 cm increments

Preparation

Sit the child on the carer's lap facing you. Very young infants may be measured lying down.

Procedure

Place the tape around the head at points just above the eyebrows, above the ears and around the occipital prominence at the back of the head

Pull the tape gently to compress the hair

Recording

- Record head circumference to the nearest 0.1 cm
- Plot on the WHO Head circumference growth chart

Weighing children less than 2 years

Equipment

- Use a levelled pan scale
- Either high quality electronic digital or beam balance
- Portable or 'fixed' options are suitable
- Scale should weigh up to 20 kg, in 0.01 kg (10 gm) increments
- Tray needs to be large enough to support children up to 2 years of age
- Motion detector and stabilizer
- No length or stature device should be attached because they do not have a stable platform.
- Clean the scales regularly

Service the scale (including calibration) according to manufacturers' guidelines. This is usually annually or more frequently if the scales are moved regularly; or there are concerns about accuracy

Preparation

- Place a sheet/paper towel on the scale
- Child is undressed with nappy removed

Procedure

- Turn on scale and 'tare' to zero



- Ask the parent to place the baby in the centre of the scale and ensure that weight is evenly distributed
- Weigh with parent / carer on a platform scale if unable to weigh alone. This can be done either using a scale which can be 'zeroed' after the parent /carer stands on them (a 'taring' scale) or by subtraction as follows:

For example: 60 kg parent / carer and 6.5 kg child.

1. Weigh parent /carer and record weight = 60kg
2. Weigh parent / carer with child = 66.5 kg
3. Difference is the weight of the child. e.g.; $66.5 - 60 = 6.5$ kg

Recording

- Wait until the scales settle at a reading
- Record weight to the nearest 10grams
- Make a note if the child is in plaster, harness or any other item unable to be removed.
- Plot on the WHO weight for age growth chart

Children less than 2 who can stand without assistance may be weighed on either infant or platform scale.

Length measurement for children less than 2 years

Equipment

- Length is measured in the recumbent position using an infantometer (infant length board) designed for the purpose
- The board should have a firm, flat horizontal surface with a measuring tape in 1 mm (0.1 cm) increments
- The tape or measurements should be fixed, and easily read
- The device has a fixed head-board at right angle to the tape
- And a smoothly-moving foot-board perpendicular to the tape

Preparation

Remove the child's shoes and socks if applicable

Procedure

- Ask the parent /carer to place the child on the length-board
- The child should be facing vertically upwards with the crown of the head firmly on the headboard
- Ensure the child's body and pelvis are straight along the measuring device
- Parent holds the child's head against the immovable head-board
- A second person straightens both of the child's legs, holds the feet with toes pointing directly up and moves the foot-board into position against the child's feet

Recording

- Record length to the nearest 0.1 cm.
- Complete the measurement quickly
- Plot length on the WHO length chart
- Record whether length or height / stature has been measured because length is greater than height / stature by approximately 1- 2 cm.