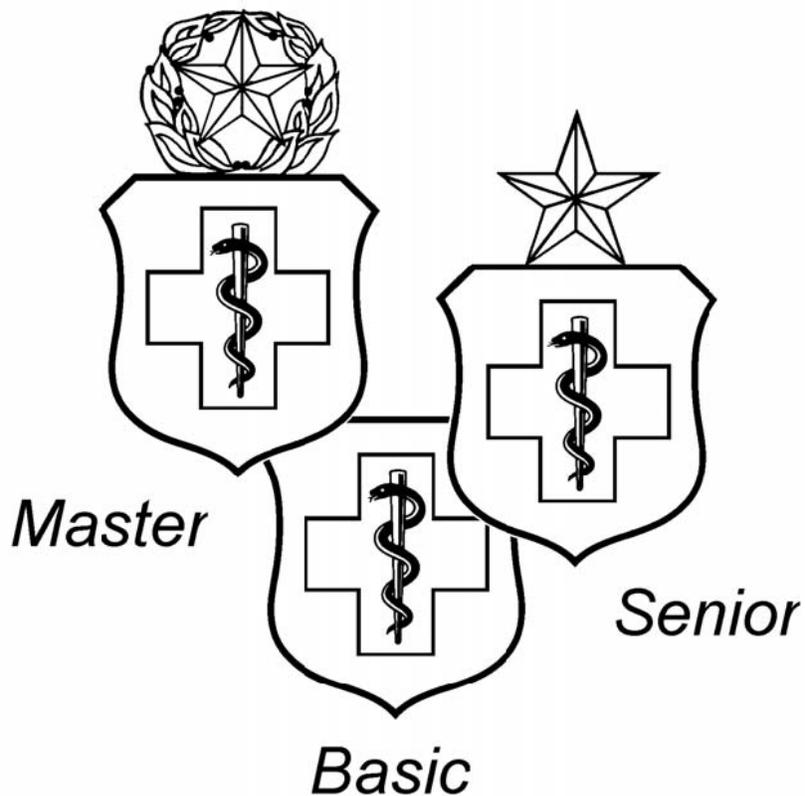


**SURGICAL SERVICE SPECIALTY**  
**ORTHOPEDIC SURGICAL SPECIALTY**



**ACCESSIBILITY:** Publications and forms are available on the e-publishing website at [www.e-publishing.af.mil](http://www.e-publishing.af.mil) for downloading or ordering.

**RELEASABILITY:** There are no releasability restrictions on this publication.

THIS PAGE INTENTIONALLY LEFT BLANK

**QTP 4N1X1X-C1**  
**SURGICAL SERVICE SPECIALTY**  
*Volume C1: Orthopedic Surgical Specialty*

**TABLE OF CONTENTS**

Introduction	iii
<b>Module 1. Perform Cast/Splint Applications</b>	
<i>Standard Short Arm Cast</i>	1
<i>Short Arm Ulna Gutter Cast (boxer's type)</i>	3
<i>Short Arm Thumb Spica Cast</i>	5
<i>Standard Long Arm Cast</i>	7
<i>Long Arm Hanging Cast</i>	9
<i>Long Arm Thumb Spica Cast</i>	11
<i>Muenster Cast</i>	13
<i>Long Leg Cast</i>	15
<i>Short Leg Cast</i>	17
<i>Patella Tendon Bearing Cast</i>	19
<i>Long Leg Cylinder Cast</i>	21
<i>Hip Spica Cast</i>	23
<i>Cast Removal</i>	25
<i>Volar Splint</i>	27
<i>Short Arm Sugar Tong Splint</i>	29
<i>Ulna Gutter Splint</i>	31
<i>Long Arm Posterior Splint</i>	33
<i>Long Arm Sugar Tong Splint</i>	35
<i>Long Leg Posterior Splint</i>	37
<i>Short Leg Posterior Splint</i>	39

	<i>Robert Jones Splint/Dressing</i>	41
<b>Module 2</b>	<b>Traction</b>	
	<i>Bucks traction</i>	43
	<i>Balanced Suspension with skin traction</i>	45
	<i>Balanced Suspension with skeletal traction</i>	48
	Improvements/Corrections Letter	52

OPR: Career Field Manager  
Certified by: SMSgt Ginger Y. McCracken (4N1X1 CFM)  
Supersedes: QTP 4N1X1-C1D3, 1 April 2008  
Pages: 57

## *INTRODUCTION*

1. This qualification training package (QTP) was developed to make a training aid available that will assist Orthopedic Surgical Technicians to develop technical skills essential to performing specialized tasks. The tasks are broken down into teachable elements that help the trainer guide the trainee into becoming proficient with the task. The QTP will also aid the task certifier when evaluating trainees for task certification.
  
2. As a trainer, go through each module (lesson) and identify which QTP tasks are appropriate for the trainee's duty position, and then determine the order in which you want the trainee to learn about each subject area. Direct the trainee to review the training references to better understand the objective of each module. Go through the steps in the task performance with the trainee and allow for enough time to learn each step; some objectives may take more time than others. Remember, the objective of the QTP is to ensure the trainee can perform each task thoroughly. When the trainee receives enough training and is ready to be evaluated on an objective, follow the evaluation instructions. Use the performance checklist as you evaluate each objective. If the trainee successfully accomplishes the objective, document appropriately in the individual's training record. If the trainee does not accomplish the objective, review the areas needing more training until the objective is met. Conduct a feedback with the trainee on each module. After the trainer has ensured and documented that the trainee is qualified to perform the task, a certifier should evaluate the trainee.
  
3. The goal of the developers of this QTP is to publish a useful document for trainers and trainees that will meet Air Force needs under the concepts outlined in the Career Field Education and Training Plan (CFETP). We value your expertise in meeting this goal. If you find discrepancies in this QTP, or have suggestions for its improvement, or if you have suggestions for other areas that may benefit from a QTP, please let us know about them. The subject-matter-expert for writing and developing this QTP was:

MSgt Eric MacFarlane  
673 MDG/SGCUB  
Elmendorf AFB, AK 99505  
DSN 580-1573  
Email: eric.macfarlance@us.af.mil

SMSgt Judy Hickman  
60 MSGS/CCC  
Travis AFB, CA 94535  
DSN 799-2385  
Email: judy.hickman@us.af.mil

*Any improvements, corrections, or comments you have about the QTP should be referred to the CFM or the SME.*

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF STANDARD SHORT ARM CAST***

