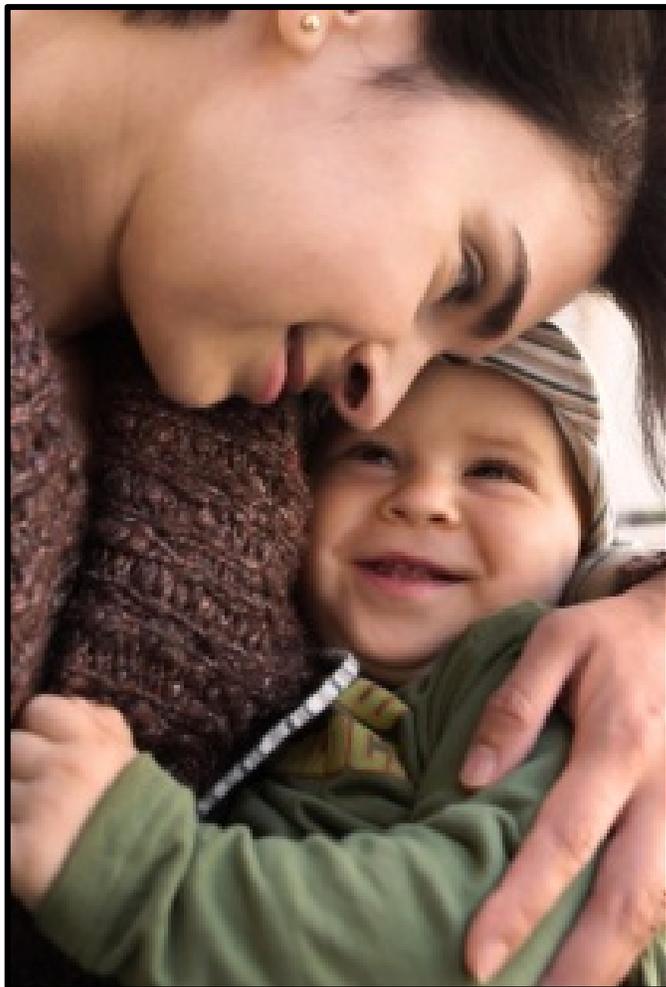




IDAHO DEPARTMENT OF HEALTH & WELFARE
DIVISION OF PUBLIC HEALTH

Idaho WIC Training **Anthropometrics**



What Will You Learn?

Measuring the heights, weights, and lengths of women, infants, and children is an excellent tool for assessing development. These measurements are an important step towards helping staff determine if a participant has a potential health risks. The learner will understand and demonstrate the importance of taking extremely accurate and precise measurements, and interpretation of the measurements including how to discuss measurement results with a WIC participant or responsible adult.

Instruction Level

Prerequisite for taking the Anthropometrics course: None

Items Needed for This Course

- Access to the online Idaho WIC Policy Manual.
- Growth Charts and Prenatal Weight Gain Charts for all ranges of Pre-Pregnancy BMI. The charts are located in the Idaho WIC Policy Manual, Computer Down Kit.
- **The links for the Job Aids in the online Anthropometric Course are inactive. Please access the [Idaho WIC website](#) to locate the Job Aid's in the *Training* section under *Staff* and the *Course Companion Manual* located at the beginning of the online course (*Resources* tab).**

Recommended Time

- Approximate time it takes to complete the online Anthropometric LMS course: 1-2 hours
- Approximate time it takes to complete the face-to-face activities and discussion: 3-4 hours

Module 1: Anthropometric Measurements

Learner's Steps:

Begin the LMS Anthropometrics Course. Please complete the steps in the following order:

- Log onto <https://id.train.org/DesktopShell.aspx>
- In the search box type "Idaho WIC", select "Anthropometric Online Course – Idaho WIC"
- Register for the course and complete the Anthropometrics Pre-Test.
- Open the Anthropometrics Online Course.
- Complete Module 1: Anthropometric Measurements
- Complete Anthropometrics activities 1, 2, 3, 4, 5, and 6, either individually or with the other learner(s). Some activities require the presence of your trainer. Please meet with your trainer prior to beginning those activities.
- Meet with your trainer to discuss the Anthropometric Measurements Module and complete the discussion sections for activities 1, 2, 3, 4, 5, and 6.



Complete Activity 1 in your Activities Packet

Technique for measuring an infant's recumbent length on a measuring board (Module 1, slides 19-23):

