**Guided Lecture Notes, Chapter 20, Vital Signs, Height, and Weight**

Learning Objective 1. Explain the term *vital signs* and how they reflect changes in a person’s medical condition. (Refer to **PowerPoint slide 2**.)

* Explain the term *vital* to the students and introduce the bodily functions that are considered vital to life.
* Discuss how the measurement of these vital signs can indicate changes affecting a person’s overall health or condition.
* Discuss times when vital signs are routinely measured and circumstances that may require more frequent monitoring.
* Describe factors that affect a person’s vital signs throughout the day. Explain that “normal” readings will differ among individuals and that changes in a particular person’s vital signs can indicate illness.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 2. Explain the importance of accurately measuring and recording vital signs, and of reporting any changes to the nurse. (Refer to **PowerPoint slides 3 to 6**.)

* Show students examples of the types of forms used to record vital sign measurements.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 3. Define the term *body temperature* and describe the factors affecting a person’s body temperature. (Refer to **PowerPoint slides 7 to 8, 18 to 22**.)

* Explain the term *body temperature.*
* List and briefly discuss the factors affecting the body temperature. Explain briefly the process of metabolism and how it affects our body temperature.
* Use a body chart to show the students the various outlets through which we lose body heat.
* Discuss reasons why an elevation of body temperature may occur, and why this finding should be reported to the nurse immediately.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 4. List common sites used for measuring a person’s body temperature, and the advantages and disadvantages of each. (Refer to **PowerPoint slides 9 to 17.**)

* Discuss the difference in temperature measurements depending on the site measured.
* Describe the different types of thermometers. Discuss their structure, use, and advantage over each other.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 5. Demonstrate the proper use of a glass thermometer, an electronic or digital thermometer, a tympanic thermometer, and a temporal thermometer. (Refer to **PowerPoint slides 11 to 17**.**)**

* Describe the methods used to record a person’s temperature.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 6. Define the term *pulse* and describe factors that may affect a person’s pulse. (Refer to **PowerPoint slides 23, 24 and 28 to 32**.)

* Describe the pulse and explain what taking a person’s pulse is actually measuring or assessing.
* Mention different factors affecting the pulse.
* Discuss what is meant by the terms *rate*, *rhythm*, and *amplitude*.
* Describe abnormal findings and when to report these to the nurse.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 7. List common sites used for taking a person’s pulse. (Refer to **PowerPoint slides 25 to 27**.)

* Explain that measuring the radial pulse is the least invasive method of taking a pulse. However, there are some instances when an apical pulse is desirable. Use an anatomy chart or model to show where an apical pulse is auscultated.
* Describe how an apical pulse is measured and instances when the pulse deficit will need to be determined.
* Bring in a stethoscope, demonstrate its important parts, and the method of using it.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 8. Demonstrate the proper way to measure and record a radial pulse and an apical pulse including using a stethoscope. (Refer to **PowerPoint slide 25**.)

* Demonstrate the proper method of taking a radial pulse. Explain the importance of using enough pressure of the fingers on the artery to be able to easily feel the pulsations, but not so much pressure as to occlude the artery. Have the students first practice taking each other’s pulse for a full minute using a watch with a second hand. Then have them practice taking the pulse for 30 seconds and then multiplying the number by 2. Have them record their findings and determine whether the rate falls in the “normal” range, whether it is regular, and what the amplitude is.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 9. Explain the terms used to describe a person’s respirations and the factors that may affect a person’s respirations. (Refer to **PowerPoint slides 33 to 34, 38 to 39**.)

* Discuss respiratory rate, rhythm, and depth.
* Discuss various factors affecting respiration.
* Identify the various respiratory rates and patterns.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 10. Demonstrate the proper way to measure and record a person’s respirations. (Refer to **PowerPoint slide 35**.)

* Discuss how to measure respiration so that the patient or resident does not voluntarily control his or her respiratory rate.
* Describe abnormal findings and when to report these to the nurse.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 11. Define the term *blood pressure* and describe factors that may affect a person’s blood pressure. (Refer to **PowerPoint slides 41 to 42, 61**.)

* Discuss what is meant by blood pressure and what the systolic and diastolic measurements refer to.
* Discuss various factors that affect a person’s blood pressure.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 12. Demonstrate the proper way to measure a person's blood pressure, including using a sphygmomanometer and listening for Korotkoff sounds**. (Refer to PowerPoint slides 43 to 50.)**

* Define manually operated sphygmomanometer. demonstrate its important parts, and the method of using it.
* Show students examples of the two different types of manual sphygmomanometers: the aneroid and the mercury. Explain the parts that make up the blood pressure cuff and how to use the equipment. Describe Korotkoff sounds.
* List and explain the five phases of the Korotkoff sounds, which may be heard while taking a person’s blood pressure. Describe automated sphygmomanometers and other means of measuring blood pressure.

Learning Objective 13. Define various terms used to describe an abnormal blood pressure. (Refer to **PowerPoint slides 51 to 56**.)

* Discuss the changes that occur in a person’s blood pressure throughout the course of the day.
* Describe what is meant by “normal” blood pressure and how what is “normal” for one person will not be normal for another one.
* Explain the ranges of what is considered normal blood pressure and terms used to describe high or low readings.
* Discuss how untreated hypertension can affect a person’s body and the precautions that should be taken if a person has hypotension.
* Describe abnormal findings and when to report these to the nurse.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 14. Discuss factors that can lead to a change in a person’s weight. (Refer to **PowerPoint slide 57 to 63**.)

* Discuss how changes in a person’s weight can indicate health problems. In addition, point out that a person’s weight is often used to calculate medication dosages.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 15. Demonstrate the proper way to measure a person’s height and weight using an upright scale, a chair scale, and when the person is in bed. (Refer to **PowerPoint slides 60 to 63**.)

* Have students practice measuring each other’s height and weight on the upright scale.
* Discuss the different types of scales used to determine weight. If you have access, show students the different types and demonstrate their use. Have students practice measuring each other’s height and weight while the person is lying in bed.
* Have learners refer to learning activities located at the end of the chapter.