<b>SUBJECT AREA:</b>	Perform Casting Application
<b>TASK(s):</b>	Application of standard short arm cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.1. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 3” rolls x 3-4 Stockinet and/or webril: 2” webril x 3 Scissors Sling
<b>OBJECTIVE:</b>	In a clinical setting, apply standard short arm cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions.
3. The trainee must satisfactorily perform all parts of the task *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF STANDARD SHORT ARM CAST</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (0-15 degrees of extension with fingers and thumb free; no radial or ulna deviation; no pronation or supination) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Apply stockinet, if appropriate. Smooth out wrinkles.		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1" distal to MCP joints, and ending 1" distal to cubital space. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Roll casting material circumferentially beginning at the wrist proceeding distally to distal palmar crease proceed proximal to 1" distal of cubital space.		
11. Trim cast to distal palmar crease and 1" from cubital space. Ensure cast is trimmed at base of thumb to allow full range of motion. Patient should be able to touch all digits with thumb.		
12. Dress cast by turning back stockinet and webril.		
13. Apply additional casting material as required (based on patient's dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate. An interosseous mold can be accomplished by molding with the flat of both palms and gently pressing between the radius and ulna both dorsally and volarly to spread the interosseous membrane.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient's exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on cast care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

## PERFORM CAST/SPLINT APPLICATIONS

### *APPLICATION OF SHORT ARM ULNA GUTTER CAST (BOXER'S TYPE)*

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Short Arm Ulna Gutter cast (Boxer's type)
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.2.. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 3" rolls x 3-4 Stockinet and/or webril: 2" webril x 3 Scissors Sling
<b>OBJECTIVE:</b>	In a clinical setting, apply short arm ulna gutter cast (boxer's type).
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.

#### EVALUATION INSTRUCTIONS:

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF SHORT ARM ULNA GUTTER CAST</i>	SAT	UNSAT
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (wrist in 0-15 degrees of extension, with no radial or ulnar deviation and no pronation or supination.) Place 4 <sup>th</sup> and 5 <sup>th</sup> digits at 70-90 degrees flexion at MCP joint and slight flexed at PIP joint or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Apply stockinet (optional). Place webril in between fingers to prevent skin maceration. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to the tips of the 4 <sup>th</sup> and 5 <sup>th</sup> digits down the ulna side of the forearm to 1” distal to the cubital space. Pay close attention to bony prominences.		
4. Ensure proper overlap (approximately 50%).		
5. Remove excess webril to ensure no pressure points.		
6. Ensure patient/extremity is positioned properly.		
7. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Apply casting material beginning at the wrist, proceed wrapping distally to the distal palmar crease and the proximal MCP joints to include the tips of the 4th and 5th digits ensuring complete coverage over the 4th MCP, ending 1” distal to the cubital space.		
11. Trim cast to expose tips of the 4th and 5th digits, distal palmar crease and proximal MCP joints, and to 1” distal the cubital space. Ensure cast is trimmed to the base of the thumb to allow full range of motion.		
12. Dress cast by turning back stockinet and webril and secure edges.		
13. Apply additional casting material as required (based on patient’s dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate. An interosseous mold can be accomplished by molding with the flat of both palms and gently pressing between the radius and ulna both dorsally and volarly to spread the interosseous membrane.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on cast care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF SHORT ARM THUMB SPICA CAST***

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Short Arm Thumb Spica Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.4. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 3” rolls x 3-4 Stockinet and/or webril: 2” webril x 3 Scissors Sling
<b>OBJECTIVE:</b>	In a clinical setting, apply short arm thumb spica cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions.
3. The trainee must satisfactorily perform all parts of the task *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF SHORT ARM THUMB SPICA CAST</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (wrist extended to 15 degrees, thumb abducted in a position of function, similar to position hand would assume if holding a glass, digits two to five are free) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Apply stockinet, if appropriate.		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1" distal to MCP joints, incorporating thumb and ending 1" distal to cubital space. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Roll casting material circumferentially starting at wrist proceeding distally to distal palmar crease incorporating the thumb and maintaining position, proceed proximal to 2" distal of cubital space. Ensure visualization of distal thumb.		
11. Trim cast to expose tip of thumb, distal palmar crease and proximal MCP joints and distal to within 1" of cubital space.		
12. Dress cast by turning back stockinet and webril.		
13. Apply additional casting material as required (based on patient's dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate. An interosseous mold can be accomplished by molding with the flat of both palms and gently pressing between the radius and ulna both dorsally and volarly to spread the interosseous membrane.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient's exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on cast care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS***APPLICATION OF STANDARD LONG ARM CAST*

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Standard Long Arm Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.5. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 3” or 4” rolls x 3-4 Stockinet and/or webril: 2” webril x 3; 3” webril x 3-4 Scissors Sling
<b>OBJECTIVE:</b>	In a clinical setting, apply standard long arm cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF STANDARD LONG ARM CAST</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (elbow flexed at 90 degrees, wrist slightly extended at 10 – 20 degrees, forearm in neutral position, thumb up) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Apply stockinet, if appropriate. Cut excess stockinet from elbow crease.		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1” distal to MCP joints and ending 2” from axillae. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Roll casting material circumferentially starting at the wrist proceeding distally to distal palmar crease; proceed proximal to 2” distal of axilla.		
11. Trim casting material from distal palmar crease and 2” from axilla. Ensure cast is trimmed at base of thumb to allow full range of motion. Patient should be able to touch all digits with thumb.		
12. Dress cast by turning back stockinet and webril.		
13. Apply additional casting material as required (based on patient’s dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate. The upper arm should be molded into a quadrilateral shape that is wide and flat posteriorly. Anteriorly, the medial and lateral aspects of the biceps should be well molded.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on cast care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF STANDARD LONG ARM HANGING CAST***

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Standard Long Arm Hanging Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.6 Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 3” rolls x 3; 4” inch rolls x 3-4 Stockinet and/or webril: 2” webril x 3; 3” webril x 3-4 Scissors Rope Loop (plaster or wire) Collar Sling
<b>OBJECTIVE:</b>	In a clinical setting, apply standard long arm hanging cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS****PERFORMANCE CHECKLIST**

<b><i>APPLICATION OF STANDARD LONG ARM HANGING CAST</i></b>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (elbow flexed at 90 degrees, wrist slightly extended at 10 – 20 degrees, forearm in neutral position, thumb up) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Apply stockinet, if appropriate. Cut excess stockinet from elbow crease.		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1” distal to MCP joints and ending 2” from axilla. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Roll casting material circumferentially starting at the wrist proceeding distally to distal palmar crease proceed proximal to 2” distal of axilla.		
11. Trim casting material from distal palmar crease and 2” from axilla. Ensure cast is trimmed at base of thumb to allow full range of motion. Patient should be able to touch all digits with thumb.		
12. Dress cast by turning back stockinet and webril.		
13. Apply additional casting material as required (based on patient’s dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate. The upper arm should be molded into a quadrilateral shape that is wide and flat posteriorly. Anteriorly, the medial and lateral aspects of the biceps should be well molded.		
15. Incorporate a loop using either plaster, fiberglass or wire loop onto the cast 1” proximal to base of the thumb or as directed by physician.		
16. Apply a collar and hang the cast with traction rope, cravat, or stockinet ensuring it does not rest on patient’s skin.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on cast care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF LONG ARM THUMB SPICA CAST***

