

EMT-BASIC TEACHING AND TESTING GUIDELINES



**UTAH DEPARTMENT OF HEALTH
DIVISION OF HEALTH SYSTEMS IMPROVEMENT
BUREAU OF EMERGENCY MEDICAL SERVICES**

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INTRODUCTION

The Utah Bureau of Emergency Medical Services developed this manual for Utah emergency medical service providers, especially Emergency Medical Technician-Basic students in initial training. It is designed solely as a guide for teaching and testing of emergency medical service providers; and is intended to provide support to instructors and educators of EMT-Basic students. This manual identifies some of the expected performance of EMT-Bs when faced with a variety of emergency situations. These are not intended to be absolute teaching, testing, or treatment doctrines but rather guidelines which will have sufficient flexibility to meet the complex cases presented to EMTs in the field. The final authority for field performance rests with the Medical Director of the agency.

The 1994 Department of Transportation EMT-Basic National Standard Curriculum was used as a reference in the creation of this manual. This manual is formatted to facilitate its use in many different ways. The first column (column 1) lists the performance expected and the second column (column 2) lists suggested procedures or activities and includes some additional information that may be useful for teaching. The Teaching and Testing Guidelines (TTGs) can be used to check off performance and knowledge of procedures as training or testing is performed.

These guidelines are NOT intended to be a sequential approach to patient care where everything must be done in the exact order written. Body Substance Isolation, Scene Size-up, Initial Assessment, Focused or Rapid Assessment, Vital Signs, SAMPLE History, Detailed Physical Exam, Ongoing Assessment, Communication, and Documentation are to be executed in all situations. All other TTGs are to be performed as needed for specific situations. For example, if during the Initial Assessment, life-threatening bleeding is found, the appropriate bandaging/bleeding control should be performed prior to completing the Initial Assessment.

These guidelines are not inclusive or absolute with respect to testing performed by the Utah State Bureau of Emergency Medical Services. Please direct any discrepancies in the Teaching and Testing Guidelines to the Bureau of Emergency Medical Services.

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EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-01 SCENE SIZE UP

PERFORMANCE	PROCEDURES
Perform Body Substance Isolation (BSI) (Precautions to protect the EMT from exposure to disease, bodily fluids, hazmat, etc.)	<ul style="list-style-type: none"> — Gloves required — Eye protection recommended — Mask as necessary — Gown as necessary
Scene Safety (Determine if the scene is safe before approaching a patient)	<ul style="list-style-type: none"> — Assess total scene for complete safety — If scene is unsafe -DO NOT ENTER! — Ensure personal safety — Ensure crew safety — Ensure bystander safety — Ensure patient safety
Additional Resources (Assess need for additional or specialized assistance)	<ul style="list-style-type: none"> — Assess if Law Enforcement is needed — Assess if Fire Department is needed — Assess if Hazmat Team is needed — Assess if Power Company is needed — Assess if Other resources is needed
Number of Patients (Determine number of patients)	<ul style="list-style-type: none"> — If responding crew can handle, proceed with assessment — If more patients than responding crew can handle, initiate Mass Casualty Incident Plan (MCI). Consider Triage
Re-evaluate Scene Safety Continually	<ul style="list-style-type: none"> — If the scene becomes unsafe at any time, leave

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-02 INITIAL ASSESSMENT

Check patient for life threats and treat immediately

PERFORMANCE	PROCEDURES
Mechanism of Injury or Nature of Illness (Determine whether MOI or NOI)	<p>— Medical - Assess Nature of Illness (NOI)</p> <p>— Trauma - Assess mechanism of injury (MOI)</p>
Consider Spinal Immobilization	— Consider spinal immobilization
Form General Impression	<p>— Determine age, gender, and race</p> <p>— Evaluate the patients overall appearance and the environment</p>
Identify Self, Obtain Consent to Treat	— Identify yourself and ask if you can help
Determine Chief Complaint	— Inquire: “What is the problem?”
Level of Consciousness (LOC)	<p>— Determine initial Level of Consciousness using AVPU</p> <ul style="list-style-type: none"> • <u>A</u>lert, • <u>V</u>erbal • <u>P</u>ainful • <u>U</u>nresponsive
Assess <u>A</u> irway	— Open airway using appropriate technique
Assess <u>B</u> reathing	<p>— Look, listen, and feel for breathing</p> <p>— Check for adequacy of breathing</p> <p>— Assess chest rise and fall</p>
Assess <u>C</u> irculation	<p>— Check for pulse</p> <ul style="list-style-type: none"> • Radial pulse if patient is alert • Carotid pulse if patient is unconscious • Brachial pulse if patient is an infant <p>— Assess for major bleeding</p> <p>— If life-threatening bleeding is found control immediately</p>
Provide oxygen (O ₂)	<p>— Non-rebreather mask at 15 liters/minute if:</p> <ul style="list-style-type: none"> • Responsive or unresponsive patient with adequate breathing <p>— Assisted ventilations with bag valve mask and adjuncts if:</p> <ul style="list-style-type: none"> • Patient is responsive with inadequate depth or rate (Adult < 8 or > 24, Pediatric <20) • Unresponsive patient with inadequate breathing • Patient in respiratory arrest <p>— Check for adequacy of ventilation by assessing chest rise and fall</p>
Identify Priority Patients and Transport Decision	<p>— Expedite transport and consider ALS back up if patient meets <i>any</i> of these criteria:</p> <ul style="list-style-type: none"> • If patient condition is beyond abilities of responding crew • Poor general impression • Unresponsive or altered LOC • Respiratory difficulty • Shock (hypo-perfusion) • Complicated childbirth • Chest pain with BP less than 100 systolic • Uncontrolled bleeding • Severe pain anywhere • Pediatric or geriatric concerns

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-03 PHYSICAL EXAM FOR TRAUMA PATIENT

**Perform Rapid Assessment OR Focused Physical Exam
based on evaluation of MOI**

PERFORMANCE	PROCEDURES
RAPID TRAUMA ASSESSMENT <ul style="list-style-type: none"> • For significant trauma (2 or more systems) • For all unresponsive trauma patients <p>Inspect and palpate quickly using Deformities, Contusions, Abrasions, Punctures, Burns, Tenderness, Lacerations, Swelling (DCAPBTLS)</p>	
Assess Head	— Inspect and palpate head while ensuring patent airway
Assess Neck	— Inspect and palpate cervical spine — Apply C-collar
Assess Chest	— Inspect and palpate chest — Auscultate breath sounds
Assess Abdomen	— Inspect and palpate all four abdominal quadrants
Assess Pelvis	— Inspect and gently compress
Assess Extremities	— Inspect and palpate all extremities — Check all extremities for pulse, motor and sensory functions (PMS) Some agencies also use the acronym circulation, motor and sensory functions (CMS)
Assess Posterior	— Inspect and palpate back and spine
Re-evaluate: <ul style="list-style-type: none"> • ALS • Transport Priority 	— Re-evaluate need for Advanced Life Support (ALS) based on findings — Re-evaluate transport decision based on findings
FOCUSED PHYSICAL EXAM <ul style="list-style-type: none"> • For non-significant trauma <p>Inspect and palpate using DCAPBTLS acronym</p>	
Assess Area of Patient Complaint	— Inspect and palpate each area in which patient complains of pain, auscultate when appropriate

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-04 PHYSICAL EXAM FOR MEDICAL PATIENT

**Perform Rapid Physical Exam OR Focused Physical Exam
based on evaluation of patient mental status**

PERFORMANCE	PROCEDURES
RAPID PHYSICAL EXAM <ul style="list-style-type: none"> For unresponsive medical patients 	
Inspect and palpate the following areas quickly using DCAPBTLS acronym	
Assess Head	<input type="checkbox"/> Inspect and palpate head, ears, eyes, and facial bones, ensuring patent airway
Assess Neck	<input type="checkbox"/> Inspect and palpate cervical spine <input type="checkbox"/> Apply C-collar if needed
Assess Chest	<input type="checkbox"/> Inspect and palpate chest <input type="checkbox"/> Auscultate breath sounds
Assess Abdomen	<input type="checkbox"/> Inspect and palpate abdominal quadrants
Assess Pelvis	<input type="checkbox"/> Inspect and gently compress
Assess Extremities	<input type="checkbox"/> Inspect and palpate all extremities <input type="checkbox"/> Check all extremities for PMS
Assess Posterior	<input type="checkbox"/> Inspect and palpate back and spine
Re-evaluate: <ul style="list-style-type: none"> ALS Transport Priority 	<input type="checkbox"/> Re-evaluate need for ALS based on findings <input type="checkbox"/> Re-evaluate transport decision based on findings
FOCUSED PHYSICAL EXAM <ul style="list-style-type: none"> For conscious medical patients 	
Inspect and palpate using DCAPBTLS acronym	
Assess Area of Patient Complaint	<input type="checkbox"/> Inspect and palpate each area in which patient complains of pain, auscultate when appropriate

EMT BASIC TEACHING AND TESTING GUIDELINES

TTG-05 SAMPLE History

Obtain history early in assessment

PERFORMANCE	PROCEDURES
Obtain SAMPLE History	___ Obtain from patient first if available; if not available obtain from family, friends, bystanders, or environment ___ Consider medical identification tags or cards
<u>S</u> igns/Symptoms	___ Inquire about Signs : <ul style="list-style-type: none"> • Conditions identifiable through hearing, seeing, feeling, smelling ___ Inquire about Symptoms : <ul style="list-style-type: none"> • Conditions described by the patient that are not seen, heard or felt, such as feeling faint, fingers are tingling, nausea, etc
<u>A</u> llergies:	___ Inquire about Allergies : <ul style="list-style-type: none"> • Medications • Foods • Environment
<u>M</u> edications	___ Inquire about Medications including any recent change in dosage or brand: <ul style="list-style-type: none"> • Prescriptions • Over the counter medications (non-prescription) • Recreational • Herbal • Diabetic
<u>P</u> ertinent Medical History	___ Inquire about Pertinent Medical History : <ul style="list-style-type: none"> • Possible pregnancy • Heart problems • Seizures • Breathing problems • Diabetes • Other
<u>L</u> ast Oral Intake	___ Inquire about Last Oral Intake : <ul style="list-style-type: none"> • Food • Drink • Time • Quantity
<u>E</u> vents Leading up to the Emergency	___ Inquire about Events leading to injury or illness Example: “Were you light headed before your fall?”

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-06 HISTORY OF THE PRESENT ILLNESS

PERFORMANCE	PROCEDURES
Obtain History of the Present Illness Using OPQRST	<input type="checkbox"/> Obtain from patient first if available; if not available obtain from family, friends, bystanders, or environment <input type="checkbox"/> Consider medical identification tags or cards
Assess Complaints and Signs or Symptoms:	<input type="checkbox"/> Assess complaints and signs or symptoms using OPQRST
<u>O</u> nset	Inquire: <input type="checkbox"/> When did the pain or discomfort start <input type="checkbox"/> What were you doing when the pain started
<u>P</u> rovokes	Inquire: <input type="checkbox"/> Is there anything that makes it better <input type="checkbox"/> Is there anything that makes it worse
<u>Q</u> uality	Inquire: <input type="checkbox"/> Describe the pain or discomfort <input type="checkbox"/> How does it feel (Allow patient to describe in own words)
<u>R</u> adiates	Inquire: <input type="checkbox"/> Does the pain radiate anywhere <input type="checkbox"/> Does it hurt or cause discomfort anywhere else
<u>S</u> everity (or <u>S</u> cale)	Inquire: <input type="checkbox"/> Rate severity of pain using scale of 1-10 (0 = no pain, 10 = most severe)
<u>T</u> ime	Inquire: <input type="checkbox"/> Is the pain getting better or worse as time goes on <input type="checkbox"/> How has the pain changed over time

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-07 BASELINE VITAL SIGNS

Baseline vital signs should be taken early in assessment

PERFORMANCE	PROCEDURES
Assess and Record Breathing Rate	<ul style="list-style-type: none"> — Do not inform patient that you are checking breathing to avoid influencing rate — Observe chest rise and fall — Count number of breaths in 30 seconds and multiply by two — Identify quality of breathing <ul style="list-style-type: none"> • Normal • Shallow • Labored • Noisy — Obtain and record SaO₂ (pulse oximetry) if available (TTG-13)
Assess and Record Pulse	<ul style="list-style-type: none"> — Assess radial pulse (brachial pulse in patients less than one year old) — If peripheral pulse is not palpable, assess carotid pulse — Count number of beats in 30 seconds and multiply by two — Identify quality of pulse <ul style="list-style-type: none"> • Strong/Weak • Regular/Irregular
Assess and Record Blood Pressure	<ul style="list-style-type: none"> — Determine proper size BP cuff (sphygmomanometer): <ul style="list-style-type: none"> • Bladder of cuff should cover one half of the arm circumference • If cuff is too small, the BP will be higher • If the cuff is too large, the BP will be lower — Place BP cuff on arm one inch above natural crease of elbow with bladder centered over brachial artery, wrap snugly — Inflate cuff while palpating radial pulse until it cannot be felt, make mental note of the reading — Without stopping, continue to inflate cuff to 30mm above the level where pulse was obliterated — Apply stethoscope, place diaphragm of stethoscope over brachial artery at the antecubital fossa — Deflate cuff at approximately 2 mm per second — Record systolic pressure level where pulse beat is first heard — Record diastolic level where last pulse beat was heard and continue to deflate slowly — Record which limb was used to obtain BP — Record position of patient

