

Component III: Clinical

Module A: Exam Room Procedures

Topic 5: Height, Weight and BMI

Statement of Purpose

To provide the learner with basic knowledge and skills concerning the theoretical and procedural requirements for measuring height and weight.

Student Learning Outcomes

Upon completion of this topic, the learner will be able to:

1. Spell and define the key terms.
2. Explain and demonstrate the procedures for measuring and recording a patient's height and weight correctly.
3. Convert weight in pounds to kilograms and vice versa.
4. Convert height from inches to centimeters and vice versa.
5. Measuring BMI (body mass index)
6. Discuss patient education.
7. Discuss legal and ethical implications of weighing and measuring a patient.

Terminology

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| 1. Anthropometric | 4. Pound (lb.) |
| 2. Calibrated | 5. Stature (Standing Height) |
| 3. Kilogram (kg) | 6. BMI (Body Mass Index) |

References

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Websites

1. www.osha.gov
2. www.cdc.gov
3. www.innerbody.com
4. www.mbc.ca.gov/allied/medical_assistants.html
5. www.jointcommision.org

Content Outline/Theory Objectives	Suggested Learning Activities
<p>Objective 1 Spell and define key terms.</p> <ul style="list-style-type: none"> A. Review the terms listed in the terminology section. B. Spell the listed terms accurately. C. Pronounce the terms correctly. D. Use the terms in their proper context. 	<ul style="list-style-type: none"> A. Games: word searches, crossword puzzles, Family Feud, Jeopardy, bingo, spelling bee, hangman, and concentration. B. Administer vocabulary pre-test and post-test. C. Discuss learning gaps and plan for applying vocabulary.
<p>Objective 2 Explain and demonstrate the procedures for measuring and recording a patient's height and weight correctly.</p> <ul style="list-style-type: none"> A. Anthropometric measurements <ul style="list-style-type: none"> 1. Equipment for measuring height and weight <ul style="list-style-type: none"> a. Balance scale or digital scale with bar to measure height. b. Baby scale. c. Wall mounted graph. d. Disposable paper for infant scales. 2. Location of equipment. 3. Calibration of scales <ul style="list-style-type: none"> a. Kilograms. b. Pounds/quarter lbs. c. Inches/quarter inches. d. Centimeters. 4. Importance of zero-balancing scale <ul style="list-style-type: none"> a. Procedure. b. Frequency to be done. 5. Paper towel on platform of scale <ul style="list-style-type: none"> a. Patient weight without shoes more accurate. b. Provides clean surface for bare feet. 6. Techniques used for measuring adults, toddlers, and infants <ul style="list-style-type: none"> a. Adult <ul style="list-style-type: none"> 1) Measure to the nearest quarter of an inch. 2) Raise the height bar well above the patient's head and wing out the extension. 3) Ask patient to step on the center of the scale and stand up straight and look forward. 4) Gently lower the height bar until the extension rests on the patients head. 5) Have the patient step off the scale before reading the measurement. 6) Record the patient's height in chart. 	<ul style="list-style-type: none"> A. Lecture/Discussion B. Assigned Readings C. Have a variety of equipment available with which students can practice. D. Demonstrate correct techniques. E. Show Delmar's medical assisting video series. <ul style="list-style-type: none"> 1. Measuring height and weight using upright scale. 2. Weigh and measure and infant.

- b. Toddler
 - 1) Measure the child's height in the same manner as you measure adult height, or have the child stand with his back against the height chart.
 - 2) Measure height at the crown of the head.
 - 3) Record the patient's height in chart.

- c. Infant
 - 1) Scale with length (height) bar
 - If the scale has a height bar, move the infant toward the head of the scale or examination table until the head touches the bar.
 - Have the parent hold the infant by the shoulders in this position.
 - Holding the infant's ankles, gently extend the legs and slide the bottom bar to touch the soles of the feet.
 - Note the length and release the infant's ankles.
 - Record the patient's length in the chart.
 - 2) Scale or examination table without length (height) bar
 - Have the parent position the infant close to the head of the examination table and hold the infant by the shoulders in this position.
 - Place a stiff piece of cardboard against the crown of the infant's head and mark a line on the towel or paper, or hold a yardstick against the cardboard.
 - Holding the infant's ankles, gently extend the legs and draw a line on the towel or paper to mark the heel, or note the measure on the yardstick.
 - Record the patient's length in the chart.