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Long Arm Thumb Spica Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.7. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 3” rolls x 3-4; 4” rolls x 2-3 Stockinet and/or webril: 2” webril x 3; 3” webril x 3-4 Scissors Sling
<b>OBJECTIVE:</b>	In a clinical setting, apply long arm thumb spica cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF LONG ARM THUMB SPICA CAST</i>	SAT	UNSAT
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function and apply short arm thumb spica first. Then position patient with elbow flexed at 90 degrees (or as directed by physician) and apply long arm portion.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Apply stockinet, if appropriate. Cut excess stockinet from elbow.		
4. Roll webril around extremity, wrinkle free, starting from and overlapping edge of short arm portion and ending 2” from axilla. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Roll casting material circumferentially starting from and overlapping edge of short arm portion and ending 2” from axilla.		
11. Trim casting material as required to expose tip of thumb, distal palmar crease and proximal MCP joints and proximal within 2” of axilla.		
12. Dress cast by turning back stockinet and webril.		
13. Apply additional casting material as required (based on patient’s dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate. The upper arm should be molded into a quadrilateral shape that is wide and flat posteriorly. Anteriorly, the medial and lateral aspects of the biceps should be well molded.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on cast care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

## PERFORM CAST/SPLINT APPLICATIONS

### *APPLICATION OF MUENSTER CAST*

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Muenster Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.8. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 3” rolls x 3-4 Stockinet and/or webril: 2” webril x 3-4 Scissors Sling
<b>OBJECTIVE:</b>	In a clinical setting, apply muenster cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.

#### EVALUATION INSTRUCTIONS:

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF MUENSTER CAST</i>	SAT	UNSAT
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (10 – 20 degrees of extension with fingers and thumb free; elbow at 45-90 degrees, this will allow for easier trimming around the elbow) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Apply stockinet, if appropriate.		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1” distal to MCP joints and ending 2” above elbow. Pay close attention to bony prominences. Add additional padding as needed.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Roll casting material circumferentially starting at the wrist proceeding distally to palmar crease. Proceed rolling to approximately 2” above the elbow.		
11. Trim casting material as required around hand to distal palmar crease. Apply a medial/lateral condyle mold just proximal to the elbow. Trim casting material in “U” shape approximately 1” from antecubital and 1” distally from elbow.		
12. Fold casting material down forming “Mickey Mouse type ears” around medial and lateral condyles.		
13. Apply additional casting material as required (based on patient’s dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on cast care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS***APPLICATION OF LONG LEG CAST*

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Long Leg Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.9 Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 5” rolls x 3-4; 4” rolls x 3-4 3 or 4” Stockinet and/or webril: 3 or 4” webril x 5-6 Scissors
<b>OBJECTIVE:</b>	In a clinical setting, apply long leg cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

## PERFORM CAST/SPLINT APPLICATIONS

### PERFORMANCE CHECKLIST

<i>APPLICATION OF LONG LEG CAST</i>	SAT	UNSAT
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (knee at knee at 0-30 degrees flexion and ankle at 90 degrees; for Achilles tendon injuries, the foot is placed in equinus) or as directed by physician. Maintain neutral position (no inversion, eversion, plantar/dorsiflexion). This may take two people.		
2. Provide patient with sheet or towel for privacy.		
3. Inspect skin for integrity/injury. Remove all jewelry.		
4. Apply stockinet, if appropriate.		
5. Roll webril around extremity starting 1" distal to metatarsal heads and ending 3" distal from groin, paying close attention to bony prominences. Apply additional padding where needed.		
6. Ensure proper overlap (approximately 50%).		
7. Remove excess webril to ensure no pressure points.		
8. Ensure patient/extremity is positioned properly.		
9. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
10. Remove excess water from casting material.		
11. Roll casting material circumferentially starting at the toes and proceed to popliteal space as if applying a short leg cast.		
12. Maintain patient position, readjust if needed		
13. To finish cast, begin rolling cast material on ½ length of short leg cast and roll to 4" distal of groin.		
14. Apply additional casting material as required (based on orders; weight/non-weight bearing and patient's dimensions).		
15. Form casting material to patient by rubbing/smoothing material as appropriate. Special attention should be paid to the transverse and longitudinal arches of the foot, the malleoli and the heelcord. The mold of the thigh and knee are crucial to the efficacy of this cast. Mold cast around the condyles of the femur to prevent cast sliding down the leg. A quadrilateral thigh mold is applied manually by placing the heels of the palms just above the knee on the medial and lateral sides.		
16. Place leg on pillows and allow to dry.		
17. Apply cast shoe for weight bearing cast if appropriate.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient's exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Brief patient on cast care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

## PERFORM CAST/SPLINT APPLICATIONS

### *APPLICATION OF SHORT LEG CAST*

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Short Leg Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.10. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 4” rolls x 3-4 Stockinet and/or webril: 4” webril x 3 Scissors Foot rest
<b>OBJECTIVE:</b>	In a clinical setting, apply short leg cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.

#### EVALUATION INSTRUCTIONS:

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF SHORT LEG CAST</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (ankle at 90 degrees, no supination, pronation, inversion or eversion; for Achilles tendon injuries, the foot is placed in equinus) or as directed by physician.		
3. Inspect skin for integrity/injury. Remove all jewelry.		
4. Apply stockinet, if appropriate. Cut excess stockinet from ankle crease.		
5. Roll webril around extremity, wrinkle free, beginning at toes, extending 1” past toes for toe plate and proceeding proximal with 1” distal of popliteal space. Pay close attention to bony prominences. Apply additional padding as needed.		
6. Ensure proper overlap (approximately 50%).		
7. Remove excess webril to ensure no pressure points.		
8. Ensure patient/extremity is positioned properly.		
9. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
10. Remove excess water from casting material.		
11. Roll casting material circumferentially starting at the toes and extending to the tips of the toes and proceeding proximal 2” distal from bend of knee just distal to the fibular head to allow for full flexion of the knee.		
12. Trim casting material to expose toes and provide toe plate and 2-3” distal from popliteal space to allow for full flexion of the knee.		
13. Dress cast by turning back stockinet and webril.		
14. Apply additional casting material as required (based on orders; weight/non-weight bearing and patient’s dimensions).		
15. Form casting material to patient by rubbing/smoothing material as appropriate. Special attention should be paid to the transverse and longitudinal arches of the foot, the malleoli and the heelcord. The crest of the tibia and the gastroc/soleus musculature should be well molded to ensure a good fit.		
16. Apply cast shoe for weight bearing cast if appropriate.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Brief patient on cast care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF PATELLA TENDON BEARING CAST***