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-07 BASELINE VITAL SIGNS (Continued)

PERFORMANCE	PROCEDURES
Assess and Record Skin Perfusion, Color , Temperature, and Condition (CTC)	<p>— Look at skin to determine Color:</p> <ul style="list-style-type: none"> • Normal skin color • Abnormal skin colors: <ul style="list-style-type: none"> • Pale - Poor perfusion due to decreased blood flow • Cyanotic - blue-gray color indicates poor perfusion • Flushed - red color indicates exposure to heat or CO • Jaundice - yellow color indicates liver difficulty
Assess and Record Skin Perfusion, Color, Temperature , and Condition (CTC)	<p>— Touch patient with gloved hand to determine Temperature:</p> <ul style="list-style-type: none"> • Normal temperature: <ul style="list-style-type: none"> • Warm • Consider obtaining patient temperature through use of a thermometer • Abnormal temperatures: <ul style="list-style-type: none"> • Cold • Cool • Hot
Assess and Record Skin Perfusion, Color, Temperature, and Condition (CTC)	<p>— Determine skin Condition:</p> <ul style="list-style-type: none"> • Normal condition: <ul style="list-style-type: none"> • Dry • Abnormal condition: <ul style="list-style-type: none"> • Clammy • Wet • Moist
Assess Capillary Refill (Primarily used for infants and children less than six years of age. This method may be less accurate in adults)	<p>— Assess by pressing on nail bed of finger or toe or by pressing on skin at the sternum, chin, or forehead</p> <ul style="list-style-type: none"> • Normal: <ul style="list-style-type: none"> • Capillary refill observed in less than two seconds • Abnormal: <ul style="list-style-type: none"> • Capillary refill observed in more than two seconds
Assess and Record Pupils	<p>— Assess for any abnormal findings</p> <p>— Assess by shining light into patient's eyes to determine size:</p> <ul style="list-style-type: none"> • Dilated (large) • Normal • Constricted (small) <p>— Assess by shining light into patient's eyes to determine equality:</p> <ul style="list-style-type: none"> • Equal • Unequal <p>— Assess by shining light into patient's eyes to determine reactivity:</p> <ul style="list-style-type: none"> • Reactive • Non-reactive <p>— Record pupillary findings</p>

NOTES:

- Blood pressure is not commonly obtained for children under 3 years of age, however blood pressure taken by palpation is appropriate in small children.

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-08 DETAILED PHYSICAL EXAM

Detailed Physical Exam is patient and injury specific

PERFORMANCE	PROCEDURES
Inspect and Palpate Each Area:	<input type="checkbox"/> Inspect and palpate the following areas using DCAPBTLS acronym
Head and Facial Bones	Inspect and palpate: <input type="checkbox"/> Cranium <input type="checkbox"/> Forehead <input type="checkbox"/> Orbits <input type="checkbox"/> Cheek bones <input type="checkbox"/> Maxilla (upper jaw) <input type="checkbox"/> Mandible (lower jaw)
Eyes	Look for: <input type="checkbox"/> Discoloration <input type="checkbox"/> Unequal pupils <input type="checkbox"/> Foreign bodies <input type="checkbox"/> Blood in anterior chamber
Mouth	Look for: <input type="checkbox"/> Broken or missing teeth <input type="checkbox"/> Obstructions <input type="checkbox"/> Swollen or lacerated tongue <input type="checkbox"/> Breath odors <input type="checkbox"/> Discoloration
Nose	<input type="checkbox"/> Inspect and palpate nasal bone <input type="checkbox"/> Assess for drainage, blood, or Cerebral Spinal Fluid (CSF)
Ears	<input type="checkbox"/> Inspect ears <input type="checkbox"/> Assess for drainage, blood, or CSF
Neck	<input type="checkbox"/> Inspect and palpate cervical spine <input type="checkbox"/> Assess for Jugular Vein Distention (JVD) <input type="checkbox"/> Assess for Tracheal Deviation
Upper Extremities	<input type="checkbox"/> Inspect and palpate upper arm (humerus) <input type="checkbox"/> Inspect and palpate elbow <input type="checkbox"/> Inspect and palpate lower arm (radius and ulna) <input type="checkbox"/> Check PMS: <ul style="list-style-type: none"> • Check for radial pulse in each extremity • Check for motor function in each extremity • Check for sensory function in each extremity
Chest	<input type="checkbox"/> Inspect and palpate clavicles <input type="checkbox"/> Inspect and palpate sternum <input type="checkbox"/> Inspect and palpate ribs <input type="checkbox"/> Assess for paradoxical motion <input type="checkbox"/> Auscultate breath sounds (present, equal, and bilateral) in all lung fields

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-08 DETAILED PHYSICAL EXAM (continued)

Abdomen	Inspect and palpate each of the 4 quadrants separately for: — Tenderness — Rigidity — Firmness, — Distention — Assess for pulsating mass (If patient complains of pain in one quadrant, check it last)
Lower Extremities	— Inspect and palpate upper leg (femur) — Inspect and palpate knee — Inspect and palpate lower leg (tibia and fibula) — Check PMS: <ul style="list-style-type: none">• Check for distal pulse in each extremity• Check for motor function in each extremity• Check for sensory function in each extremity
Back and Spine	— Inspect and palpate back and spine maintaining spinal precautions

EMT BASIC TEACHING AND TESTING GUIDELINES

TTG-09 ONGOING ASSESSMENT

**Unstable patients should be re-evaluated at least every 5 minutes and
stable patients should be re-evaluated at least every 15 minutes**

PERFORMANCE	PROCEDURES
Repeat Initial Assessment	<ul style="list-style-type: none"> — Reassess mental status — Maintain open airway — Monitor breathing for adequacy (rate, quality, and volume) — Reassess pulse rate and quality — Reassess bleeding control — Monitor skin CTC — Re-consider patient priorities
Repeat and Record Vital Signs	<ul style="list-style-type: none"> — Perform TTG-07
Check Interventions	<ul style="list-style-type: none"> — Assure adequacy of oxygen — Assure management of bleeding — Assure adequacy of all other interventions
Evaluate Patient Status	<ul style="list-style-type: none"> — Evaluate status of patient to ensure improvement — If not improving, consider additional or alternate interventions

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-10 COMMUNICATION

PERFORMANCE	PROCEDURES
Radio Communication	<ul style="list-style-type: none"> ___ Listen to frequency and ensure clear before transmission ___ Wait two seconds after pressing talk button before talking ___ Speak with mouth 2 to 3 inches from microphone ___ Address unit you are calling, then give your unit ___ Speak clearly and slowly ___ Keep transmissions brief ___ Avoid meaningless phrases (like “be advised”) ___ Use “affirmative” or “negative” rather than “yes” or “no” ___ Be clear when transmitting numbers ___ Do not use patient’s name over the radio ___ Do not use profanity
Communicating with Dispatch	<ul style="list-style-type: none"> ___ Notify dispatch that the call was received ___ Notify dispatch when en-route to the scene ___ Notify dispatch upon arrival at scene ___ Notify dispatch upon arrival at patient ___ Notify dispatch when en-route to the hospital ___ Notify dispatch upon arrival at hospital ___ Notify dispatch when en-route back to the service area ___ Notify dispatch upon return to the service area ___ Notify dispatch when back in service
Communicating with Patient	<ul style="list-style-type: none"> ___ Maintain eye contact with patient ___ Position yourself at a lower level than patient, if possible ___ Be honest ___ Use language patient can understand ___ Speak clearly, slowly, and distinctly ___ Use patient’s proper name
Communicating with Medical Control	<p>Radio Report Essentials:</p> <ul style="list-style-type: none"> ___ Identify unit and level ___ Estimated Time of Arrival (ETA) ___ Patient’s age and sex ___ Chief complaint ___ Brief pertinent history ___ Level of Conscious (LOC) ___ Baseline vitals ___ Pertinent findings of exam ___ Emergency medical care given ___ Response of patient to emergency medical care ___ Change in vital signs <p>Principals of Communication:</p> <ul style="list-style-type: none"> ___ Contact for consultation and orders ___ Give accurate information ___ After receiving an order, repeat back verbatim ___ Question orders that are unclear or appear to be inappropriate

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-11 DOCUMENTATION

PERFORMANCE	PROCEDURES
Pre-Hospital Care Report (PCR)	<ul style="list-style-type: none"> ___ Identify uses of pre-hospital report: <ul style="list-style-type: none"> • Provides continuity of care • A legal document • Educational • Administrative (billing and statistics) • Research • Patient care record
Run Data (Be sure to document all state mandated data reporting elements)	Document: <ul style="list-style-type: none"> ___ Response delays ___ Unit and crew members ___ Date ___ Times <ul style="list-style-type: none"> • Dispatch notified • Unit notified • En route • Arrived at scene • Arrived at patient • Left scene • Arrived at care facility • Back in service
Document Patient Data (Be sure to document all state mandated data reporting elements)	Document: <ul style="list-style-type: none"> ___ Patient information ___ Insurance information ___ Nature of call ___ Treatment administered prior to arrival of EMS ___ Chief complaint ___ Signs and Symptoms ___ Interventions ___ Baseline vital signs ___ Medications administered ___ Sample history ___ Changes in condition
Narrative Section	<ul style="list-style-type: none"> ___ Write legibly ___ Describe what you saw and heard ___ Include pertinent negatives ___ Document sources of sensitive information

- Utah Bureau of Emergency Medical Services pre-hospital report www.polaris.utah.gov
- Nation Emergency Medical Services Information System www.nemsis.org

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-11 DOCUMENTATION (Continued)

Patient Refusal	<ul style="list-style-type: none"> — Determine if patient is able to make rational, informed decisions — Inform patient why they should seek medical attention — Inform patient what may happen if they don't seek medical attention — Consult medical direction — Document any assessment findings and medical care given — Have patient sign refusal form if possible — Have family member, police officer, or bystander sign as witness
Patient Refuses to Sign Refusal	<ul style="list-style-type: none"> — Have family member, police officer, or bystander sign form verifying that the patient refused to sign a refusal form
Correction of Errors	<p>Discovered during completing:</p> <ul style="list-style-type: none"> — If using a hard copy, draw a single horizontal line through error, initial it, and write correct information beside it <p>Discovered after completing:</p> <ul style="list-style-type: none"> — If using a hard copy draw a single horizontal line through error, preferably with a different color ink, initial it, write correct information beside it
Mass Casualty Incidents (MCI)	<ul style="list-style-type: none"> — When there is not enough time to complete documentation before the next call, use triage tags to temporarily note information that can be used as a referenced source to complete documentation later

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-12 OXYGEN DELIVERY SYSTEMS

PERFORMANCE	PROCEDURES
Set Up Oxygen Tank (Oxygen cylinders should always be supported)	<ul style="list-style-type: none"> — Ensure tank is secure — Face away from opening, slowly open and close the tank valve momentarily to remove foreign material from opening — Inspect regulator for damage and ensure an appropriate gasket or washer is in place — Turn flow selector valve on the regulator to “OFF” or “0” — Attach regulator to tank — S-L-O-W-L-Y open tank valve fully (minimum of 2 revolutions) — Check for leaks — Check tank pressure to ensure adequate O₂ present
Attach Oxygen to Flowmeter	<ul style="list-style-type: none"> — Connect tubing to flowmeter
Use of Nonrebreather Mask	<ul style="list-style-type: none"> — Select correct size mask — Set flowmeter to 15 liters per minute — Inflate bag before placing mask on patient
Use of Nasal Cannula (Use only when patient will not tolerate a mask)	<ul style="list-style-type: none"> — Select correct sized cannula — Set flow meter between 2 and 6 liters per minute
Apply Oxygen Device to Patient.	<ul style="list-style-type: none"> — Explain the need for oxygen to the patient — Place oxygen delivery device on patient — Consider indirect administration (blow-by oxygen) for pediatric patients
To Discontinue Use	<ul style="list-style-type: none"> — Remove oxygen delivery device from patient — Shut off the regulator — Relieve the pressure within the regulator — Ensure tank is secure

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-13 PULSE OXIMETRY

PERFORMANCE	PROCEDURES
Attach Pulse Oximeter Probe	___ Place sensor on ear lobe, finger or toe directly over nail bed
Activate Pulse Oximeter	___ Turn on and record oxygen saturation level
Apply Oxygen Device to Patient	___ (See TTG-12)
Use of Pulse Oximeter Readings	___ Compare readings with vital signs and other signs and symptoms

NOTE:

- Pulse oximetry may not be useful when extremity perfusion is diminished from trauma, cold ambient temperature, vasopressors, edema, or anemia.
- Pulse oximetry may provide an early indication of respiratory deterioration and development of hypoxia and should be used throughout stabilization.
- Pulse oximeters do not reflect the effectiveness of ventilation when the goal is carbon dioxide elimination.
- Pulse oximeters may report 100% O₂ on a patient with carbon monoxide poisoning.
- Be sure to treat the patient based on the signs and symptoms.