- 7. Techniques used for measuring the weight of adults, toddlers and infants
 - a. Measure to the nearest quarter of a pound.
 - b. Adult
 - 1) Check to see whether the scale is in

<p>balance.</p> <ol style="list-style-type: none"> 2) Place a disposable towel on the scale. 3) Ask the patient to remove shoes. 4) Ask the patient to step on the center of the scale facing forward. 5) Record the patient's weight in the chart. <p>c. Toddler</p> <ol style="list-style-type: none"> 1) Check to see whether the scale is in balance. 2) Ask the parent to hold the patient and to step on the scale. 3) Follow the procedure for obtaining the weight of an adult. 4) Have the parent put the child down or hand the patient to another staff member. 5) Obtain the parents weight. 6) Subtract the parent's weight from the combined weight to determine the weight of the child. 7) Record the patient's weight in the chart. <p>d. Infant</p> <ol style="list-style-type: none"> 1) Ask the parent to undress the infant. 2) Check to see whether the scale is in balance. 3) Have the parent place the child face up on the scale (or on the examination table if the scale is built in.) 4) Keep one hand over the infant at all times to prevent a fall. 5) Record the patient's weight in the chart. 	
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<p>Objective 3 Convert weight in pounds to kilograms and vice versa.</p> <ol style="list-style-type: none"> A. To convert weight in pounds to kilograms <ol style="list-style-type: none"> 1. One pound = 0.45 kilograms. 2. Multiply the number of pounds by 0.45. B. To convert weight in kilograms to pounds <ol style="list-style-type: none"> 1. One kilogram = 2.2 pounds. 2. Multiply the number of kilograms by 2.2. 	<ol style="list-style-type: none"> A. Lecture/Discussion B. Assigned Readings C. Have students measure and record the weight of five other students with conversion to metric included in charting.
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<p>Objective 4 Convert height from inches to centimeters and vice versa.</p> <ul style="list-style-type: none"> A. To convert inches to centimeters <ul style="list-style-type: none"> 1. One inch is 2.54 centimeters. 2. Multiply the number of inches by 2.54. B. To convert centimeters to inches <ul style="list-style-type: none"> 1. One centimeter is one-hundredth part of a meter. 2. One centimeter is 2/5 of a linear inch (0.394 in.) 3. Multiply the number of centimeters by 0.394. 	<ul style="list-style-type: none"> A. Lecture/Discussion B. Assigned Readings C. Have students measure and round the height of five other students with conversion to metric included in charting.
<p>Objective 5 Measuring BMI (Body Mass Index).</p> <ul style="list-style-type: none"> A. Body mass index (BMI) is a measure of body fat based on height and weight that applies to adult men and women. B. Measuring BMI <ul style="list-style-type: none"> 1. Take the height in inches and square the number (In other words, multiply the number of inches by the same number of inches) <ul style="list-style-type: none"> a. Divide the weight in pounds by the height in inches squared. b. Divide the weight in pounds by the height in inches squared. c. Multiply that answer by the conversion factor of 703 if you used inches and pounds (the answer is the body mass index). d. BMI Calculators are available in chart form. e. Record the patient's BMI in the chart. 	<ul style="list-style-type: none"> A. Lecture/Discussion B. Assigned Readings C. Have students measure and round the height of five other students with conversion to metric included in charting.

Objective 6**Discuss patient education.**

- A. Patient education is a primary function for the Medical Assistant.
- B. Clarification of medical terminology, tests and procedures decrease patient confusion.
- C. Involve patient in decision making about treatment or care in order to encourage cooperation.
- D. MAs must know the material and be prepared to answer any questions from the patient.
- E. Primary goal is good communication
 - 1. Each patient has individual needs that you must meet.
 - 2. Must communicate in an efficient and effective manner.
 - 3. Active listening is essential.
- F. Never assume that a patient already knows the information you are conveying
 - 1. Ask patient to repeat information.
 - 2. Provide printed material
 - a. Clear and concise in content.
 - b. Appropriately distributed routinely to patients.
- G. Your attitude is an important aspect of a patient's experience
 - 1. Must be open when approaching patient.
 - 2. There is no room for prejudice.
 - 3. Your job is to provide assistance.
 - 4. Negative feelings can cause patient to pay less attention to your instructions and suggestions.

- A. Lecture/Discussion
- B. Assigned Readings
- C. Students can role play calling patients from waiting room and escorting them to the scale, obtain measurements, and accurately document readings.

Objective 7**Discuss legal and ethical implications of weighing and measuring a patient.**

- A. Medical Assistants have an ethical responsibility to use careful, proper techniques when weighing and measuring patients
 - 1. Inaccurate readings can lead to a misdiagnosis.
 - 2. Inaccurate readings can lead to serious consequences for the patient.
 - 3. Litigation can result.
- B. Documentation must be accurate and complete
 - 1. Errors and omissions can lead to serious complications for the patient.
 - 2. Can also lead to legal consequences for the physician and the Medical Assistant.

- A. Lecture/Discussion
- B. Assigned Readings
- C. Give examples of disease processes where weight gain or weight loss is significant.