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Patella Tendon Bearing Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.11. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 4” rolls x 3-4 Stockinet and/or webril: 4” webril x 3 Scissors Foot rest
<b>OBJECTIVE:</b>	In a clinical setting, apply patella tendon bearing cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF PATELLA TENDON BEARING CAST</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (knee at 30-45 degrees and ankle at 90 degrees) or as directed by physician.		
2. Inspect skin for integrity/injury. Remove all jewelry.		
3. Apply stockinet, if appropriate.		
4. Roll webril, wrinkle free, around extremity starting at metatarsal heads, extend beyond the toes and proceed to 2" above the knee, paying close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Roll casting material circumferentially starting at metatarsal heads and ending 2" above the knee.		
11. Trim casting material in a "U" shape around patella and around the medial/lateral condyles forming a "U" shape approximately 2" from the antecubital space. Fold casting material down forming "Mickey Mouse type ears" around condyles.		
12. Dress cast by turning back stockinet and webril.		
13. Apply additional casting material as required (based on patient's dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate. The cast is well molded around the proximal tibial flare and the patellar tendon is molded horizontally.		
15. Place leg on pillows and allow to dry.		
16. Apply cast shoe for weight bearing cast.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient's exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Brief patient on cast care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS***APPLICATION OF LONG LEG CYLINDER CAST*

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Application of Long Leg Cylinder Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.12. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX.</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 4 & 5" rolls x 5-6 Stockinet and/or webril: 4" webril x 6 Scissors
<b>OBJECTIVE:</b>	In a clinical setting, apply long leg cylinder cast.
<b>REMARKS/NOTES:</b>	The principal danger of casting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Casts should be carefully wrapped to prevent this complication.
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF LONG LEG CYLINDER CAST</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (knee at 10-15 degrees) or as directed by physician. This may take two people.		
2. Inspect skin for integrity/injury. Remove all jewelry.		
3. Apply stockinet, if appropriate.		
4. Roll webril around extremity paying close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
9. Remove excess water from casting material.		
10. Roll casting material circumferentially starting 1" proximal from medial malleolus and proceed to 3" distal from groin.		
11. Trim casting material as required.		
12. Dress cast by turning back stockinet and webril.		
13. Apply additional casting material as required (based on patient's dimensions).		
14. Form casting material to patient by rubbing/smoothing material as appropriate. The mold of the thigh and knee are crucial to the efficacy of this cast. The cast must be molded around the condyles of the femur so as not to slide down the leg. A quadrilateral thigh mold is applied manually by placing the heels of the palms just above the knee on the medial and lateral sides.		
15. Place leg on pillows and allow to dry.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient's exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Brief patient on cast care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

## PERFORM CAST/SPLINT APPLICATIONS

### *APPLICATION OF HIP SPICA CAST*

<b>SUBJECT AREA:</b>	Perform Cast Applications
<b>TASK(s):</b>	Application of Hip Spica Cast
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.1.13. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Manual of Acute Orthopaedic Therapeutics</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster casting material: 6" rolls x 10; 4" rolls x 3-4 Plaster splinting material: 5" splints (have 2-3 boxes available) Fiberglass casting material for overlay Stockinet tubular or bias cut 6" webril x 6-10 rolls; 4" webril x 6-10 Felt padding Hand towels or ABD pads Scissors Spica table for children
<b>OBJECTIVE:</b>	In a clinical setting, apply hip spica cast.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication. This cast takes several assistants to apply expeditiously and correctly.
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF HIP SPICA CAST</i>	SAT	UNSAT
<b>PREPARATORY PHASE</b>		
1. Review orders to determine cast requirements.		
2. Gather needed supplies and adequate number of assistants. This cast should be done under the direction of the attending physician.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient as directed by physician.		
2. Inspect skin for integrity/injury. Remove all jewelry.		
3. Padding should consist of multiple layers of cast padding and cruciate cut felt strips applied to bony prominences (the anterior superior iliac spine, the spine and sacrum, and costal margins). Additional felt should be placed at the superior edge and on the inner groin under the cast for additional comfort. ABDs should be placed on top of the abdomen so they can be removed when cast application is complete in order to allow room for abdominal expansion.		
4. Ensure patient/extremity is positioned properly.		
5. Dip casting material into cold water if using synthetic casting tape or tepid (lukewarm) water if using plaster rolls.		
6. Remove excess water from casting material.		
7. Apply casting material circumferentially starting on the abdomen, then move down to the lower extremities. Reinforce the cast with multiple 15 inch splints (3-5 thicknesses). Pay particular attention to the where the cast crosses the hip joint. This area (intern's angle) is most susceptible to breakdown from stress. Additional rolls are applied following splint application to give a smooth, finished appearance.		
8. Trim cast as appropriate. Cut a circular hole in the abdomen to allow for expansion. Trim perineal and sacrum area well to allow for adequate bowel and bladder functions.		
9. Place wood spreader bar between the two legs to stabilize and strengthen cast. Tie in with rolls of plaster		
10. Pad perineal and areas of irritation with moleskin for comfort.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient's exposed skin around cast.		
2. Ensure patient comfort and circulation.		
3. Brief patient on cast care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****CAST REMOVAL***

<b>SUBJECT AREA:</b>	Perform Casting Applications
<b>TASK(s):</b>	Cast Removal
<b>CFETP/STS REFERENCE(s):</b>	20.2.2. Apply and remove orthopedic devices.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Cast Saw Cast Spreaders Bandage Scissors Hearing/Eye protection
<b>OBJECTIVE:</b>	In a clinical setting, remove all types of casts.
<b>REMARKS/NOTES:</b>	The principal danger of cast removal is cast saw burns or lacerations over bony prominences. This is especially true with anesthetized patients or patients unable to communicate well (infants or mentally impaired). This can be avoided by using short repetitive up and down strokes.
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>CAST REMOVAL</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Gather needed supplies.		
2. Greet and explain the procedure to the patient. Help the patient to relax as much as possible. This can be done by a cast saw demonstration before actually cutting the cast.		
<b>PERFORMANCE PHASE</b>		
1. Instruct patient to don hearing/eye protection. patient and technician.		
2. Technician don hearing/eye protection.		
3. Turn on cast saw.		
4. Push the saw blade through the plaster/or fiberglass using short, repetitive up and down strokes. Cut the cast on both sides of extremity.		
5. Spread the cast apart by using cast spreaders.		
6. Cut the cast padding with bandage scissors.		
7. Remove cast from extremity.		
8. Inspect skin for integrity/injury. Document pressure spots or abrasions.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient's skin.		
2. Prepare patient for exam.		
3. Document medical records or AF Form 600.		
4. Discard used items.		
5. Return unused resources to appropriate storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS***APPLICATION OF VOLAR (SHORT ARM) SPLINT*