EMT BASIC TEACHING AND TESTING GUIDELINES

TTG-14 ASSISTED VENTILATION

PERFORMANCE	PROCEDURES / ACTIVITIES
Select Correct Mask	<ul style="list-style-type: none"> ___ Select proper size mask ___ Inflate mask collar if necessary
Assemble Bag Valve Mask (BVM)	<ul style="list-style-type: none"> ___ Assemble BVM, if required
Attach BVM to Oxygen	<ul style="list-style-type: none"> ___ Turn O₂ to 15 LPM ___ Flush line ___ Attach O₂ line to bag
Immobilize Head and Neck	<ul style="list-style-type: none"> ___ If trauma is suspected, manually immobilize head and neck
Open airway	<ul style="list-style-type: none"> ___ Open airway using appropriate method
Insert Airway Adjunct if Needed	<ul style="list-style-type: none"> ___ Insert oropharyngeal or nasopharyngeal airway (See TTG-15)
Apply Mask Properly	<p>Using two hands:</p> <ul style="list-style-type: none"> ___ Rescuer should position self at top of patient's head ___ Place apex of mask over bridge of nose ___ Place base between lower lip and chin ___ Hold mask firmly in position ___ Place thumbs over the upper portion of the mask, and index and middle fingers over lower portion of the mask <p>Using one hand:</p> <ul style="list-style-type: none"> ___ Rescuer should position self at top of patient's head ___ Use ring and little fingers to bring the jaw upward, toward the mask without tilting the head or neck ___ Place thumb over upper portion of mask and index finger over lower portion ___ Use remaining three fingers to bring the jaw up toward mask without tilting the head or neck
Initiate Ventilations	<p>Mouth to Mask:</p> <ul style="list-style-type: none"> ___ Blow into mouthpiece until chest rises <p>2 person bag valve mask:</p> <ul style="list-style-type: none"> ___ Second EMT squeezes bag with two hands until chest rises <p>Flow restricted O₂ power:</p> <ul style="list-style-type: none"> ___ Push trigger until chest rises (Adult use only) <p>1 person bag valve mask:</p> <ul style="list-style-type: none"> ___ Squeeze bag with other hand until chest rises
Ventilate at Correct Rate	<ul style="list-style-type: none"> ___ Adult rate is once every 5 seconds ___ Infant or child rate is once every 3 seconds
Ensure Adequate Ventilation	<ul style="list-style-type: none"> ___ Check for rise and fall of chest. <ul style="list-style-type: none"> • If chest does not rise: <ul style="list-style-type: none"> ___ Reposition head ___ Check for obstruction and remove • If air is escaping: <ul style="list-style-type: none"> ___ Reposition fingers and mask

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-15 AIRWAY ADJUNCTS

Oropharyngeal and Nasopharyngeal Airways

PERFORMANCE	PROCEDURES
Select Proper Airway Adjunct	Oropharyngeal if there is no gag reflex present or Nasopharyngeal if gag reflex is present
OROPHARYNGEAL	
Select Proper Size	— Measure oropharyngeal airway from the corner of patient's mouth to the tip of earlobe on same side of the patient's face
Open patient's mouth	— Open airway appropriately
Insert Airway (Use one of two methods)	— Position airway so tip is pointing toward roof of patient's mouth — Insert airway until resistance is encountered — Rotate airway 180 degrees so flange rests on patient's teeth or lips OR — Depress tongue down and forward with a tongue blade — Insert airway right side up (This is the preferred method for pediatric patients)
Remove Airway Adjunct	— Remove immediately if patient starts to gag <ul style="list-style-type: none"> • Extract using a downward and outward motion from mouth
NASOPHARYNGEAL	
Check for Contraindications (Consult medical control if encountered)	Do not use if: — Evidence of clear fluid issuing from ear or nose — Severe facial trauma
Select Proper Size	— Measure nasopharyngeal airway from the tip of the patient's nose to the tip of earlobe on same side of the patient's face — The diameter of the airway should be about the same as the diameter of the patient's little finger
Lubricate the Airway	— Lubricate the outside of the airway with water-based lubricant before insertion
Insert Airway	— Insert airway so bevel is facing toward the base of the nostril or septum — Insert airway posteriorly, avoiding an upward angle — Advance airway until flange rests against patient's nostril — Do not force, if airway cannot be inserted, try the other nostril

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-16 SUCTIONING

PERFORMANCE	PROCEDURES
Turn the Suction Unit on	— Ensure suction unit is on and functioning properly
Select a catheter for patient	— Use rigid catheter to suction an unresponsive adult patient — Use a large bore flexible suction catheter to suction an infant or child to prevent damage to the child's airway — Use a French catheter and select a low to medium setting on suction unit to suction nasal passages
Attach Catheter to Suction Unit	— Attach catheter to suction unit
Evaluate Airway	— Ensure that patient has open airway — If necessary, log roll patient and attempt to clear airway manually
Oxygenate and Ventilate Patient	— Oxygenate and ventilate patient
Insert Catheter	— Insert catheter into the oral cavity without suction — Do not insert further than base of tongue
Apply Suction	— Apply suction and move the catheter tip from side to side <ul style="list-style-type: none"> • Adults - no more than 15 seconds at a time • Children - no more than 10 seconds at a time • Infants - no more than 5 seconds at a time — If unable to complete suction in 15 seconds due to secretions or emesis, log roll patient and attempt to clear oropharynx
Oxygenate and Ventilate Patient	— Oxygenate and ventilate patient
Repeat as Necessary	— Repeat suction process as necessary

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-17 TREATING FOR SHOCK

PERFORMANCE	PROCEDURES
Assess for Shock	<p>— Assess Mental Status</p> <ul style="list-style-type: none"> • Restlessness • Anxious • Altered mental status <p>— Assess Peripheral Perfusion</p> <ul style="list-style-type: none"> • Weak, thready or absent peripheral pulses • Pale, cool, clammy skin • Assess capillary refill for children < 6 years old (>2 seconds) <p>— Assess Vital Signs</p> <ul style="list-style-type: none"> • Pulse (Increased rate, weak and thready)--early sign • Breathing (Increased rate, shallow, labored, irregular) • Decreased blood pressure-- late sign <p>— Assess Other Signs/Symptoms</p> <ul style="list-style-type: none"> • Dilated pupils • Marked thirst • Nausea and vomiting • Pallor with cyanosis to the lips
Apply Oxygen	— Perform TTG-12
Control Bleeding	— Perform TTG-33-40 as necessary
Splint if Necessary	— Perform TTG-42-48 as necessary
Prevent Loss of Body Heat	— Cover the patient with a blanket
Consider Immobilization	— Consider immobilizing patient on a long backboard prior to elevating lower extremities Perform TTG-49-50 if needed
Elevate Lower Extremities	— Elevate legs approximately 8 to 12 inches. If the patient has serious injuries to the pelvis, lower extremities, head, chest, abdomen, neck, or spine, keep the patient supine.
Consider MAST/PASG	— Consider MAST/PASG (See TTG-41) When signs of shock are present, lower abdomen is tender, pelvic injury is suspected, but there is no evidence of chest injury
Reconsider Patient Priority	— Transport as soon as possible with high priority
Reassess	— Reassess patient's LOC, respiratory status, and response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-18 USE OF AUTOMATED EXTERNAL DEFIBRILLATOR

PERFORMANCE	PROCEDURES
Verify Breathlessness and Pulselessness	<ul style="list-style-type: none"> — Stop bystander CPR if already initiated — Quickly verify breathlessness and pulselessness
Perform CPR	<ul style="list-style-type: none"> — Perform CPR for 5 cycles if cardiac arrest is not witnessed by EMS personnel or bystanders have not completed cycles
Attach AED to Patient	<ul style="list-style-type: none"> — Ensure scene is safe for use of AED — Properly attach device to patient — Turn on AED power — Begin narrative if machine has voice recorder
Analyze Rhythm	<ul style="list-style-type: none"> — Stop CPR — Clear patient — Initiate analysis of rhythm
Shock Advised	<ul style="list-style-type: none"> — When shock advised, clear patient, deliver first shock — Resume CPR for 5 cycles — Clear patient, re-analyze rhythm — When shock advised, clear patient, deliver second shock — Resume CPR for 5 cycles — Continue CPR and Shock sequence until no shock advised or arrival at hospital
No Shock Advised	<ul style="list-style-type: none"> — When no shock advised quickly check for pulse
Pulse is NOT Present	<ul style="list-style-type: none"> — Resume CPR and shock sequence
Pulse is Present	<ul style="list-style-type: none"> — Check breathing: — Breathing adequately, provide oxygen (see TTG-12) — Not breathing adequately, assist ventilation (see TTG-14)

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-19 GLUCOMETER

PERFORMANCE	PROCEDURES
Determine Need for Blood Sugar Reading	___ Patient exhibits signs and symptoms of decreasing level of consciousness <ul style="list-style-type: none"> • Anxiety • Irritability • Increasing “sleepiness” • Unconsciousness • History of diabetic problems
Prepare to Use Glucometer	___ Ensure Glucometer is “on” ___ Follow the manufacture’s recommendation on calibration to ensure accurate reading ___ Assemble needed supplies: <ul style="list-style-type: none"> • Lancet • Test Strips • Alcohol Prep Pads • Cotton Ball / Gauze pad • Band-Aid
Obtain Blood Sugar Reading	___ Follow manufacture’s recommendations for use of lancet, obtaining blood sample, use of reagent strips, etc (The normal blood sugar level is between 80-120 mg/dl)
Bandage Injected Site	___ Apply Band-Aid or pressure dressing to stop bleeding
Dispose	___ Dispose of lancet in biohazard sharps container

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-20 ADMINISTRATION OF NITROGLYCERIN

PERFORMANCE	PROCEDURES
Nitroglycerin	
Determine Need for Nitroglycerin	<ul style="list-style-type: none"> ___ Determine if patient has cardiac history and is prescribed nitroglycerin ___ Determine if patient exhibits signs and symptoms of cardiac emergency <ul style="list-style-type: none"> • Sudden onset of sweating • Squeezing, pressure, or pain in chest radiating to jaw, neck, shoulders or arms • Anxiety, irritability, appears to be in shock
Check for Contraindications	<ul style="list-style-type: none"> ___ Check for any contraindications <ul style="list-style-type: none"> • Signs of increased intracranial pressure • Hypotension • Hypovolemia • Viagra or similar drugs
Inquire About Previous Doses	Inquire about: <ul style="list-style-type: none"> ___ Total doses taken/administered ___ When last dose taken/administered ___ Effects of previous dose ___ Any other interventions
Inquire About Medication	<ul style="list-style-type: none"> ___ Obtain nitroglycerin Ensure the “six rights” of medication administration: <ul style="list-style-type: none"> ___ “Right” patient ___ “Right” medication ___ “Right” dose ___ “Right” route ___ “Right” time ___ “Right” documentation ___ Check expiration date ___ Check if medication is discolored or flaky
Assure Blood Pressure is Appropriate	<ul style="list-style-type: none"> ___ Take blood pressure (TTG-7) – Systolic must be above 100 mm Hg
Obtain Medical Direction	<ul style="list-style-type: none"> ___ Obtain order from medical direction, on-line or off-line, to administer nitroglycerin per protocol
Administer Nitroglycerin	Administer according to patient prescription: <ul style="list-style-type: none"> ___ Ask patient to lift tongue ___ Have patient or EMT place tablet or spray dose under tongue ___ Have patient keep mouth closed until dissolved ___ Tell patient not to chew or swallow ___ Administer one spray or tablet every five minutes if pain is not relieved, systolic blood pressure remains above 100 mm Hg and you are authorized by medical control up to a maximum of three doses
Reassess	<ul style="list-style-type: none"> ___ Reassess patients blood pressure within 2 minutes ___ Reassess patients response to medication

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-21 ADMINISTRATION OF ASPIRIN

