

Anthropometry

Remember that anthropometry is the measurement of the size of the body. In WIC we measure length, height, and weight. Standard techniques for performing these measurements follow in the next few pages.

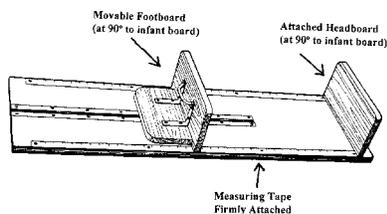
Length

Length is different than height in that length is measured while the participant is lying down. Height is measured while the participant is standing up. These two measures are not interchangeable. When standing up the backbone is compressed differently than when lying down. Therefore a person's height is usually different than their length. Length should always be plotted on a graph designed for length while height should always be plotted on a graph designed for height.

Infants and children up the age of 2 years (including the day of their second birthday) should have their length measured rather than height. Height is used after the child turns two years of age (once the child is two years and one day of age). The ASPENS system is designed to assume that any measurement of length/height is a length until the child is two years of age. Any value entered after the child is two years of age (two years and one day) ASPENS assumes the value is a height. If a height (instead of a length) is entered before the child is two years and one day of age ASPENS will assign incorrect percentiles for height/length for age.

Equipment

An infant measuring board with a rigid headpiece and a movable footpiece is recommended. The footpiece must form a 90 degree angle with the measurement surface. All edges of the board, headpiece, and footpiece must be smooth and finished. Measurements should be readable to the nearest 1/8 inch.



Technique



Two people are required to measure length. Any clothing which interferes with the measurement should be removed. Children two years of age or younger are measured supine (lying down on their back).

1. An infant or child is laid on his back on the measuring board.
2. One person (could be the mother) holds the infant's head firmly against the headboard (infant's eyes should be pointed directly at the ceiling).
3. The second person brings the infant's knees together and extends the infant's legs; one of the examiner's hands should rest on the infant's knees to prevent them from spreading or flexing while the other hand brings the movable foot board to rest firmly against the infant's heels (toes pointed upward).
4. The length is read to the nearest 1/8 inch.
5. The measurement is recorded on the growth grid for boys or for girls birth to 36 months.
6. The information is recorded in the infant's ASPENS record (WICPS105 Update Infant/Child Data).

If a measuring board is not available, the following procedure may be used:

1. Securely attach a steel measuring tape to the top edge of a table. (Steel tape measures are preferable to cloth, plastic, or fiberglass as they do not stretch.)
2. Create a right angle by securing a board to the end of the table. This forms a stationary headboard.
3. Lay infant on his back next to the measuring tape; the top of his head should be against the headboard and across from the "0" marking on the measuring tape.
4. Proceed as in step #3 when using a regular infant measuring board. Two people should be holding the infant who is lying on his back. Legs should be extended, toes pointing upward. A portable footboard that makes a right angle with the board should be used to mark the bottoms of the feet.
5. Record length to the nearest 1/8 of an inch where the heels touch the footboard.

Measurements of length without a standard infant measuring board should be rare. All WIC clinics are equipped with measuring boards. If a board is not available talk to your clinic supervisor or call your State nutrition consultant. Measurements without a board are limited to times while a clinic is waiting for a new board or an unusual situation when an infant or child must be measured outside of a clinic.

Maintenance

The infant measuring board needs to be kept clean with soap and water. It should be checked monthly to ensure that joints have not loosened, that edges have not been damaged, or that the board does not show other signs of wear. The footboard should be checked monthly and replaced if it no longer creates a right angle.

Calibration

The measuring board should be compared at least yearly against a metal tape measure. The calibration of the board should also be checked whenever the board has been moved, kicked, abused or adjusted.

#2 Practice!



1. Until what age should a child's length instead of height be measured?
 - A. _____ 3 months
 - B. _____ 6 months
 - C. _____ 1 year
 - D. _____ 2 years
 - E. _____ 3 years

2. A child who is exactly two years of age should be measured lying down (length) or standing up (height)
 - A. Length
 - B. Height

3. It is difficult for one person alone to obtain an accurate length measurement of an infant.
 - A. True
 - B. False

4. Using a measuring board is less accurate than using a measuring tape attached to a table.
 - A. True
 - B. False