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Volar (Short Arm) Splint
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.2.1.. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 4X15" splints x 10-15 thicknesses Webril: 3" webril x 3 Elastic bandages: 3"
<b>OBJECTIVE:</b>	In a clinical setting, apply volar (short arm) splint.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF VOLAR (SHORT ARM) SPLINT</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine splint requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (0-15 degrees of extension with fingers and thumb free; no radial or ulna deviation; no pronation or supination) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1” distal to MCP joints, and ending 1” distal to cubital space. Pay close attention to bony prominences.		
4. Ensure proper overlap (approximately 50%).		
5. Remove excess webril to ensure no pressure points.		
6. Ensure patient/extremity is positioned properly.		
7. Dip splinting material into cold water if using synthetic splinting material or tepid (lukewarm) water if using plaster.		
8. Remove excess water from splinting material.		
9. Apply splint starting at the distal palmar crease, proceed proximal to 2” distal of cubital space.		
10. Apply elastic bandage to completely cover exposed splint material.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around splint.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on splint care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF SHORT ARM SUGAR TONG SPLINT***

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Short Arm Sugar Tong Splint
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.2.2. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 4" rolls x 3-4 Webriil: 3" rolls x 3 Elastic bandages: 3" x 3
<b>OBJECTIVE:</b>	In a clinical setting, apply sugar tong splint.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF SHORT ARM SUGAR TONG SPLINT</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine splint requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (elbow flexed at 90 degrees, wrist slightly extended at 10 – 20 degrees, forearm in neutral position, thumb up) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Measure splint material on uninjured side to determine length. Measure from the proximal MCP joint, dorsally around the elbow and volarly to the distal palmar crease. Lay measured length on flat surface and roll plaster rolls back and forth to create a 10-15 thickness splint of plaster material.		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1” distal to MCP joints and ending 1” above elbow. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip splinting material into cold water if using synthetic splinting material or tepid (lukewarm) water if using plaster.		
9. Remove excess water from splinting material.		
10. Apply splinting material beginning proximal to the MCP joint, dorsally around the elbow and volarly to the distal palmar crease.		
11. Secure splint in place with ace bandage starting from distal to proximal.		
12. Use tape instead of clips to secure ace if applying to young child.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around splint.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on splint care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS***APPLICATION OF ULNA GUTTER SPLINT*

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Ulna Gutter Splint
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.2.3. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 4 x 15" splint x 10-15 (use 5 x 30" splints for larger patients) Webril: 2" rolls x 3 Elastic bandages: 3" x 2
<b>OBJECTIVE:</b>	In a clinical setting, apply sugar tong splint.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF ULNA GUTTER SPLINT</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine splint requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (wrist in 0-15 degrees of extension, with no radial or ulnar deviation and no pronation or supination.) Place 4 <sup>th</sup> and 5 <sup>th</sup> digits at 70-90 degrees flexion at MCP joint and slight flexed at PIP joint or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Measure splint material on uninjured side to determine length. Measure from the tips of the 4 <sup>th</sup> and 5 <sup>th</sup> digits down the ulna side of the forearm to 1” distal to the cubital space. Fabricate 10-15 thicknesses of plaster material to length.		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to the tips of the 4 <sup>th</sup> and 5 <sup>th</sup> digits down the ulna side of the forearm to 1” distal to the cubital space. Place webril in between fingers to prevent skin maceration. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip splinting material into cold water if using synthetic splinting material or tepid (lukewarm) water if using plaster.		
9. Remove excess water from casting material.		
10. Apply splinting material covering the 4 <sup>th</sup> and 5 <sup>th</sup> digits, starting from the dorsal side of the fourth around the fifth and ending the splint opposite the starting point. Ensure coverage of both 4 <sup>th</sup> and 5 <sup>th</sup> MCPs. The splint should extend distally down the ulna side of the forearm to 1” distal to the cubital space.		
11. Secure splint in place with ace bandage starting from distal to proximal.		
12. Use tape instead of clips to secure ace if applying to young child.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around splint.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on splint care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF LONG ARM POSTERIOR SPLINT***

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Long Arm Posterior Splint
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.2.6. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 5 x 30 “ splints 10-15 thicknesses for posterior; 5 thicknesses for medial and lateral supports Webriil: 3” rolls x 3 Elastic bandages: 3” x 3
<b>OBJECTIVE:</b>	In a clinical setting, apply long arm posterior splint.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee’s CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF LONG ARM POSTERIOR SPLINT</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine splint requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (elbow flexed at 90 degrees, wrist slightly extended at 10 – 20 degrees, with no pronation or supination/ulnar or radial deviation) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Measure splint material on uninjured side to determine length. Measure from the distal palmar crease to 2” distal to the axilla on the posterior side of the arm. Fabricate a 10-15 thickness splint of plaster material.		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1” distal to MCP joints and ending 2” distal to the axilla. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip splinting material into cold water if using synthetic splinting material or tepid (lukewarm) water if using plaster.		
9. Remove excess water from splinting material.		
10. Apply splinting material beginning from the distal palmar crease to 2” distal to the axilla on the posterior side of the arm. Add splint supports (5-10 thicknesses) on the medial and lateral bend of the elbow.		
11. Secure splint in place with ace bandage starting from distal to proximal.		
12. Use tape instead of clips to secure ace if applying to young child.		
13. Maintain proper position of extremity until splint has dried.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around splint.		
2. Ensure patient comfort and circulation.		
3. Fit sling to patient and instruct on use if/as directed by provider.		
4. Brief patient on splint care procedures and precautions.		
5. Document medical records or AF Form 600.		
6. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF LONG ARM SUGAR TONG SPLINT***