PERFORMANCE	PROCEDURES
ASPIRIN	
Determine Need for Aspirin	<input type="checkbox"/> Patient has chest pain
Check for Contraindications	<input type="checkbox"/> Check for any contraindications <ul style="list-style-type: none"> • Pregnancy • Bleeding disorders • Peptic ulcers • Use of anticoagulants • Hypersensitivity or allergy to aspirin
Inquire About Previous Doses	Inquire about: <ul style="list-style-type: none"> <input type="checkbox"/> Total doses taken/administered <input type="checkbox"/> When last dose taken/administered <input type="checkbox"/> Effects of previous dose <input type="checkbox"/> Any other interventions
Inquire About Medication	<input type="checkbox"/> Obtain aspirin Ensure the “six rights” of medication administration: <ul style="list-style-type: none"> <input type="checkbox"/> “Right” patient <input type="checkbox"/> “Right” medication <input type="checkbox"/> “Right” dose <input type="checkbox"/> “Right” route <input type="checkbox"/> “Right” time <input type="checkbox"/> “Right” documentation <input type="checkbox"/> Check expiration date <input type="checkbox"/> Check if medication is discolored
Obtain Medical Direction	<input type="checkbox"/> Obtain order from medical direction, on-line or off-line, to administer aspirin per protocol
Administer Aspirin	<input type="checkbox"/> Have patient chew, <i>not</i> swallow, four 81mg tablets (children’s aspirin)
Reassess	<input type="checkbox"/> Reassess patients response to medication

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-22 ADMINISTRATION OF PRESCRIBED INHALER

PERFORMANCE	PROCEDURES
PRESCRIBED INHALER	
Determine Need for Inhaler	<ul style="list-style-type: none"> ___ Patient has history of respiratory emergency and is prescribed an inhaler ___ Patient exhibits signs and symptoms of respiratory emergency <ul style="list-style-type: none"> • Shortness of breath • Restlessness • Use of accessory muscles for breathing • Nasal flaring • Tripod position ___ Patient capable of following directions
Inquire About Previous Doses	Inquire about: <ul style="list-style-type: none"> ___ Total doses taken/administered ___ When last dose taken/administered ___ Effects of previous dose ___ Any other interventions
Inquire About Medication	<ul style="list-style-type: none"> ___ Obtain inhaler Ensure the “six rights” of medication administration: <ul style="list-style-type: none"> ___ “Right” patient ___ “Right” medication ___ “Right” dose ___ “Right” route ___ “Right” time ___ “Right” documentation ___ Check expiration date
Prepare to Administer	<ul style="list-style-type: none"> ___ Detach connection of inhaler to container to check for foreign objects ___ Ensure the inhaler is at room temperature or warmer (warm by rubbing if needed) ___ Reattach connection of inhaler to container ___ Shake the inhaler vigorously several times ___ If patient has spacer device, attach to inhaler
Obtain Medical Direction	<ul style="list-style-type: none"> ___ Obtain order from medical direction, on-line or off-line to administer inhaler per protocol
Administer Inhaler	<ul style="list-style-type: none"> ___ Remove oxygen from patient ___ Have patient exhale deeply ___ Have patient place lips around opening of inhaler ___ Have patient depress the hand held inhaler while simultaneously inhaling deeply ___ Instruct patient to hold breath for as long as possible ___ Replace oxygen on patient ___ Repeat per medical direction
Reassess	<ul style="list-style-type: none"> ___ Reassess respiratory status and patient ‘s response.

EMT BASIC TEACHING AND TESTING GUIDELINES
**TTG-23 ADMINISTRATION OF EPINEPHRINE BY AUTO-INJECTOR
 (EPI-PEN)**

PERFORMANCE	PROCEDURES
EPINEPHRINE AUTO-INJECTOR	
Determine Need for Epinephrine	<input type="checkbox"/> Patient has an allergy history <input type="checkbox"/> Patient exhibits signs and symptoms of severe allergic reaction
Inquire About Previous Doses	Inquire about: <input type="checkbox"/> Total doses taken/administered <input type="checkbox"/> When last dose taken/administered <input type="checkbox"/> Effects of previous dose <input type="checkbox"/> Any other interventions
Inquire About Medication	<input type="checkbox"/> Obtain auto injector Ensure the “six rights” of medication administration: <input type="checkbox"/> “Right” patient <input type="checkbox"/> “Right” medication <input type="checkbox"/> “Right” dose (Adult: 0.30 mg, Infant and Child: 0.15 mg) <input type="checkbox"/> “Right” route <input type="checkbox"/> “Right” time <input type="checkbox"/> “Right” documentation <input type="checkbox"/> Check expiration date <input type="checkbox"/> Check if medication is discolored
Obtain Medical Direction	<input type="checkbox"/> Obtain order from medical direction on-line or off-line to administer Epinephrine Auto-Injector per protocol.
Prepare to Administer	<input type="checkbox"/> Inform patient that injection will be painful <input type="checkbox"/> Support patient’s knee with other hand to prevent movement
Administer Epinephrine Auto-Injector	<input type="checkbox"/> Remove safety cap from the auto-injector <input type="checkbox"/> Place black tip of auto-injector against patient’s thigh (laterally, midway between the knee and the hip) <input type="checkbox"/> Push injector firmly against the thigh until the injector activates <input type="checkbox"/> Hold injector in place for 10 seconds
Dispose of Used Auto-Injector in Sharps Container	<input type="checkbox"/> Dispose of used auto-injector in biohazard sharps container
Reassess	<input type="checkbox"/> Reassess respiratory status and patient’s response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-24 ADMINISTRATION OF ORAL GLUCOSE

PERFORMANCE	PROCEDURES
ORAL GLUCOSE	
Determine Need for Oral Glucose	<ul style="list-style-type: none"> ___ Patient exhibits altered mental status has history of diabetic problems ___ Consider use of glucometer (TTG-19)
Inquire About Medication	<ul style="list-style-type: none"> ___ Obtain oral glucose Ensure the “six rights” of medication administration: ___ “Right” patient ___ “Right” medication ___ “Right” dose ___ “Right” route ___ “Right” time ___ “Right” documentation ___ Check expiration date
Obtain Medical Direction	<ul style="list-style-type: none"> ___ Obtain order from medical direction on-line or off-line to administer oral glucose per protocol
Administer Oral Glucose	<ul style="list-style-type: none"> ___ Ensure that patient is conscious, can swallow and protect own airway ___ Place glucose on tongue depressor between cheek and gum or squirt from tube between patient’s cheek and gum ___ Slowly administer small amounts over 2-3 minutes
Reassess	<ul style="list-style-type: none"> ___ Reassess level of consciousness, respiratory status and patient response ___ Consider use of glucometer

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-25 ADMINISTRATION OF ACTIVATED CHARCOAL

PERFORMANCE	PROCEDURES
ACTIVATED CHARCOAL	
Determine need for Activated Charcoal	<ul style="list-style-type: none"> ___ Patient exhibits signs and symptoms of ingested poison or drug overdose <ul style="list-style-type: none"> • Chemical burns around the mouth • Unusual breath odors • Altered mental status • Presence of pills, tablets, fragments, bottles, etc
Additional Questions to Ask	Inquire about: <ul style="list-style-type: none"> ___ What substance was ingested ___ How much was ingested ___ When was the substance ingested ___ Over what time period ___ Weight of the patient ___ Previous interventions attempted
Check for Contraindications	<ul style="list-style-type: none"> ___ Check for any contraindications <ul style="list-style-type: none"> • Ingestion of acids or alkalis • Unable to swallow • Iron tablets • Lithium • Cyanide • Altered mental status • Contact Poison Control Center for any ingested item of concern
Inquire About Medication	<ul style="list-style-type: none"> ___ Obtain activated charcoal Ensure the “six rights” of medication administration: <ul style="list-style-type: none"> ___ “Right” patient ___ “Right” medication ___ “Right” dose (One gram per kilogram of body weight) ___ “Right” route ___ “Right” time ___ “Right” documentation ___ Check expiration date
Prepare to Administer	<ul style="list-style-type: none"> ___ Ensure patient can swallow ___ Remove pills, tablets or fragments with gloves from patient's mouth as needed
Obtain Medical Direction	<ul style="list-style-type: none"> ___ Obtain order from medical direction either on-line or off-line to administer activated charcoal
Administer Activated Charcoal	<ul style="list-style-type: none"> ___ Shake the container thoroughly prior to having patient drink it ___ Have patient drink activated charcoal
Reassess	<ul style="list-style-type: none"> ___ Reassess level of consciousness, respiratory status and patient response
Gather Containers	<ul style="list-style-type: none"> ___ Take all containers, bottles, and labels of the possible poison agent to the receiving facility
Prepare for Transport	<ul style="list-style-type: none"> ___ Transport patient in left lateral recumbent position ___ Position basin and towel in case patient vomits

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-26 TREATMENT OF CONTACT POISONS

PERFORMANCE	PROCEDURES
Assess for Poisoning	<input type="checkbox"/> Patient exhibits signs and symptoms of absorbed poisoning or exposure: <ul style="list-style-type: none"> • Liquid or powder on patient's skin • Burns • Itching • Irritation • Redness
Ask Additional Questions	Inquire about: <ul style="list-style-type: none"> <input type="checkbox"/> What substance was involved? <input type="checkbox"/> How much was involved? <input type="checkbox"/> When was patient exposed? <input type="checkbox"/> Over what time period? <input type="checkbox"/> Weight of the patient? <input type="checkbox"/> Previous interventions attempted?
Obtain Medical Direction	<input type="checkbox"/> Obtain order from medical direction
Evaluate HazMat Resources	<input type="checkbox"/> Consider HazMat resources on scene <input type="checkbox"/> Consider need for HazMat team
Contaminated Skin	
Treatment for contaminated skin	<input type="checkbox"/> Remove contaminated clothing by cutting off <input type="checkbox"/> Brush powder off patient, respiratory protection is needed for EMT and patient <input type="checkbox"/> Irrigate with clean water for at least 20 minutes
Contaminated Eyes	
Treatment for contaminated eyes	<input type="checkbox"/> Irrigate with clean water directing stream away from unaffected eye for at least 20 minutes and continue en-route to facility if possible
Gather Containers	<input type="checkbox"/> Take all containers, bottles, and labels to the receiving facility
Reassess	<input type="checkbox"/> Reassess level of consciousness, respiratory status and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-27 HYPERTHERMIA (HEAT)

PERFORMANCE	PROCEDURES
Assess for Hyperthermia	___ Patient exhibits signs and symptoms of hyperthermia: <ul style="list-style-type: none"> • Redness • Muscular cramps • Weakness or exhaustion • Rapid heart rate • Dizziness or faintness • Altered mental status to unresponsive
Previous Interventions	___ Inquire about previous interventions attempted
MILD HYPERTHERMIA	
Assess for Mild Hyperthermia (Heat Exhaustion)	___ Check skin for: <ul style="list-style-type: none"> • Normal to cool temperature • Pale • Moist
Treatment for Mild Hyperthermia	___ Remove patient from hot environment and place in a cool environment (air conditioned ambulance) ___ Loosen or remove clothing ___ Cool patient by fanning ___ Put in supine position with legs elevated ___ Offer drinking water if patient is responsive and not nauseated ___ If the patient is unresponsive or is vomiting, transport to the hospital
SEVERE HYPERTHERMIA	
Assess for Severe Hyperthermia (Heat Stroke)	___ Check skin for: <ul style="list-style-type: none"> • Hot temperature • Red • Dry or moist
Treatment for Severe Hyperthermia	___ Place patient in a cool environment ___ Remove clothing ___ Wet patient skin by applying water from sponge or wet towels and fan ___ Put in supine position with legs elevated ___ Offer drinking water if patient is responsive and not nauseated ___ Apply cool packs to neck, groin and armpits ___ Transport immediately
Reassess	___ Reassess level of consciousness, respiratory status and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-28 HYPOTHERMIA (COLD)

PERFORMANCE	PROCEDURES
Assess for Hypothermia	<ul style="list-style-type: none"> ___ Patient exhibits signs and symptoms of hyperthermia: <ul style="list-style-type: none"> • Cool or cold general temperature (assessed by placing gloved hand on abdominal skin which is found to be cool or cold) • Consider thermometer to assess core temperature ___ Low to absent blood pressure ___ Complaints of joint/muscle stiffness ___ Slowly responding pupils
Differentiate Between Early or Late Hypothermia	<ul style="list-style-type: none"> ___ Decreasing mental status or motor function - correlates with the degree of hypothermia: <ul style="list-style-type: none"> • Poor coordination • Memory disturbances • Poor judgment • Dizziness • Reduced or loss of touch sensation • Mood changes • Speech difficulty • Muscular rigidity • Shivering may be present or absent ___ Breathing variations <ul style="list-style-type: none"> • Early - rapid breathing • Late - shallow, slow or even absent breathing ___ Pulse: <ul style="list-style-type: none"> • Early - rapid • Late - slow and barely palpable and/or irregular, or completely absent ___ Skin: <ul style="list-style-type: none"> • Early - Red • Late - Pale, cyanotic to blue-gray, stiff or hard
Previous Interventions	Inquire about: <ul style="list-style-type: none"> ___ Previous interventions attempted