- Before measuring, have the caregiver remove shoes and any heavy clothing the infant might be wearing.
- Make sure a paper liner is placed onto the board, and the infant's diaper/pull-up is dry. Have the caregiver change the diaper, if necessary.
- Since the headboard needs to rest flat against the infant's head, make sure anything like hair clips or hats are removed. Some hairstyles, like braids, can also prevent the headboard from resting flat, causing an inaccurate measurement. Under these circumstances, have the caregiver do their best to flatten the hair. If the caregiver is unable to do so, record it in the chart.
- The caregiver will then gently place the infant flat on his back and hold the infant's head firmly against the headboard by gently cupping their hands over the infant's ears. The WIC employee can then bring the infant's legs together by holding both of the infant's ankles with one hand. Use your hand and arm to firmly, but gently, push down on the legs to straighten them out.
- Make sure the infant's head is flat against the headboard, and both legs are straight and feet are flat against the footboard, as this will ensure an accurate measurement. You can then slide the footboard flat against the bottom of the infant's feet using your free hand.
- Make a note of this measurement.
- Check the measuring board manufacturer's instructions to see if two measurements are required to ensure accuracy. If yes, move the footboard out. Recheck the infant's position to make sure the infant's head is flat against the headboard and the legs are straight, and then reposition the footboard. Make sure the infant's feet are flat before taking the second measurement. These two measurements need to be within ¼ inch of each other. If they are not, take a third measurement and average the two closest measurements.

- Enter the final value into the WIC computer system.
- Note: Since infants are not comfortable in this measuring position, they might become fussy or cry. Stay patient and focus on getting accurate measurements. With time and practice you will perfect their ability and become very skilled at this technique.

Technique for measuring an infant's weight on an infant Balance Beam Scale (Module 1 slides 8-9)

- Before weighing, have the caregiver take off the infant's clothes which will affect the weight, such as shoes, pants, jackets, sweaters, or hats. A t-shirt or onesie and dry diaper are fine.
- Have the caregiver check the infant's diaper/pull-up and change it, if needed, as a wet/full diaper could weigh up to two pounds.
- Make sure a paper liner is placed onto the scale before weighing, and the upper and lower counterbalance weights are at the far left at zero.
- Have the caregiver gently place the child onto the center of the scale. Younger infants should be measured lying down. You may consider weighing older infants sitting up, so they fit comfortably in the center of the scale.
- Make sure the infant does not hang onto the caregiver nor can the caregiver hold or touch the infant; also the infant cannot touch the sides of the scale, and all of the infant's body must be within the scale's tray, as this will affect the weight.
- Move the lower weight over to the right until the indicator arm drops down. You can then move the smaller weight over to the right, until the indicator arm balances in the center.
- Make a note of the measurement.
- Check the scale manufacturer's instructions to see if two measurements are required to ensure accuracy. If yes, have the caregiver remove the infant from the scale. Return the weights to their zero positions and have the caregiver place the infant back onto the scale. Once again, make sure the infant does not hang onto the caregiver nor can the caregiver hold or touch the infant; also the infant cannot touch the sides of the scale, and all of the infant's body must be within the scale's tray, as this will affect the weight. Move the lower weight over to the right until the indicator arm drops down. You can then move the smaller weight over to the right, until the indicator arm balances in the center. Record this measurement to the nearest one ounce. These two measurements need to be within one ounce of each other. If they are not, take a third measurement, and use the average of the two closest measurements.
- Enter the final value into the WIC computer system.

Technique for measuring an infant's weight on an infant Electronic Scale (Module 1, slides 8-13):

- Before weighing, have the caregiver take off the infant's clothes which will affect the weight, such as shoes, pants, jackets, sweaters, or hats. A t-shirt or onesie and dry diaper are fine.
- Have the caregiver check the infant's diaper/pull-up and change it, if needed, as a wet/full diaper or pull-up could weigh up to two pounds.
- Make sure a paper liner is placed onto the scale before weighing, and the scale is turned on and set to zero.
- Have the caregiver gently place the child onto the center of the scale. Younger infants should be measured lying down. You may consider weighing older infants sitting up, so they fit comfortably in the center of the scale.

- Make sure the infant does not hang onto the caregiver nor can the caregiver hold or touch the infant; also the infant cannot touch the sides of the scale, and all of the infant's body must be within the scale's tray, as this will affect the weight.
- Depending upon the type of electronic scale your clinic uses, this measurement will be displayed in pounds and ounces or pounds and tenths of a pound or kilograms and grams.
- Make a note of the weight, and have the caregiver remove the infant from the scale. This will cause most electronic scales to reset to zero.
- Check the scale manufacturer's instructions to see if two measurements are required to ensure accuracy. If yes, repeat the process to obtain a second weight. These two measurements need to be within four ounces of each other. If they are not, take a third measurement, and use the average of the two closest measurements. Once again, make sure the infant does not hang onto the caregiver nor can the caregiver hold or touch the infant; also the infant cannot touch the sides of the scale, and all of the infant's body must be within the scale's tray, as this will affect the weight.
- Enter the final value into the WIC computer system.



Complete Activity 2 in your Activities Packet

Technique for measuring an adult or child's weight on a Balance Beam Scale (Module 1, slides 14-18):

- Before weighing, have the participant take off her shoes and any heavy clothing such as a jacket or sweater.
- Make sure a paper liner is placed onto the scale before weighing.
- Situate the upper and lower counterbalance weights at the far left at zero.
- Have the participant step onto the scale, and remain still. Move the lower weight over to the right until the indicator arm drops. You can then move the upper weight to the right, until the indicator arm balances in the center.
- Make a note of the measurement.
- Check the scale manufacturer's instructions to see if two measurements are required to ensure accuracy. If yes, have the participant step off the scale, move the two weights back to their zero positions, and then have the participant step back onto the scale. Once again, have the participant remain still. Move the lower and upper weights over to the right until the indicator arm balances in the center. These two measurements need to be within a ¼ pound of each other. If they are not, take a third measurement, and use the average of the two closest measurements.
- Enter the final value into the WIC computer system.