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Long Arm Sugar Tong Splint
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.2.7. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 4" rolls x 5-6 Webril: 3" rolls x 3 Elastic bandages: 3" x 3
<b>OBJECTIVE:</b>	In a clinical setting, apply long arm double sugar tong splint.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF LONG ARM SUGAR TONG SPLINT</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine splint requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (elbow flexed at 90 degrees, wrist slightly extended at 10 – 20 degrees, forearm in neutral position, thumb up) or as directed by physician.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Measure splint material on uninjured side to determine length. Measure first splint from the proximal MCP joint, dorsally around the elbow and volarly to the distal palmar crease. Lay measured length on flat surface and roll plaster rolls back and forth to create a 10-15 thickness splint of plaster material. Measure second splint 2” distal to axilla, medially around elbow and lateral up the arm ending opposite to the beginning. (If using synthetic splint material, use 3-4 thicknesses).		
4. Roll webril around extremity, wrinkle free, beginning at wrist, proceed wrapping distally to 1” distal to MCP joints and ending 2” distal to axilla. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip splinting material into cold water if using synthetic splinting material or tepid (lukewarm) water if using plaster.		
9. Remove excess water from splinting material.		
10. Apply the first splint beginning proximal to the MCP joint, dorsally around the elbow and volarly to the distal palmar crease. Have assistant assist in holding plaster. Apply second splint 2” distal to axilla, medially around elbow over the first splint and lateral up the arm ending opposite to the beginning.		
11. Secure splint in place with ace bandage starting from distal to proximal.		
12. Use tape instead of clips to secure ace if applying to young child.		
13. Maintain proper position of extremity until splint has dried.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around splint.		
2. Ensure patient comfort and circulation.		
3. Brief patient on splint care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF LONG LEG POSTERIOR SPLINT***

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Long Leg Posterior Splint
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.2.8. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 6" rolls x 5-6 (enough for 15-20 thicknesses) Webril: 6" rolls x 4 Elastic bandages: 6" x 3
<b>OBJECTIVE:</b>	In a clinical setting, apply long leg posterior splint.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF LONG LEG POSTERIOR SPLINT</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine splint requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (ankle in neutral position/90 degrees of dorsiflexion and knee at 0-15 degrees of flexion) or as directed by physician. This may take two technicians.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Measure splint material on uninjured side to determine length. Measure posteriorly from the tips of the toes proximally to 4" distal to the groin. Lay measured length on flat surface and roll plaster rolls back and forth to create a 15-20 thickness splint of plaster material.		
4. Roll webril around extremity, wrinkle free, beginning at the metatarsal heads, proceed wrapping proximally to 3" distal to the groin. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip splinting material into cold water if using synthetic splinting material or tepid (lukewarm) water if using plaster.		
9. Remove excess water from splinting material.		
10. Apply splinting material beginning posteriorly from the tips of the toes proximally to 4" distal to the groin. Ensure splint is centered posteriorly on extremity.		
11. Secure splint in place with ace bandage starting from distal to proximal.		
12. Use tape instead of clips to secure ace if applying to young child.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient's exposed skin around splint.		
2. Ensure patient comfort and circulation.		
3. Brief patient on splint care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF SHORT LEG POSTERIOR SPLINT***

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Short Leg Posterior Splint
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.2.9.. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 5 x 30" splints x 15-20 thicknesses Webriil: 4" rolls x 3 Elastic bandages: 6" x 2
<b>OBJECTIVE:</b>	In a clinical setting, apply short leg posterior splint.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.

**EVALUATION INSTRUCTIONS:**

1. This QTP should be evaluated during actual performance of the tasks.
2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. **The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.** Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.
3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, *without assistance*.
4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.
5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, *Special Task Certification and Recurring Training*, or using an approved substitute record.

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF SHORT LEG POSTERIOR SPLINT</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine splint requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (ankle in neutral or 90 degrees of dorsiflexion with neither inversion or eversion) or as directed by physician. This is most easily accomplished by have patient lay in the prone position and flexing the knee at 90 degrees.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Measure first splint material on uninjured side to determine length. Measure from the tips of the toes upward to 3” distal to the popliteal region of the knee. Fabricate 10-15 thickness splint of plaster material. The other 5-10 thicknesses will be used for the stirrup for medial and lateral support.		
4. Roll webril around extremity, wrinkle free, beginning at the metatarsal heads and proceed to 2” distal to the popliteal region of the knee. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess webril to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip splinting material into cold water if using synthetic splinting material or tepid (lukewarm) water if using plaster.		
9. Remove excess water from splinting material.		
10. Apply first splint beginning at the metatarsal heads and proceed to 3” distal to the popliteal region of the knee. Apply second splint in a stirrup fashion starting on the lateral aspect of the leg going down over the first splint around the ankle and ending on the medial aspect of the leg opposite the starting point.		
11. Secure splint in place with ace bandage starting from distal to proximal.		
12. Use tape instead of clips to secure ace if applying to young child.		
13. Place a pillow lengthwise under extremity and maintain proper position of extremity until splint has dried.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around splint.		
2. Ensure patient comfort and circulation.		
3. Brief patient on splint care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM CAST/SPLINT APPLICATIONS*****APPLICATION OF SHORT LEG ROBERT JONES SPLINT/DRESSING***

<b>SUBJECT AREA:</b>	Perform Splint Applications
<b>TASK(s):</b>	Application of Short Leg Robert Jones Splint/Dressing
<b>CFETP/STS REFERENCE(s):</b>	20.2.1.2.10. Apply and remove orthopedic devices/braces.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Handbook of Orthopaedic Emergencies</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Gloves Bucket for water (tepid) Plaster or fiberglass material: 5 x 30" splints x 15-20 thicknesses Bulk Cotton Elastic bandages: 6" x 2
<b>OBJECTIVE:</b>	In a clinical setting, apply short leg Robert Jones splint.
<b>REMARKS/NOTES:</b>	The principal danger of splinting an extremity that has recently been injured, manipulated or operated on is causing an iatrogenic compartment syndrome when the extremity swells in a limited space. Splints should be carefully wrapped to prevent this complication.
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM CAST/SPLINT APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>APPLICATION OF SHORT LEG ROBERT JONES SPLINT/DRESSING</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine splint requirements.		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Position patient in position of function (ankle in neutral or 90 degrees of dorsiflexion with neither inversion or eversion) or as directed by physician. This is most easily accomplished by have patient lay in the prone position and flexing the knee at 90 degrees.		
2. Inspect skin for integrity/injury; remove jewelry.		
3. Measure first splint material on uninjured side to determine length. Measure from the tips of the toes upward to 3” distal to the popliteal region of the knee. Fabricate 10-15 thickness splint of plaster material. The other 5-10 thicknesses will be used for the stirrup for medial and lateral support.		
4. Roll bulk cotton around extremity, wrinkle free, beginning at the metatarsal heads and proceed to 2” distal to the popliteal region of the knee. Pay close attention to bony prominences.		
5. Ensure proper overlap (approximately 50%).		
6. Remove excess cotton to ensure no pressure points.		
7. Ensure patient/extremity is positioned properly.		
8. Dip splinting material into cold water if using synthetic splinting material or tepid (lukewarm) water if using plaster.		
9. Remove excess water from splinting material.		
10. Apply first splint beginning at the metatarsal heads and proceed to 3” distal to the popliteal region of the knee. Apply second splint in a stirrup fashion starting on the lateral aspect of the leg going down over the first splint around the ankle and ending on the medial aspect of the leg opposite the starting point.		
11. Secure splint in place with ace bandage starting from distal to proximal.		
12. Use tape instead of clips to secure ace if applying to young child.		
13. Place a pillow lengthwise under extremity and maintain proper position of extremity until splint has dried.		
<b>FOLLOW-UP PHASE</b>		
1. Clean patient’s exposed skin around splint.		
2. Ensure patient comfort and circulation.		
3. Brief patient on splint care procedures and precautions.		
4. Document medical records or AF Form 600.		
5. Discard used items and return unused items to storage.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