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-28 HYPOTHERMIA (COLD) (Continued)

PERFORMANCE	PROCEDURES
Treat hypothermia	<ul style="list-style-type: none"> — Remove the patient from the environment and protect from further heat loss — Remove all wet clothing and cover with blanket — Handle the patient gently--avoid rough handling — Do not allow the patient to walk or exert himself — If patient is alert and responding appropriately, actively re-warm <ul style="list-style-type: none"> • Warm blankets • Heat packs or hot water bottles to neck, groin and armpits • Turn the heat up high in the patient compartment of the ambulance — If the patient is unresponsive or not responding appropriately, re-warm passively <ul style="list-style-type: none"> • Warm blankets • Turn heat up high in patient compartment of ambulance — Do not allow the patient to eat or drink stimulants — Do not massage extremities
Reassess	<ul style="list-style-type: none"> — Reassess level of consciousness, respiratory status and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-29 FROSTBITE AND COLD INJURIES

PERFORMANCE	PROCEDURES
Assess for Frostbite and Cold Injuries	<ul style="list-style-type: none"> ___ Patient exhibits signs and symptoms of frostbite or cold injuries <ul style="list-style-type: none"> • Local injury with clear demarcation
EARLY OR SUPERFICIAL FROSTBITE	
Assess for Early or Superficial Frostbite	<ul style="list-style-type: none"> ___ Blanching of the skin - palpation of the skin in which normal color does not return. ___ Loss of feeling and sensation in the injured area. ___ Skin remains soft. ___ If re-warmed, patient will feel a tingling sensation
Treat Early or Superficial Injury	<ul style="list-style-type: none"> ___ Remove the patient from the environment ___ Protect the cold injured extremity from further injury ___ Remove wet or restrictive clothing ___ Splint extremity ___ Cover the extremity ___ Do not rub or massage ___ Do not re-expose to the cold
LATE OR DEEP COLD INJURY	
Assess for Late or Deep Cold Injury	<ul style="list-style-type: none"> ___ White, waxy skin ___ Firm to frozen feeling upon palpation ___ If thawed or partially thawed, the skin may appear flushed with areas of purple and blanching or mottled and cyanotic ___ Swelling may be present ___ Blisters may be present
Treat Late or Deep Cold Injury	<ul style="list-style-type: none"> ___ Remove the patient from the environment ___ Protect the cold injured extremity from further injury ___ Remove wet or restrictive clothing ___ Remove jewelry ___ Cover with dry clothing or dressings ___ Do not: <ul style="list-style-type: none"> • Break blisters, • Rub or massage area • Apply heat • Re-warm • Allow the patient to walk on the affected extremity
Reassess	<ul style="list-style-type: none"> ___ Reassess level of consciousness, respiratory status and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-30 CHILDBIRTH-NORMAL DELIVERY

PERFORMANCE	PROCEDURES
Establish Need for Delivery On Scene	<ul style="list-style-type: none"> ___ What number child is this for the mother ___ Is baby crowning ___ Does she have urge to push or feel need to have a bowel movement
Prepare for Delivery	<ul style="list-style-type: none"> ___ Consider all BSI for delivery: <ul style="list-style-type: none"> • Sterile gloves (from OB kit) • Eye protection • Mask • Gown ___ Have mother lie down with knees drawn up and spread apart ___ Elevate buttocks with blanket or pillows ___ Create sterile field around vaginal opening with sterile towels or paper barriers
Communicate with Mother During Labor	<ul style="list-style-type: none"> ___ Instruct mother to push with contractions when head is in sight and to rest between contractions ___ Tell mother not to push hard
Determine if Abnormal Delivery	<ul style="list-style-type: none"> ___ If infant's head is not the part presenting, this is not a normal delivery (see TTG-31)
Assist Mother with Delivery	<ul style="list-style-type: none"> ___ When infant's head appears place fingers on bony part of skull and exert gentle counter pressure ___ Avoid fontanelle and face ___ If the amniotic sac does not break, or has not broken, use a clamp to puncture the sac and push it away from infant's head and mouth as they appear ___ Check neck for umbilical cord <ul style="list-style-type: none"> • If it is around the neck slip it over the head or shoulder or clamp, cut and unwrap the cord ___ Support the head after it is delivered ___ Suction the baby's mouth and nose two or three times <ul style="list-style-type: none"> • Ensure that mouth is suctioned before the nose • Compress syringe before placing in mouth or nose • Avoid contact with the back of the mouth ___ Gently guide baby downward to assist in delivery of baby's shoulders ___ Support the infant with both hands as the full body is delivered ___ Keep baby at level of vagina until cord is cut ___ Clamp, tie and cut umbilical cord <ul style="list-style-type: none"> • Place clamps halfway between baby and mother • Space clamps four finger widths apart • Cut between the clamps with sterile scissors
Note Delivery Time	<ul style="list-style-type: none"> ___ Note and record delivery time

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-30 CHILDBIRTH-NORMAL DELIVERY (Continued)

Provide Infant Care	<ul style="list-style-type: none"> ___ Wipe blood and mucus from mouth and nose with sterile gauze ___ Suction mouth and nose again (Mouth must be done first) ___ Stimulate infant if not breathing by gently flicking soles of feet or rubbing back in a circular motion with three fingers ___ Dry infant ___ Wrap in a warm blanket ___ Cover head to maintain body temperature ___ Place on side, head slightly lower than trunk ___ Calculate APGAR score at one minute ___ Calculate APGAR score at five minutes
Assist Mother with Placenta Delivery	<ul style="list-style-type: none"> ___ Wrap placenta in towel and put in plastic bag ___ Carefully massage uterus to control bleeding ___ Allow baby to nurse to help control bleeding ___ Do not delay transport to hospital for delivery of placenta ___ Place sterile pad over vaginal opening ___ Lower mother's legs ___ Help her hold them together ___ Transport mother, infant, and placenta to hospital
Reassess	<ul style="list-style-type: none"> ___ Reassess level of consciousness, respiratory status, and patient response of mother and child

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-31 CHILDBIRTH-ABNORMAL DELIVERY

PERFORMANCE	PROCEDURES
Prolapsed Cord (Cord presents through birth canal before delivery of head)	<ul style="list-style-type: none"> — Instruct mother to not push — Apply oxygen to patient — Position mother with head down in “knees to chest” position using gravity to lessen pressure in birth canal — Insert sterile, gloved hand into vagina pushing the presenting part of the fetus away from the cord — Rapidly transport, keeping pressure on presenting part and monitor pulsations in the cord
Breech Birth (Buttocks or legs present first)	<ul style="list-style-type: none"> — Apply oxygen to patient — Place mother in prone position with pelvis elevated — Immediate rapid transportation upon recognition
Limb Birth (Limb(s) present first)	<ul style="list-style-type: none"> — Apply oxygen to patient — Place mother in prone position with pelvis elevated — Immediate rapid transportation upon recognition
Multiple Births	<ul style="list-style-type: none"> — Call for assistance — Deliver babies as described in the protocol for normal childbirth — Reevaluate for abnormal delivery for each infant — Be prepared for more than one resuscitation — Provide Infant care for each baby as outlined in TTG-30
Meconium Present in Amniotic Fluid (Fluid that is greenish or brownish-yellow rather than clear is an indicator of possible fetal distress during labor)	<ul style="list-style-type: none"> — Do not stimulate infant before suctioning oropharynx — Suction — Maintain airway and assess respirations — Transport as soon as possible
Reassess	<ul style="list-style-type: none"> — Reassess level of consciousness, respiratory status and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-32 BURNS

PERFORMANCE	PROCEDURES
Determine Burn Type	Determine type: <ul style="list-style-type: none"> • Thermal • Chemical • Electrical
Determine Body Surface Area	___ Determine Body Surface Area (BSA) using rule of nines
Determine Burn Classification	<p>Superficial (involves epidermis only):</p> <ul style="list-style-type: none"> ___ Reddened skin ___ Pain at site <p>Partial Thickness (involves epidermis and dermis, but not underlying tissue):</p> <ul style="list-style-type: none"> ___ Intense pain ___ White to red skin that is moist and mottled ___ Blisters <p>Full Thickness (All dermal layers, may involve muscle, bone or organs)</p> <ul style="list-style-type: none"> ___ Skin is dry and leathery and may appear white, dark brown or charred ___ Loss of sensation - little or no pain ___ Hard to the touch ___ Pain at periphery
Determine Burn Severity	<p>Minor Burns:</p> <ul style="list-style-type: none"> ___ Full thickness burns of less than 2% of the body surface ___ Partial thickness burns of less than 15% of the body surface <p>Moderate Burns:</p> <ul style="list-style-type: none"> ___ Full thickness burns of 2% to 10% of the body surface, excluding hands, feet, face, genitalia and upper airway ___ Partial thickness burns of 15% to 30% of the body surface area. ___ Superficial burns of greater than 50% body surface area <p>Critical Burns:</p> <ul style="list-style-type: none"> ___ Full thickness burns involving the hands, feet, face, or genitalia. ___ Burns associated with respiratory injury ___ Full thickness burns covering > 10% of the body surface ___ Partial thickness burns covering > 30% of the body surface ___ Burns complicated by painful, swollen or deformed extremity ___ Moderate burns in young children or elderly patients ___ Circumferential burns of arm, leg, abdomen, or chest

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-32 BURNS (Continued)

Burn Care (All Types)	<ul style="list-style-type: none"> ___ Remove patient from source of burn and prevent further contamination ___ Consider the type of burn and stopping the burning process initially with water or saline if appropriate ___ Cut off smoldering clothing ___ Remove jewelry ___ Continually monitor the airway for evidence of closure ___ Cover the burned area with a dry sterile dressing ___ Do not use any type of ointment, lotion or antiseptic ___ Do not break blisters ___ Ensure patient does not get hypothermic
Care for Chemical Burns	<ul style="list-style-type: none"> ___ Protect yourself from exposure to hazardous materials ___ Wear gloves, eye protection, and respiratory protection ___ Brush off dry powders ___ Consider to flushing with large amounts of water ___ Continue flushing the contaminated area while en route to the receiving facility ___ Use caution not to contaminate uninjured areas when flushing
Care for Electrical Burns	<ul style="list-style-type: none"> ___ Ensure safety before removing patient from the electrical source ___ If the patient is still in contact with the electrical source or you are unsure, do not approach or touch the patient, contact power company ___ Monitor the patient closely for respiratory and cardiac arrest ___ Treat the soft tissue injuries associated with the burn ___ Look for both an entrance and exit wound
Reassess	<ul style="list-style-type: none"> ___ Reassess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-33 BANDAGING – SPIRAL

Commonly used on Arm or Leg Injuries

PERFORMANCE	PROCEDURES
Expose Wound	— Expose entire wound
Control Bleeding	— Handle dressings in an aseptic manner — Place dressing over wound. If sterile dressing is not available use gloved hand or other available material — Ensure dressing extends 1 inch beyond edges of wound — Apply direct pressure as needed to stop the bleeding
Assess PMS	— Assess PMS distal to the injury: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function
Select Appropriate Bandage	— Select appropriate bandaging material
Apply Bandage	— Keep patient calm and quiet. — Explain to the patient what you are doing — Apply bandage firmly and securely but not tight enough to restrict blood supply — Make several anchoring wraps, overlapping each wrap to secure in place — Continue overlapping wrap circumferentially
Secure Bandage	— Ensure bandage holds dressing securely and controls bleeding — Securely tie or fasten bandage in place so it will not move — Tuck or tape loose ends
Reassess	— Reassess PMS distal to the injury — Reassess wound to ensure bleeding control — Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-34 BANDAGING – FIGURE EIGHT

Commonly used on Elbow, Knee, Neck, Shoulder, and Hip

PERFORMANCE	PROCEDURES
Expose Wound	— Expose entire wound
Control Bleeding	— Handle dressings in an aseptic manner — Place dressing over wound. If sterile dressing is not available use gloved hand or other available material — Ensure dressing extends 1 inch beyond edges of wound — Apply direct pressure as needed to stop the bleeding
Assess PMS	— Assess PMS distal to the injury: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function
Select Appropriate Bandage	— Select appropriate bandaging material
Apply Bandage	— Keep patient calm and quiet — Explain to the patient what you are doing — Apply bandage firmly and securely but not tight enough to restrict blood supply Elbow or Knee: — Make several anchoring wraps starting either above or below the wound, overlapping each wrap to secure in place — Place dressing on wound on elbow or knee — Proceed diagonally across the dressing — Circle below the joint and diagonally back across the dressing — Repeat until dressing and area are sufficiently covered Neck, Shoulder or Hip: — Make several anchoring wraps around arm or leg opposite injury site, overlapping to secure bandage — Place dressing on wound on neck, shoulder or hip — Proceed diagonally across the dressing — Circle shoulder and arm or thigh and hip overlapping each time — Repeat until dressing and area are sufficiently covered
Secure Bandage	— Ensure bandage holds dressing securely and controls bleeding — Securely tie or fasten bandage in place so it will not move — Tuck or tape loose ends — Keep patient calm and quiet
Reassess	— Reassess PMS distal to injury — Reassess wound to ensure bleeding control — Ensure bandage allows the joint to move without becoming loose — Ensure back of the figure eight is open — Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-35 BANDAGING – HEAD

