

Component III: Clinical

Module B Specialty Procedures

Topic 5: Assisting with Orthopedic Procedures

Statement of Purpose

To prepare the learner with basic knowledge and skills necessary to assist the Physician in orthopedic procedures.

Student Learning Outcomes

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

1. Spell and define key terms.
2. Describe how to prepare a patient for casting and orthotics as well as how to assist the Physician in the casting and orthotic procedures.
3. Demonstrate the application of an arm sling.
4. Describe and demonstrate how to measure for axillary crutches.
5. Demonstrate how to instruct a patient to use a cane, walker and crutches.

Terminology

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| 1. Balance | 9. Posture |
| 2. Crutches | 10. Quad-base walker |
| 3. Flexibility | 11. Range of motion |
| 4. Gait | 12. Reduction |
| 5. Goniometer | 13. Sling |
| 6. Immobilization | 14. Stabilize |
| 7. Mobility aid | 15. Support |
| 8. Physical therapy | 16. Traction |

References

1. Kronenberger, J., Southard D. L., & Woodson, D. (2013). *Comprehensive Medical Assisting* (4th Ed.). Philadelphia, PA: Lippincott, Williams & Wilkins.
2. Booth, K.A., Whicker, L.G., Wyman, T.D., & Moaney-Wright, S. (2011). *Medical Assisting: Administrative & Clinical Competencies with Anatomy and Physiology*. (4th Ed.). New York, NY: McGraw-Hill Company, Inc.

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 Describe how to prepare a patient for casting and orthotics as well as how to assist the Physician in the casting and orthotic procedures.</p> <ul style="list-style-type: none"> A. Wash your hands. B. Assemble equipment and supplies <ul style="list-style-type: none"> 1. Tubular-shaped soft fabric stocking material. 2. Roller padding. 3. Casting material. 4. Bucket of cold or tepid water. 5. Plaster or cast knife. 6. Utility gloves. C. Greet and identify patient. D. Explain the procedure. E. Casting patient preparation <ul style="list-style-type: none"> 1. Position patient comfortably. 2. Drape appropriately. 3. Clean and dry the area. 4. Dress any lesions present. F. Responsibilities <ul style="list-style-type: none"> 1. Assist Physician as needed. 2. Soak materials. 3. Remove excess water from materials. 4. Clean patient skin. 5. Clean up supplies and the exam room. 	<ul style="list-style-type: none"> A. Lecture/Discuss B. Assigned Readings C. Demonstration and return demonstration.
<p>Objective 3 Demonstrate the application of an arm sling.</p> <ul style="list-style-type: none"> A. Wash your hands. B. Assemble equipment and supplies. C. Greet and identify patient. D. Explain the procedure. E. Position affected limb with the hand slightly less than a 90 degree angle. Fingers higher than elbow. F. Insert the arm into the pouch end of the sling with the elbow fitting into the pocket corner. 	<ul style="list-style-type: none"> A. Lecture/Discuss B. Assigned Readings C. Demonstration and return demonstration. D. Practice time in skills lab.

<ul style="list-style-type: none"> G. Bring the strap across the back and over the opposite shoulder to the front of the patient. H. Secure the Velcro end of the strap by inserting the end of it under the loop on the sling <ul style="list-style-type: none"> 1. Pull the strap through the loop an adequate amount so that the arm and hand inside the sling continue to be slightly elevated at a 90 degree angle. 2. Presses the Velcro ends together and check the patients comfort and distal extremity circulation. 3. Document the application in the patient's chart. 	
<p>Objective 4 Describe and demonstrate how to measure for axillary crutches.</p> <ul style="list-style-type: none"> A. Wash your hands. B. Assemble equipment, including the correct size crutches. C. Greet and identify the patient. D. Ensure client is wearing low-heeled shoes with safety soles. E. Have patient stand erect. Support the patient as needed. F. Have patient hold crutches naturally with tips about two inches in front of and 4-6 inches to side of feet (tripod position). G. Adjust the central support in the base so the axillary bar is about two finger-breadths below the patient's axillae. H. Tighten bolts when proper height is reached. I. Adjust handgrips by raising or lowering the bar so patient's elbow is at a 30 degree angle when bar is gripped. J. Tighten bolts for safety. K. Pad axillary bars and handgrips if necessary. L. Wash your hands. M. Document the procedure in the patient chart. 	<ul style="list-style-type: none"> A. Lecture/Discuss B. Assigned Readings C. Have students adjust crutches for each other's height.
<p>Objective 5 Demonstrate how to instruct a patient to use a cane, walker and crutches.</p> <ul style="list-style-type: none"> A. Teaching a patient how to use a cane <ul style="list-style-type: none"> 1. How to get up from a chair. 2. Hold the cane on the uninjured or strong side of their body. 3. Hold the cane with the tip 4-6 inches from side of strong foot. 4. Remind the patient to keep the tip flat on ground. 5. Have the patient move the cane forward approximately 8 inches and then move the affected foot forward, parallel to the cane. 6. Next, have the patient move their strong leg forward past cane and weak leg. 7. Observe as the patient repeats this process. 8. Teach the patient how to ascend and descend stairs. 9. Document the procedure in the patient chart. B. Teaching a patient how to use a walker <ul style="list-style-type: none"> 1. How to get up from a chair. 2. Instruct the patient to step into walker <ul style="list-style-type: none"> a. Place hands on the handgrips on the sides of 	<ul style="list-style-type: none"> A. Lecture/Discuss B. Assigned Readings C. Have students role play using assistive devices.

- walker.
- b. Make sure feet are far enough apart for balance.
- c. Pick up walker and move it forward about six inches.
- d. Move one foot forward, then the other foot.
- e. Pick up walker and move it forward again.
- 3. Observe as the patient repeats this process.
- 4. Document the procedure in the patient chart.
- C. Teaching a patient how to use crutches
 - 1. Stand erect and look straight ahead.
 - 2. Place the crutch tips 2-4 inches in front of and 4-6 inches to the side of each foot.
 - 3. Ensure that there is approximately a two inch gap between the axilla and the axillary bar.
 - 4. Ensure that the elbow is flexed at 25-30 degrees.
 - 5. Teach the patient how to get up from a chair.
 - 6. Teach the patient the required gait
 - a. Four-point.
 - b. Three point.
 - c. Two point.
 - d. Swing.
 - 7. Teach the patient how to ascend and descend stairs.
 - 8. Discuss general information related to the use of crutches
 - a. Do not lean on crutches.
 - b. Report to the Physician if tingling or numbness occurs in the arms, hands or shoulders.
 - c. Support body weight with the hands.
 - d. Always stand erect.
 - e. Look straight ahead when walking.
 - f. Do not move the crutches more than six inches ahead when walking.
 - g. Check crutch tips regularly for wear and wetness.
 - h. Check wing nuts and bolts for tightness.
 - i. Wear flat, well-fitting shoes with nonskid soles.
 - j. Remove throw rugs and unsecured article to avoid tripping and slipping.
 - k. Report any unusual pain in the affected area.