**PERFORM TRACTION APPLICATIONS***APPLICATION OF BUCK'S TRACTION*

<b>SUBJECT AREA:</b>	Perform Traction Application
<b>TASK(s):</b>	Setup and Application of Buck's traction
<b>CFETP/STS REFERENCE(s):</b>	20.2.2.4.1. Traction.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Zimmer Traction Handbook (12/20/2000)</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX).</u>
<b>EQUIPMENT REQUIRED:</b>	Basic frame setup 5 inch single clamp bar x 1 9 inch single clamp bar x 2 Pulley x 1 Universal traction splint Weight carrier Traction cord x 5 feet Weights: as ordered by physician Zimmer Traction Handbook
<b>OBJECTIVE:</b>	In a clinical/ward setting, setup and apply Buck's traction.
<b>REMARKS/NOTES:</b>	Skin traction should not be used on fractures which require more than five to seven pounds of longitudinal force because of the possibility of sever skin irritation. There is also risk of neurovascular and circulatory compromise due to immobilization of the patient and pressure points caused by external pressure on the skin. <b>BOTTOM LINE: NEVER IGNORE A PATIENT'S COMPLAINT.</b>
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM TRACTION APPLICATIONS**

**PERFORMANCE CHECKLIST**

<i>SETUP AND APPLICATION OF BUCK'S TRACTION</i>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine traction requirements. (Always have traction handbook available when applying traction.)		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Attach basic frame setup to bed.		
2. Attach one 5 inch single clamp bar to upright bar at foot of bed.		
3. Attach one 9 inch single clamp bar to 5 inch single clamp bar.		
4. Attach pulley to 9 inch single clamp bar.		
5. Inspect extremity for any skin conditions and clean if necessary.		
6. Apply universal traction splint to leg.		
7. Tie traction cord to splint, thread through pulley, then tie to weight carrier.		
8. Apply weights.		
9. Check alignment of extremity.		
10. Tape rope ends to prevent slipping.		
<b>FOLLOW-UP PHASE</b>		
1. Ensure patient comfort and circulation.		
2. Ensure wrappings are not too tight across the dorsum of foot.		
3. Ensure heels are not digging into mattress to prevent skin irritation and skin breakdown.		
4. Ensure pressure is kept off peroneal nerve to prevent footdrop.		
5. Inform nursing personnel upon completion of task.		
<b>FINAL RESULTS/NOTES:</b>		

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee’s performance indicating strengths, weaknesses, suggested improvements, etc.

## PERFORM TRACTION APPLICATIONS

### *SETUP AND APPLICATION OF BALANCED SUSPENSION WITH SKIN TRACTION*

<b>SUBJECT AREA:</b>	Perform Traction Application
<b>TASK(s):</b>	Setup and Application of Balanced Suspension with Skin Traction
<b>CFETP/STS REFERENCE(s):</b>	20.2.2.4.2. Traction.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Zimmer Traction Handbook (12/20/2000)</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX)</u>
<b>EQUIPMENT REQUIRED:</b>	Basic frame setup 9 inch single clamp bar x 4 18 inch single clamp bar x 1 Pulleys x 6 Thomas leg splint Pearson attachment Full length polyester pile sling Spreader bar Universal traction splint Weight carrier Traction cord x 5 feet Weights: as ordered by physician Zimmer Traction Handbook
<b>OBJECTIVE:</b>	In a clinical/ward setting, setup and apply Balanced suspension with skin traction.
<b>REMARKS/NOTES:</b>	Skin traction should not be used on fractures which require more than five to seven pounds of longitudinal force because of the possibility of sever skin irritation. There is also risk of neurovascular and circulatory compromise due to immobilization of the patient and pressure points caused by external pressure on the skin. <b>BOTTOM LINE: NEVER IGNORE A PATIENT'S COMPLAINT.</b>
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM TRACTION APPLICATIONS**  
**PERFORMANCE CHECKLIST**

<b>SET UP/APPLICATION OF BALANCE SUSPENSION WITH SKIN TRACTION</b>	<b>SAT</b>	<b>UNSAT</b>
<b>PREPARATORY PHASE</b>		
1. Review orders to determine traction requirements. (Always have traction handbook available when applying traction.)		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Attach basic frame setup to bed.		
2. Attach one 9 inch single clamp bar with pulley to overhead bar above hip on same side of injury.		
3. Attach one 9 inch single clamp bar with pulley to overhead bar near foot of bed facing side of injury.		
4. Attach one 9 inch single clamp bar to upright bar at foot of bed.		
5. Attach one 18 inch single clamp bar with two pulleys to 9 inch single clamp bar so that it extends across line of injured leg.		
6. Attach pulley to 9 inch single clamp bar.		
7. Attach one 9 inch single clamp bar at a 45 degree angle on the same side as the injured extremity.		
8. Attach Pearson Attachment to Thomas or Brady Leg splint with point of attachment at patient's knee joint.		
9. Form cradle for leg by attaching polyester pile slings to splint and Pearson attachment.		
10. Lift leg and move splint and Pearson attachment under leg with ring resting loosely against ischial tuberosity.		
11. Apply universal traction splint to leg.		
12. Tie one end of traction cord to the proximal lateral end of the splint. Wrap cord three times around the spreader bar and tie on the opposite side of the splint.		
13. Tie another traction cord to center of spreader bar, thread through pulley above hip, then through top pulley at foot of bed, and tie to weight carrier.		
14. Thread another traction cord through the rope locators on the distal end of the splint. Tie loose end of traction cord back onto itself to form a triangle. Next, thread traction cord through pulley on 9 inch single clamp bar above bed, and then through outside pulley on 18 inch single clamp bar at end of bed. Finally, tie to weight carrier.		
15. Tie another traction cord to end of Pearson attachment and tie to distal end of splint.		
16. Tie traction cord to foot plate on traction splint, thread through pulley on lower 9 inch single clamp bar, then tie to weight carrier.		
17. Apply weights. Distribution of the weight through the various elements should be arranged so that a delicate balance of traction and counter-traction is maintained.		
<b>FOLLOW-UP PHASE</b>		
1. Ensure patient comfort and circulation.		
2. Ensure meticulous skin care and decubitus prevention measures are carried.		
3. Ensure leg does not rotate externally and place pressure on the peroneal nerve. Have nursing personnel check neurovascular status every two hours.		
4. If elastic bandages are used, check frequently for excessive pressure at the site of the fibular head and dorsum of foot.		
5. Slings should be positioned so that the heel and Achilles tendon do not carry the weight of the lower leg.		
6. Inform nursing personnel upon completion of task.		