Commonly used on Ear, Eye, and side of the Head

PERFORMANCE	PROCEDURES
Expose Wound	— Expose entire wound
Control Bleeding	— Handle dressings in an aseptic manner — Place dressing over wound. If sterile dressing is not available use gloved hand or other available material — Ensure dressing extends one inch beyond edges of wound — Apply direct pressure as needed to stop the bleeding
Select Appropriate Bandage	— Select appropriate bandaging material
Apply Bandage	— Keep patient calm and quiet — Explain to the patient what you are doing — Place padding behind the ears — Apply bandage firmly and securely enough to control bleeding but not tight enough to restrict blood supply — Secure dressing in place by wrapping with roller bandage around the head — Ensure bandage does not occlude airway
Secure Bandage	— Ensure bandage holds dressing securely and controls bleeding — Securely tie or fasten bandage in place so it will not move — Tuck or tape loose ends
Reassess	— Reassess wound to ensure bleeding control — Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-36 BANDAGING – PROTRUDING EYE

PERFORMANCE	PROCEDURES
Expose Wound	<ul style="list-style-type: none"> — Expose entire wound
Control Bleeding	<ul style="list-style-type: none"> — Handle dressings in an aseptic manner — Place dressing over wound. If sterile dressing is not available use gloved hand or other available material — Ensure dressing extends one inch beyond edges of wound — Apply direct pressure as needed to stop the bleeding
Prepare to Bandage	<ul style="list-style-type: none"> — Cut a hole in the center of 4x4 gauze large enough to allow the gauze to pass over the eyeball — Place the gauze over the eyeball and onto face as padding for the cone
Select Appropriate Bandage	<ul style="list-style-type: none"> — Select appropriate bandaging material.
Apply Bandage	<ul style="list-style-type: none"> — Keep patient calm and quiet — Explain to the patient what you are doing — Place protective cone over the injured eye — Stabilize cone over injured eye with a roller bandage — Place padding behind the ears — Have patient close uninjured eye and cover with eye-pad or gauze — Anchor roller bandage around the head several times — Secure cone by wrapping roller bandage around the cone 180 degrees and then back around the head to the cone, continue wrapping around the cone 180 degrees and back around the head until the cone is stabilized
Secure Bandage	<ul style="list-style-type: none"> — Ensure bandage holds dressing securely and controls bleeding — Securely tie or fasten bandage in place so it will not move — Tuck or tape loose ends
Reassess	<ul style="list-style-type: none"> — Reassess wound to ensure bleeding control — Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-37 BANDAGING – TOP OF HEAD

PERFORMANCE	PROCEDURES
Expose Wound	— Expose entire wound
Control Bleeding	— Handle dressings in an aseptic manner — Place dressing over wound. If sterile dressing is not available use gloved hand or other available material — Ensure dressing extends 1 inch beyond edges of wound — Apply direct pressure as needed to stop the bleeding
Select Appropriate Bandage.	— Select appropriate bandaging material
Apply Bandage	— Keep patient calm and quiet — Explain to the patient what you are doing — Place padding behind ears — Using roller bandage, start at top of head and make loop over each ear hanging to just above shoulder — Bring end back to top center of head making sure that all dressings are covered — Twist and take roller bandage to the back of the head below the occiput — Wrap securely 2-3 times from below occiput to forehead being sure not to cover patient's eyes — Pull loops down securely and tuck into wrapping — Continue wrapping securely from forehead to occiput — Apply bandage firmly and securely but not tight enough to restrict blood supply
Secure Bandage	— Ensure bandage holds dressing securely and controls bleeding — Securely tie or fasten bandage in place so it will not move — Tuck or tape loose ends
Reassess	— Reassess wound to ensure bleeding control — Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-38 BANDAGING – CHEEK OR JAW

PERFORMANCE	PROCEDURES
Expose Wound	— Expose entire wound
Control Bleeding	— Handle dressings in an aseptic manner — Place dressing over wound. If sterile dressing is not available use gloved hand or other available material — Ensure dressing extends one inch beyond edges of wound — Apply direct pressure as needed to stop the bleeding
Select Appropriate Bandage	— Select appropriate bandaging material.
Apply Bandage	— Keep patient calm and quiet — Explain to the patient what you are doing — Place padding behind the ears — Secure dressing in place with bandage or tape — Apply bandage firmly and securely but not tight enough to restrict blood supply — Ensure bandage does not occlude airway
Secure Bandage	— Ensure bandage holds dressing securely and controls bleeding — Securely tie or fasten bandage in place so it will not move — Tuck or tape loose ends
Reassess	— Reassess wound to ensure bleeding control — Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-39 BANDAGING – OPEN CHEST WOUND

PERFORMANCE	PROCEDURES
Expose Wound	<ul style="list-style-type: none"> ___ Expose entire wound
Seal Wound and Control Bleeding	<ul style="list-style-type: none"> ___ Handle dressings in an aseptic manner ___ Place occlusive dressing over wound (If occlusive dressing is not available use gloved hand) ___ Ensure dressing extends two inches beyond edges of wound ___ Apply direct pressure as needed to stop the bleeding
Apply an Occlusive Dressing.	<ul style="list-style-type: none"> ___ Keep patient calm and quiet ___ Explain to the patient what you are doing ___ Ensure dressing is large enough not to be sucked into the wound (two inches beyond edges of wound) ___ Affix dressing with tape ___ Seal on three or four sides ___ Monitor patient closely for increasing difficulty breathing ___ If tension pneumothorax develops, loosen one side of dressing to make a flap allowing air to escape yet not allowing it to enter ___ Administer high concentration oxygen ___ Transport as soon as possible ___ Keep patient positioned on the injured side unless other injuries prohibit
Reassess	<ul style="list-style-type: none"> ___ Reassess wound to ensure bleeding control ___ Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-40 TOURNIQUET

PERFORMANCE	PROCEDURES
Determine Need for Using Tourniquet	<p>If these conditions are met, a tourniquet may be the only alternative:</p> <ul style="list-style-type: none"> ___ Direct pressure has not been successful in stopping bleeding ___ Elevation of wound above heart has not been successful in stopping of bleeding ___ Compression of pressure point has not been successful in stopping of bleeding
Select Appropriate Materials	<ul style="list-style-type: none"> ___ Select a band that will be between 3-4 inches in width and can be wrapped to six or eight layers deep (Consider use of BP cuff)
Apply Band	<ul style="list-style-type: none"> ___ Wrap band around the extremity proximal to the wound (one inch above but not on a joint) ___ Tie one knot in the bandage ___ Place a stick or pencil on top of the knot and tie the ends of the bandage over the stick in a square knot
Apply Pressure with Tourniquet	<ul style="list-style-type: none"> ___ Twist the stick until the bleeding is controlled, secure the stick in position ___ Do not cover the tourniquet ___ Notify other medical personnel caring for the patient ___ Do not remove tourniquet unless directed by Medical Control
Mark Patient Appropriately	<ul style="list-style-type: none"> ___ Mark a piece of tape on the patient's forehead "TQ" and time applied
Reassess	<ul style="list-style-type: none"> ___ Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-41 PNEUMATIC COUNTER-PRESSURE DEVICE

Pneumatic Anti-Shock Garment (PASG) or Military Anti-Shock Trousers (MAST)

PERFORMANCE	PROCEDURES
Determine Need for PASG/MAST	If any of these conditions are present, PASG/MAST may be warranted: <input type="checkbox"/> Patient exhibits signs and symptoms of shock <input type="checkbox"/> Lower abdomen is tender <input type="checkbox"/> Pelvic injury is suspected
Prepare to Apply	<input type="checkbox"/> Unfold device and lay flat <input type="checkbox"/> Remove patient's clothing
Check for Contraindications	<input type="checkbox"/> Patient is pregnant <input type="checkbox"/> Penetrating chest wounds <input type="checkbox"/> Fracture that could be aggravated by use of PASG/MAST
APPLICATION METHODS	
Log Roll Method	<input type="checkbox"/> Place PASG/MAST in position next to patient <input type="checkbox"/> Position rescuers on opposite side of patient from device <input type="checkbox"/> Log roll patient toward rescuers <input type="checkbox"/> Position device under patient with top just below the lowest rib <input type="checkbox"/> Position device so that center of trousers will be in center of victim's back when patient is returned to the supine position <input type="checkbox"/> Return patient to supine position on device
Scoop Stretcher Method	<input type="checkbox"/> Place PASG/MAST in position on the ground next to patient <input type="checkbox"/> Lift patient off the ground using a scoop stretcher <input type="checkbox"/> Place the patient back on the ground centered over PASG/MAST <input type="checkbox"/> Remove scoop stretcher.
Diaper Method	<input type="checkbox"/> Place device at patient's feet <input type="checkbox"/> Slide device up under patient's legs with center of device in the center of the patient's back <input type="checkbox"/> Gently lift patient's buttocks with one rescuer on each side <input type="checkbox"/> Slide device up to lower costal margin just below rib
Modified Diaper Method	<input type="checkbox"/> Loosely fasten Velcro on legs and abdomen section of device <input type="checkbox"/> Rescuer one inserts arms through the bottom of the legs of the device and pulls the device up onto his arms until his hands extend through the abdominal section (The device will be bunched up on rescuer one's arms) <input type="checkbox"/> Rescuer one is positioned at the feet of the supine patient and grasps the patient's feet <input type="checkbox"/> Rescuer two then grasps the top of the abdominal section of the device and gently pulls them up onto the patient's body until the top of the abdominal section is even with the costal margin

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-41 PNEUMATIC COUNTER-PRESSURE DEVICE (Continued)

USING PASG/MAST WITH TRACTION SPLINT	
Apply with Traction Splint Method A	<input type="checkbox"/> Place device on patient <input type="checkbox"/> Place traction splint on leg over PASG/MAST (See TTG 47-48) <input type="checkbox"/> Inflate device
Apply with Traction Splint Method B	<input type="checkbox"/> Place traction splint on leg <input type="checkbox"/> Apply PASG/MAST over splint <input type="checkbox"/> Inflate compartments except compartment over the splint
Secure Device in Place	<input type="checkbox"/> Wrap the left leg of the garment around the patient's left leg <input type="checkbox"/> Secure with Velcro straps <input type="checkbox"/> Wrap the right leg of the garment around the patient's right leg <input type="checkbox"/> Secure the Velcro straps <input type="checkbox"/> Wrap abdomen section around the patient's abdomen <input type="checkbox"/> Secure with Velcro straps
Contact Medical Control	<input type="checkbox"/> Obtain order to inflate from medical direction, either on-line or off-line
Inflate Device	<input type="checkbox"/> Attach foot pump to all three valves and open all stopcocks <input type="checkbox"/> Inflate device until one of the following occurs: <ul style="list-style-type: none"> • Systolic pressure is maintained between 100 to 110 mm • Air is released through the relief valves • Velcro begins to crackle <input type="checkbox"/> Close all stopcocks <input type="checkbox"/> Do not inflate abdominal section on pediatric patients
Maintain Inflation	<input type="checkbox"/> Monitor blood pressure constantly to control bleeding <input type="checkbox"/> Increase or decrease device pressure as needed to keep systolic pressure 100-110 mm Hg or until maximum inflation is achieved
Reassess	<input type="checkbox"/> Assess level of consciousness, respiratory status, and patient response

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-42 SPLINTING – LONG BONES
For Injuries to Humerus, Radius, Ulna, Tibia, or Fibula

PERFORMANCE	PROCEDURES
Determine Need for Splinting	<ul style="list-style-type: none"> ___ Assess for: <ul style="list-style-type: none"> • Pain • Swelling • Deformity ___ Determine if splinting is warranted
Apply Manual Stabilization	<ul style="list-style-type: none"> ___ Support affected limb and limit movement
Select Appropriate Splinting Materials	<ul style="list-style-type: none"> ___ Select appropriate splinting method depending on position of extremity and materials available ___ Select appropriate padding material
Prepare for Splinting	<ul style="list-style-type: none"> ___ Remove or cut away clothing as needed ___ Assess PMS distal to the injury: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function ___ Cover any open wounds with sterile dressing and bandage ___ Align with gentle traction if no resistance is met and there is severe deformity ___ Align with gentle traction if no resistance is met and if distal extremity is cyanotic and or lacks a pulse ___ Pad around splint for patient comfort
Splint	<ul style="list-style-type: none"> ___ Immobilize site of injury ___ Immobilize joints above and below the site of injury ___ Maintain support while splinting <p>Upper Extremity:</p> <ul style="list-style-type: none"> ___ Secure splinted arm to chest with a sling and swathe ___ Place sufficient padding such as a pillow or rolled blanket between the arm and chest, if arm is in a fixed position, away from the body <p>Lower Extremity:</p> <ul style="list-style-type: none"> ___ Consider immobilizing to other leg or long backboard ___ Pad as needed
Reassess	<ul style="list-style-type: none"> ___ Reassess PMS distal to the injury ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-43 SPLINTING –DISLOCATED AND FRACTURED JOINTS