Technique for measuring an adult or child's weight on an Electronic Scale (Module 1, slides 14-18):

- Before weighing, have the participant take off her shoes and any heavy clothing such as a jacket or sweater.
- Make sure a paper liner is placed onto the scale before weighing, and the scale is on and set to zero.

- Have the participant step onto the scale and remain still until the scale finishes adjusting, which is usually a couple of seconds. Depending upon the type of electronic scale your clinic uses, this measurement will be displayed in pounds and ounces or pounds and tenths of a pound or kilograms and grams.
- Make a note of the measurement.
- Have the participant step off the scale. This will cause most electronic scales to reset to zero.
- Check the scale manufacturer's instructions to see if two measurements are required to ensure accuracy. If yes, have the participant step back onto the scale for a second measurement. These two measurements need to be within four ounces of each other. If not, take a third measurement, and use the average of the two closest measurements.
- Enter the final value into the WIC computer system.

Technique for measuring an adult or child's height on a Manual Stadiometer (Module 1, slides 24-32):

- Before measuring, have the participant take off her shoes, and any heavy clothing she might be wearing.
- Since the headboard needs to rest flat against the participant's head, make sure anything like hair clips or hats are removed. Some hairstyles, like braids, can also prevent the headboard from resting flat, and can cause an inaccurate measurement. Under these circumstances, have the participant do her best to flatten her hair. If the participant is unable to do so, record it in the chart.
- Have the participant stand under the headboard. Make sure the participant's heels, buttocks, shoulders, and head are all flat up against the vertical beam before lowering the headboard. This will ensure an accurate measurement.
- Loosen the wing nut that holds the headboard in place, then lower the headboard gently onto the participant's head and re-tighten the nut. Read the measurement at the "Read Here" arrow or designated line to the nearest one eighth of an inch.
- Make a note of the measurement.
- Check the stadiometer manufacturer's instructions to see if two measurements are required to ensure accuracy. If yes, loosen and move the headboard up. Recheck the participant's position to make sure their heels, buttocks, shoulders, and head are all flat against the vertical beam. Lower the headboard firmly onto the participant's head and take a second measurement. These two measurements need to be within $\frac{1}{4}$ inch. If they are not, take a third measurement and use the average of the two closest measurements.
- Enter the final value into the WIC computer system.

Technique for measuring an adult or child's height on an Electronic Stadiometer (Module 1, slides 24-31)

- Before measuring, have the participant take off her shoes, and any heavy clothing she might be wearing.
- Since the headboard needs to rest flat against the participant's head, make sure anything like hair clips or hats are removed. Some hairstyles, like braids, can also prevent the headboard from resting flat, and can cause an inaccurate measurement. Under these circumstances, have the participant do her best to flatten her hair. If the participant is unable to do so, record it in the chart.

- Have the participant stand under the headboard. Make sure the participant's heels, buttocks, shoulders, and head are all flat up against the vertical beam before lowering the headboard. This will ensure an accurate measurement.
- Lower the headboard gently onto the participant's head and note the measurement.
- Check the stadiometer manufacturer's instructions to see if two measurements are required to ensure accuracy. If yes, raise the headboard, double check the participant's position to make sure the participant's heels, buttocks, shoulders, and head are all flat against the vertical beam. Lower the headboard firmly onto the participant's head and write down the second measurement. These two measurements need to be within ¼ inch. If they are not, take a third measurement and use the average of the two closest measurements.
- Enter the final value into the WIC computer system.



Complete Activities 3, 4, 5 & 6 in your Activities Packet

Module 2: Defining Body Mass Index & How to Interpret Growth Charts

Learner's Steps:

Return to the LMS Anthropometrics Course. Please complete the steps in the following order:

- If necessary, log back onto <https://id.train.org/DesktopShell.aspx>
- If necessary, re-open the Anthropometrics Course.
- Complete Module 2: Practicing BMI & Interpreting Growth Charts
- Complete Anthropometrics Activity 7 and 8, either individually or with the other learner(s). Some activities require the presence of your trainer. Please meet with your trainer prior to beginning those activities.
- Meet with your trainer to discuss Practicing BMI & Interpreting Growth Charts Module and activity 7.



Complete Activities 7 & 8 in your Activities Packet

Anthropometrics Post Test Completion

Learner's Steps:

Return to the LMS Anthropometrics Course. Please complete the steps in the following order:

- If necessary, log back onto <https://id.train.org/DesktopShell.aspx>
- Complete the Anthropometrics Post-Test (Anthropometrics Assessment)
- Share the results of your Post-test with your trainer.