**FINAL RESULTS/NOTES:**

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.

## PERFORM TRACTION APPLICATIONS

### SETUP/APPLICATION OF BALANCED SUSPENSION WITH SKELETAL TRACTION

<b>SUBJECT AREA:</b>	Perform Traction Application
<b>TASK(s):</b>	Balanced Suspension with Skeletal Traction
<b>CFETP/STS REFERENCE(s):</b>	20.2.2.4.3. Traction.
<b>TRAINING REFERENCE(s):</b>	<u>Orthopaedics</u> <u>Zimmer Traction Handbook (12/20/2000)</u> <u>Interservice Orthopedic Specialist Student Handbook- METC (Ft. Sam Houston, TX.</u>
<b>EQUIPMENT REQUIRED:</b>	Basic frame setup 9 inch single clamp bar x 4 18 inch single clamp bar x 2 Pulleys x 8 Thomas leg splint Pearson attachment Full length polyester pile sling Spreader bar Weight carrier Traction cord x 5 feet Weights: as ordered by physician Zimmer Traction Handbook
<b>OBJECTIVE:</b>	In a clinical/ward setting, setup and apply Balanced suspension with skeletal traction.
<b>REMARKS/NOTES:</b>	Potential complications with skeletal traction are related to the pin migration and pin tract infection. Occasionally pin tract infections can lead to osteomyelitis. There is also risk of neurovascular and circulatory compromise due to immobilization of the patient and pressure points caused by external pressure on the skin. <b>BOTTOM LINE: NEVER IGNORE A PATIENT'S COMPLAINT.</b>
<b>EVALUATION INSTRUCTIONS:</b>	<ol style="list-style-type: none"> <li>1. This QTP should be evaluated during actual performance of the tasks.</li> <li>2. Since this task involves direct patient care, ensure the trainee understands the process, knows inherent risk factors, and is closely supervised during the evaluation. <b>The evaluator will STOP the procedure immediately and correct the trainee if performance may compromise patient safety.</b> Ensure the trainee dons all personal protective equipment (PPE) required by current standards/precautions and follows applicable radiation safety guidelines.</li> <li>3. The trainee must satisfactorily perform all parts of the task with 100% accuracy, <i>without assistance</i>.</li> <li>4. Use the appropriate checklist when evaluating the task to ensure all steps of the task are accomplished.</li> <li>5. Document competency upon satisfactory completion of the evaluation. Initial evaluation should be documented in the Specialty Training Standard (STS) of the trainee's CFETP. All recurring evaluation should be documented using AF Form 1098, <i>Special Task Certification and Recurring Training</i>, or using an approved substitute record.</li> </ol>

**PERFORM TRACTION APPLICATIONS**  
**PERFORMANCE CHECKLIST**

<i>SETUP AND APPLICATION OF BALANCED SUSPENSION WITH SKELETAL TRACTION</i>	SAT	UNSAT
<b>PREPARATORY PHASE</b>		
1. Review orders to determine traction requirements. (Always have traction handbook available when applying traction.)		
2. Gather needed supplies.		
3. Greet and explain the procedure to the patient. Help the patient to relax as much as possible.		
<b>PERFORMANCE PHASE</b>		
1. Attach basic frame setup to bed.		
2. Attach one 9 inch single clamp bar to upright bar at foot of bed, extending beyond bed.		
3. Attach one 9 inch single clamp bar with pulley to overhead bar above hip on same side of injury.		
4. Attach one 9 inch single clamp bar with pulley to overhead bar near foot of bed facing side of injury.		
5. Attach one 18 inch single clamp bar with three pulleys to 9 inch single clamp bar on upright bar at foot of bed.		
6. Attach pulley to 9 inch single clamp bar.		
7. Attach Pearson Attachment to Thomas or Brady Leg splint with point of attachment at patient's knee joint.		
8. Form cradle for leg by attaching polyester pile slings to splint and Pearson attachment.		
9. Lift leg and move splint and Pearson attachment under leg with ring resting loosely against ischial tuberosity.		
10. Tie one end of traction cord to the proximal lateral end of the splint. Wrap cord three times around the spreader bar and tie on the opposite side of the splint.		
11. Tie another traction cord to center of spreader bar, thread through pulley above hip, then through top pulley at foot of bed, and tie to weight carrier.		
12. Thread another traction cord through the rope locators on the distal end of the splint. Tie loose end of traction cord back onto itself to form a triangle. Next, thread traction cord through pulley on 9 inch single clamp bar above bed, and then through outside pulley on 18 inch single clamp bar at end of bed. Finally, tie to weight carrier.		
13. Tie third traction cord to end of Pearson attachment and tie to distal end of splint.		
16. Tie traction cord to Bohler Steinmann Pin holder or Kirschner Wire tractor, thread through pulley on high 9 inch single clamp bar beyond bed and tie to weight carrier.		
17. Apply weights. Distribution of the weight through the various elements should be arranged so that a delicate balance of traction and counter-traction is maintained.		
<b>FOLLOW-UP PHASE</b>		
1. Ensure patient comfort and circulation.		
2. Ensure meticulous skin care and decubitus prevention measures are carried.		
3. Ensure leg does not rotate externally and place pressure on the peroneal nerve. Have nursing personnel check neurovascular status every two hours.		
4. If elastic bandages are used, check frequently for excessive pressure at the site of the fibular head and dorsum of foot.		
5. Slings should be positioned so that the heel and Achilles tendon do not carry the weight of the lower leg.		
6. Inform nursing personnel upon completion of task.		

**FINAL RESULTS/NOTES:**

**FEEDBACK:** Using this checklist as a source of information, discuss the trainee's performance indicating strengths, weaknesses, suggested improvements, etc.