For injuries to Shoulder, Elbow, Wrist, Hip, Knee, or Ankle

PERFORMANCE	PROCEDURES
Determine Need for Splinting	<ul style="list-style-type: none"> ___ Assess for: <ul style="list-style-type: none"> • Pain • Swelling • Deformity ___ Determine if splinting is warranted
Apply Manual Stabilization	<ul style="list-style-type: none"> ___ Support affected limb and limit movement ___ Do not attempt to reduce dislocations
Select Appropriate Splinting Materials	<ul style="list-style-type: none"> ___ Select appropriate splinting method depending on position of extremity and materials available ___ Select appropriate padding material
Prepare for Splinting	<ul style="list-style-type: none"> ___ Remove or cut away clothing as needed ___ Assess PMS distal to the injury: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function ___ Cover any open wounds with sterile dressing and bandage ___ Align with gentle traction if no resistance is met and there is severe deformity ___ Align with gentle traction if no resistance is met and distal extremity is cyanotic and or distal extremity lacks a pulse ___ Pad around splint for patient comfort
Splint	<ul style="list-style-type: none"> ___ Immobilize the site of injury ___ Immobilize bones above and below the site of injury ___ Maintain support while splinting ___ Splint in position of comfort if resistance is met <p>Upper Extremity:</p> <ul style="list-style-type: none"> ___ Secure splinted arm to chest with a sling and swathe. ___ If arm is in a fixed position away from the body, place sufficient padding such as a pillow or rolled blanket between the arm and chest <p>Lower Extremity:</p> <ul style="list-style-type: none"> ___ Consider immobilizing to other leg or long backboard, padding as needed ___ Place sufficient padding such as a pillow or rolled blanket between the leg and the splint, if leg is in a fixed position away from the body
Reassess	<ul style="list-style-type: none"> ___ Reassess PMS ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-44 SPLINTING –CLAVICLE

PERFORMANCE	PROCEDURES
Determine Need for Splinting	___ Assess for: <ul style="list-style-type: none"> • Pain • Swelling • Deformity ___ Determine if splinting is warranted
Apply Manual Stabilization	___ Support affected limb and limit movement
Select Appropriate Splinting Material	___ Choose a sling and swathe
Prepare for Splinting	___ Remove or cut away clothing as needed ___ Cover any open wounds with sterile dressing and bandage
Apply Splint	___ Place arm on affected side in a sling ___ Swathe arm to body to provide support
Reassess	___ Reassess PMS ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-45 SPLINTING –FLAIL CHEST

PERFORMANCE	PROCEDURES
Determine Need for Splinting	___ Assess for: <ul style="list-style-type: none"> • Pain • Swelling • Deformity ___ Determine if splinting is warranted
Select Appropriate Splinting Material	___ Choose a pillow, blanket, folded sheet or other appropriate splinting material
Prepare for Splinting	___ Remove or cut away clothing as needed ___ Cover any open wounds with sterile dressing and bandage
Apply Splint	___ Affix splint to chest with adhesive tape or roller bandage ___ Immobilize the site of injury ___ Use caution when taping splint to chest circumferentially ___ Ensure sufficient chest expansion
Reassess	___ Assess patient response and level of comfort
Assist ventilations	___ Assist with ventilation as needed

EMT BASIC TEACHING AND TESTING GUIDELINES

TTG-46 SPLINTING –HIP

Use living or padded board splints

PERFORMANCE	PROCEDURES
Determine Need for Splinting	<ul style="list-style-type: none"> ___ Assess for: <ul style="list-style-type: none"> • Pain • Swelling • Deformity ___ Determine if splinting is warranted
Apply Manual Stabilization	<ul style="list-style-type: none"> ___ Support affected limb and limit movement <ul style="list-style-type: none"> • Do not attempt to reduce dislocations
Select Appropriate Splint	<ul style="list-style-type: none"> ___ Choose living splint, padded boards or PASG/MAST
Prepare for Splinting	<ul style="list-style-type: none"> ___ Remove or cut away clothing as needed ___ Assess PMS distal to the injury: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function ___ Cover any open wounds with sterile dressing and bandage ___ Align with gentle traction if no resistance is met and there is severe deformity ___ Align with gentle traction if no resistance is met and distal extremity is cyanotic and or distal extremity lacks a pulse ___ Measure splint ___ Pad around splint for patient comfort
Splint	<ul style="list-style-type: none"> ___ Immobilize the site of injury ___ Maintain support while splinting ___ Immobilize bones above and below the site of injury <p>Living Splint:</p> <ul style="list-style-type: none"> ___ Immobilize the site of injury ___ Carefully place a pillow or folded blanket between the patients knees/legs ___ Bind the legs together with wide straps or cravats ___ Carefully place patient on long spine board or scoop stretcher ___ Secure the patient to the long spine board or scoop stretcher <p>Padded Board Splint:</p> <ul style="list-style-type: none"> ___ Splint with two, long padded splinting boards <ul style="list-style-type: none"> (One should be long enough to extend from the patient’s armpit to beyond the foot. The other should extend from the groin to beyond the foot) ___ Cushion with padding in the armpit and groin and all voids created at the ankle and knee ___ Secure the splinting boards with straps or cravats ___ Carefully place patient on long spine board ___ Secure the patient to the long spine board
Reassess	<ul style="list-style-type: none"> ___ Reassess PMS ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-47 SPLINTING –FEMUR USING HARE TRACTION SPLINT

PERFORMANCE	PROCEDURES
Determine need for Traction Splinting	<ul style="list-style-type: none"> ___ Assess for any these conditions at mid-thigh <ul style="list-style-type: none"> • Pain • Swelling • Deformity ___ Determine if Hare traction splinting is warranted
Check for contraindications	<ul style="list-style-type: none"> ___ Check for any contraindications <ul style="list-style-type: none"> • Injury is close to or at the knee • Injury to the pelvis, hip or knee exists • Lower leg or ankle injury • Partial amputation or avulsion with bone separation and distal limb is connected only by marginal tissue
Apply Manual Traction	<ul style="list-style-type: none"> ___ Apply appropriate manual traction
Prepare for Splinting	<ul style="list-style-type: none"> ___ Remove or cut away clothing as needed ___ Consider removing the patient's shoe ___ Assess PMS distal to the injury: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function ___ Cover any open wounds with sterile dressing and bandage ___ Adjust length of splint to length of uninjured leg plus 12-15 inches Apply padding to appropriate places: <ul style="list-style-type: none"> ___ Groin where strap will pass over femoral artery ___ Under knee for adequate support
Apply Splint	<ul style="list-style-type: none"> ___ Slip splint under patient's leg and up under patient until bar rests against the ischial tuberosity ___ Secure groin/ischial strap over padding ___ Attach the padded ankle hitch ___ Tighten to appropriate traction ___ Secure appropriate support straps avoiding wounds or knee
Secure Patient and Splint.	<ul style="list-style-type: none"> ___ Secure torso to the long spine board to immobilize hip ___ Secure splint to the long spine board to prevent movement of splint
Reassess	<ul style="list-style-type: none"> ___ Reassess PMS ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-48 SPLINTING –FEMUR USING SAGER SPLINT

PERFORMANCE	PROCEDURES
Determine Need for Splinting	<ul style="list-style-type: none"> ___ Assess for any these conditions at mid-thigh <ul style="list-style-type: none"> • Pain • Swelling • Deformity ___ Determine if Sager splinting is warranted
Check for Contraindications	<ul style="list-style-type: none"> ___ Check for any contraindications <ul style="list-style-type: none"> • Injury is close to or at the knee • Injury to the pelvis, hip or knee exists • Lower leg or ankle injury • Partial amputation or avulsion with bone separation and distal limb is connected only by marginal tissue
Apply Manual Traction	<ul style="list-style-type: none"> ___ Apply appropriate manual traction
Prepare for Splinting	<ul style="list-style-type: none"> ___ Remove or cut away clothing as needed ___ Remove the patient's shoe ___ Assess PMS distal to the injury: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function ___ Cover any open wounds with sterile dressing and bandage ___ Extend splint so wheel is at heel of uninjured leg ___ Adjust Kydex buckle so will be on top of thigh when closed
Apply Splint.	<ul style="list-style-type: none"> ___ Place splint between patient's leg so perineal cushion is snug against perineum and ischial tuberosity ___ Ensure that no perineal tissue entrapment has occurred ___ Tighten strap, drawing perineal-ischial pad to lateral portion of groin ___ Apply ankle harness tightly around ankle above maleoli of ankle ___ Extend inner shaft of splint until desired amount of traction reached (Approximately 10% of body weight, max 25 lbs) ___ Record tension shown on scale <p>Apply straps and pad as needed between metal bar and leg:</p> <ul style="list-style-type: none"> ___ Apply longest 6" wide thigh strap as high up as possible ___ Apply the second longest 6" wide thigh strap around knee ___ Apply shortest 6" wide strap over ankle harness and lower leg ___ Apply figure-eight strap around both ankles and secure snugly
Secure Patient and Splint.	<ul style="list-style-type: none"> ___ Secure torso to the long spine board to immobilize hip ___ Secure splint to the long board to prevent movement of splint
Reassess	<ul style="list-style-type: none"> ___ Reassess PMS ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-49 IMMOBILIZATION OF CERVICAL SPINE

PERFORMANCE	PROCEDURES
Establish and Maintain In-line Immobilization.	<ul style="list-style-type: none"> ___ Place head in a neutral, in-line position unless patient complains of pain or the head is not easily moved into position. ___ Place head in alignment with spine. ___ Maintain constant manual in-line immobilization until the patient is properly secured to a backboard with the head immobilized.
Assess PMS	<ul style="list-style-type: none"> ___ Assess PMS in all extremities: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function
Assess Cervical Region and Neck	<ul style="list-style-type: none"> ___ Inspect and palpate for injuries or signs of injuries using: ___ D-C-A-P-B-T-L-S acronym ___ Check for JVD ___ Check for tracheal deviation ___ Check for crepitance ___ Remove clothing or jewelry as necessary
Bandage Any Wound	<ul style="list-style-type: none"> ___ Immobilize the cervical spine prior to bandaging any neck wounds
Apply Cervical Spine Immobilization	<ul style="list-style-type: none"> ___ Apply properly sized collar or manual immobilization
	<p>One piece C-collar:</p> <ul style="list-style-type: none"> ___ Select properly sized collar ___ Apply collar ___ Ensure that patient's head is not twisted during application ___ Ensure airway is open after placement <p>Two piece C-collar:</p> <ul style="list-style-type: none"> ___ Select properly sized collar ___ Apply rear section to back of neck ___ Center rigid support on spine ___ Apply front section (overlaps rear section) ___ Ensure chin rests in chin cavity ___ Secure collar with Velcro straps ___ Ensure airway is open after placement <p>Horse-collar:</p> <ul style="list-style-type: none"> ___ Place rolled towel around the patient's neck and tape two ends together below chin ___ Ensure airway is open after placement <p>Alternative:</p> <ul style="list-style-type: none"> ___ Have rescuer hold the head manually ___ Ensure airway is open after placement
Secure Head to Appropriate Immobilization Device	<ul style="list-style-type: none"> ___ Immobilize patient to appropriate immobilization device (TTG-50-52) ___ Use head bed or place rolled towels on each side of head ___ Tape head securely to appropriate immobilization device
Reassess	<ul style="list-style-type: none"> ___ Reassess PMS ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-50 IMMOBILIZATION –LONG SPINE BOARD (Backboard)

PERFORMANCE	PROCEDURES
Move the Patient Onto the Long Spine Board	<ul style="list-style-type: none"> — One EMT at the head must maintain in-line immobilization of the head and spine — EMT at the head directs the movement of the patient — Other EMTs control movement of the rest of body — Other EMTs position themselves on same side — Upon command of EMT at the head roll patient onto side toward EMTs — Quickly assess posterior body, if not already done — Place long spine board next to the patient with top of board approximately 12 to 18 inches beyond top of head — Place patient onto the board at command of the EMT at head while holding in-line immobilization using methods to limit spinal movement — Slide patient into proper position using smooth coordinated moves keeping spine in alignment
Pad Voids Between Patient and Long Spine Board	<ul style="list-style-type: none"> — Select and use appropriate padding <p>Adult:</p> <ul style="list-style-type: none"> — Place padding as needed under the head — Place padding as needed under torso <p>Infant or child:</p> <ul style="list-style-type: none"> — Use towel pad under shoulders to the buttock to establish a neutral, in-line head position — Use towel or blanket rolls to fill voids around patient. Snug against ribs to eliminate sliding, yet still allow for diaphragmatic breathing <ul style="list-style-type: none"> • Infants and children may be immobilized in their car seat if not seriously injured • Use towels or blankets to fill voids
Immobilize Body to the Long Spine Board	<ul style="list-style-type: none"> — Strap and secure body to board ensuring spinal immobilization, beginning at shoulder and working toward feet
Immobilize Head to the Long Spine Board	<ul style="list-style-type: none"> — Use head-bed or place rolled towels on each side of head — Tape and/or strap head securely to board, ensuring cervical spine immobilization
Reassess	<ul style="list-style-type: none"> — Reassess PMS — Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-51 IMMOBILIZATION –SHORT SPINE BOARD

PERFORMANCE	PROCEDURES
Position Device	__ Place board behind the patient
Secure Patient's Torso	__ Secure straps around patient's torso and abdomen
Evaluate Torso Fixation and Adjust as Necessary	__ Adjust straps and position without excessive movement of the patient
Pad Behind Patient's Head	__ Pad behind the patient's head as necessary to maintain neutral in-line immobilization
Secure the Patient's Head	__ Strap or tape patient's head to the board ensuring immobilization
Place Patient onto Long Spine Board	__ Insert long board under the patient's buttocks rotating and lowering patient to lie flat on board __ Consider other methods that may be needed to lower patient to the long spine board
Reassess	__ Reassess PMS __ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-52 IMMOBILIZATION –CONFORMING EXTRICATION DEVICES

Using KED or ZED

PERFORMANCE	PROCEDURES
Position Conforming Extrication Device	<ul style="list-style-type: none"> ___ Place the extrication device behind patient by sliding the smooth side against the patient ___ Center device on patient low enough for chest section to pass under axilla ___ Extend leg straps until clear of device
Secure Device to Patient	<ul style="list-style-type: none"> ___ Wrap chest supports around patient’s torso ___ Ensure the device is snug in the axilla of the patient ___ Buckle middle chest strap ___ Buckle bottom chest strap (unless patient is pregnant) ___ Snug middle and bottom chest straps to prevent patient movement ___ Place leg straps in position under patient’s legs and buttocks ___ Pad groin area under straps ___ Buckle leg straps on appropriate side of device ___ Snug leg straps ___ Buckle top chest strap and make snug
Pad Between Patient and KED	<p>Adult only:</p> <ul style="list-style-type: none"> ___ Pad behind head to maintain neutral, in-line immobilization ___ Select and use appropriate padding to fill voids around patient <p>Children less than Eight:</p> <ul style="list-style-type: none"> ___ Pad from shoulders to heels to establish a neutral, in-line head position ___ Select and use appropriate padding to fill voids around patient
Secure Patient’s Head to Device	<ul style="list-style-type: none"> ___ Strap or tape patient’s head to the board ensuring immobilization ___ Release manual immobilization of head
Place Patient on Long Spine Board	<ul style="list-style-type: none"> ___ Rotate or lift the patient to the long spine board
Release Legs Straps	<ul style="list-style-type: none"> ___ Release leg straps and have patient lower legs to long spine board ___ Secure released leg straps
Immobilize Patient Onto Long Spine Board	<ul style="list-style-type: none"> ___ Immobilize patient to long spine board (TTG-50)
Reassess	<ul style="list-style-type: none"> ___ Reassess PMS ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-53 HELMET REMOVAL

PERFORMANCE	PROCEDURES
Determine Need for Helmet and or Face Mask Removal	<ul style="list-style-type: none"> ___ Consider if there is inadequate immobilization of head within helmet ___ Consider need for control of life threatening bleeding ___ Consider inability to manage airway or breathing ___ Consider removal of face mask ___ Consider need to remove shoulder pads to maintain spinal alignment if helmet is removed
Removal of Face Mask	<ul style="list-style-type: none"> ___ Work with certified Athletic Trainers, if present ___ Immobilize helmet ___ Carefully cut off all mask holders using anvil pruner, trainer angel, facemask extractor, or PVC pipe cutter ___ Carefully remove face mask
Prepare for Removal of Helmet	<ul style="list-style-type: none"> ___ Take eyeglasses, goggles, or other eyewear off, if necessary
Removal of the Helmet	<ul style="list-style-type: none"> ___ Work with certified Athletic Trainers, if present ___ One EMT stabilizes helmet by placing hands on either side of helmet and holding jaw to prevent further movement. ___ A second EMT unstraps helmet ___ The second EMT stabilizes angle of jaw and places other hand at occipital region ___ The EMT stabilizing helmet rotates helmet anteriorly off the occiput ___ The EMT stabilizing helmet gently slips the helmet off head until it reaches halfway point ___ The EMT maintaining stabilization of the neck repositions, slides the posterior hand superiorly to secure the head from falling back after complete helmet removal ___ The EMT stabilizing helmet removes helmet in a manner that maintains stabilization of cervical spine ___ Perform cervical spine immobilization (TTG-49) ___ Perform spinal immobilization (TTG-50-52)
Reassess	<ul style="list-style-type: none"> ___ Assess patient response and level of comfort

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-54 LIFTING AND MOVING GUIDELINES

PERFORMANCE	PROCEDURES
Lifting Techniques	<ul style="list-style-type: none"> — Use legs not back, to lift — Keep weight as close to body as possible — Consider weight of patient and need for additional help — Know physical ability and limitations — Position feet properly — Use at least two people — Communicate clearly and frequently with partner — Use power-lift position, keep back locked into normal curvature — Lift without twisting — Hands should be at least 10 inches apart — Use power grip to get maximum force from hands — Avoid bending at the waist
Carrying Guidelines	<ul style="list-style-type: none"> — Know or find out the weight to be lifted — Work in a coordinated manner, communicate with partners — Keep the weight as close to the body as possible — Keep back in a locked-in position and refrain from twisting — Flex at the hips, not the waist; bend at the knees — Do not hyper-extend the back (do not lean back from the waist)
Carrying Procedure	<ul style="list-style-type: none"> — Use correct lifting techniques to lift the stretcher — Partners should have similar strength and height
One-handed technique	<ul style="list-style-type: none"> — Pick up and carry with the back in the locked-in position — Avoid leaning to compensate for the imbalance
Carrying Procedures for Stairs	<ul style="list-style-type: none"> — Use a stair chair instead of a stretcher when possible — Keep back in locked-in position — Flex at the hips, not the waist; bend at the knees — Keep weight and arms as close to the body as possible
Reaching Technique	<ul style="list-style-type: none"> — Keep back in locked-in position — Avoid hyper-extended position when reaching overhead — Avoid twisting the back while reaching — Avoid reaching more than 20 inches in front of the body — Avoid situations where prolonged strenuous effort is required
Reaching Technique for Log Rolls	<ul style="list-style-type: none"> — Keep back straight while leaning over patient — Lean from the hips
Push and Pull Techniques	<ul style="list-style-type: none"> — Push, rather than pull, whenever possible — Keep back locked-in — Keep line of pull through center of body by bending knees — Keep weight close to the body — Push from the area between the waist and shoulder — Use kneeling position if weight is below waist level — Avoid pushing or pulling from an overhead position if possible — Keep elbows bent with arms close to the sides

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-55 EMERGENCY MOVES

PERFORMANCE	PROCEDURES
Determine Need for Emergency Move	<ul style="list-style-type: none"> — Determine if immediate danger is present — Determine if you have sufficient time and safety — Look for: <ul style="list-style-type: none"> • Fire or danger of fire • Inability to protect patient from other hazards at the scene • Inability to gain access to other patients in a vehicle who need life-saving care • Life-saving care cannot be given because of the patient's location or position, e.g. cardiac arrest patient sitting in chair, lying on bed, or in a confined space such as a bathroom
Pull Patient in Proper Direction	<ul style="list-style-type: none"> — Pull patient in the direction of the long axis of the body to provide as much protection to the spine as possible
If Patient is on the Floor or Ground	<ul style="list-style-type: none"> — Grasp the patient's clothing at the neck and shoulder area — Put the patient on a blanket and drag the blanket — Place hands under the patient's armpits (from the back), grasping the patient's forearms and dragging the patient

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-56 URGENT MOVES

PERFORMANCE	PROCEDURES
Determine Need for Urgent Move	<p>— Determine if there is immediate threat to patient's life if the patient is not moved, such as:</p> <ul style="list-style-type: none"> • Altered mental status • Inadequate breathing • Shock (hypoperfusion) • Must move a patient out of the way to get to the patient that requires the urgent move
Pull Patient in Proper Direction	<p>— Pull patient in the direction of the long axis of the body to provide as much protection to the spine as possible</p>
If Patient is in Vehicle	<p>— One EMT gets behind patient and brings cervical spine into neutral in-line position and provides manual immobilization</p> <p>— Second EMT applies cervical immobilization device</p> <p>— Third EMT places long backboard near the door and then moves to passenger seat</p> <p>— Second EMT supports the thorax as the third EMT frees the patient's legs from the pedals</p> <p>— At the direction of the second EMT, the second EMT and the third EMT rotate the patient in several short, coordinated moves until the patient's back is in the open doorway and his feet are on the passenger seat</p> <p>— Another available EMT or bystander supports the patient's head as the first EMT gets out of the vehicle and resumes support of the head outside of the vehicle</p> <p>— The end of the long backboard is placed on the seat next to the patient's buttocks. Assistants support the other end of the board as the first EMT and the second EMT lower the patient onto it. It is desirable to have head-end of board raised to minimize distance to lower patient, then board can be lowered</p> <p>— Third EMT moves around to patient side and second EMT and third EMT slide the patient into the proper position on the board in short, coordinated moves at the command of first EMT</p> <p>— Several variations of the technique are possible</p> <p>— Must be accomplished without compromise to the spine</p>

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-57 NON-URGENT MOVES

PERFORMANCE	PROCEDURES
Determine Need for Non-Urgent Move	<ul style="list-style-type: none"> — Ensure there is no immediate threat to the patient's or the EMT's life
Moving Supine Patient from Ground to Stretcher	
Direct Ground Lift (No suspected spine injury)	<ul style="list-style-type: none"> — Two or three rescuers line up on one side of the patient — Rescuers kneel on one knee (the same knee for all rescuers) — Place patient's arms on his chest if possible — The rescuer at the head places one arm under the patient's neck and shoulder and cradles the patient's head. He places his other arm under the patient's lower back — The second rescuer places one arm under the patient's knees and one arm above the buttocks — If a third rescuer is available, he should place both arms under the waist and the other two rescuers slide their arms either up to the mid-back or down to the buttocks as appropriate — On signal, the rescuers lift the patient to their knees and roll the patient in toward their chests — On signal, rescuers stand and move the patient to the stretcher. — To lower the patient, the steps are reversed
Extremity Lift (No suspected extremity injuries)	<ul style="list-style-type: none"> — One rescuer kneels at the patient's head and one rescuer kneels at the patient's side by his knees — Rescuer at head places one hand under each of the patient's shoulders while the rescuer at the foot grasps the patient's wrists — Rescuer at the head slips his hands under the patient's arms and grasps the patient's wrists — Rescuer at patient's foot slips his hands under patient's knees — Both rescuers move up to a crouching position — Rescuers stand up simultaneously and move patient to a stretcher

EMT BASIC TEACHING AND TESTING GUIDELINES
TTG-57 NON-URGENT MOVES (Continued)

Transferring Supine Patient from Bed to Stretcher	
Direct Carry	<ul style="list-style-type: none"> ___ Position cot perpendicular to bed with head end of cot at foot of bed ___ Prepare cot by unbuckling straps and removing other items ___ Both rescuers stand between bed and stretcher, facing patient ___ First rescuer slides arm under patient's neck and cups patient's shoulder ___ Second rescuer slides hand under hip and lifts slightly ___ First rescuer slides other arm under patient's back ___ Second rescuer places arms underneath hips and calves ___ Rescuers slide patient to edge of bed ___ Patient is lifted/curled toward the rescuers' chests ___ Rescuers rotate and place patient gently onto cot
Draw Sheet Method	<ul style="list-style-type: none"> ___ Loosen bottom sheet of bed ___ Position cot next to bed ___ Prepare cot <ul style="list-style-type: none"> • Adjust Height • Lower Rails • Unbuckle Straps ___ Reach across cot and grasp sheet firmly at patient's head, chest, hips and knees ___ It may be necessary to climb onto cot to get closer (See TTG-54) ___ Slide patient gently onto cot