



# Part VI:

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# Trauma

## EMT Curriculum Correlation Guide

### Trauma Emergencies

EMT Course Topic	EMT Review Audio Lectures App	Other Resources
	<p>Each segment is like an insightful lecture. If you don't have this app for your class, learn more at <a href="http://bit.ly/LCReady-Audio">http://bit.ly/LCReady-Audio</a></p>	
Bleeding & Shock	Bleeding Audio Shock Audio	<p>Discussion Board Questions (attached below)</p> <p><a href="#">Vital Sign Trends</a> (Videos)</p>
Soft Tissue Trauma	Soft Tissue Trauma Audio	
Chest & Abdominal Trauma	Chest Trauma Audio Abdominal Trauma Audio	Discussion Board Questions (attached below)
Head Injuries & Spinal Trauma	Head Trauma Audio Spinal Trauma Audio	<p>Discussion Board Questions (attached below)</p> <p><a href="#">Traumatic Brain Injury</a> (Article)</p>
Musculoskeletal Trauma		Discussion Board Questions (attached below)
Multi-system Trauma		<p><a href="#">Crush Syndrome: A Case Study</a> (Article)</p> <p><a href="#">Compartment Syndrome: A Case Study</a> (Article)</p>
Trauma Overview		Trauma Emergencies study cards and review questions in the <a href="#">EMT Review Plus App</a> .

## EMT Discussion Board Questions

### Trauma: Bleeding and Shock

<p>You are at a trauma call with your experienced partner. Your patient was kicked in the abdomen by a horse. She says, "Let's get moving! I don't like the way this guy looks." Other than the obvious mark from the kick, list 3 or 4 things you think you might find or observe in this patient that would justify her belief he may be serious.</p>	<ul style="list-style-type: none"> <li>• Rapid pulse and respirations</li> <li>• Cool, pale, moist skin</li> <li>• Anxiety or change in mental status</li> <li>• Narrowed pulse pressure or low blood pressure</li> </ul>
<p>Your patient was stabbed in the left chest. One crew member on the scene believes the patient has cardiac tamponade. Another believes it is tension pneumothorax. List three ways these conditions will present similarly and two ways you could potentially tell them apart.</p>	<p>Both might present with JVD, tachycardia, reduced preload/narrowed pulse pressure, hypotension, poor skin color, etc.</p> <p>Lung sounds are a big differentiator. Muffled heart sounds would be present in tamponade but maybe difficult to discern.</p>

### Trauma: Injuries to Head, Neck and Spine

<p>Consider two patients. Both were struck in the head by an assailant. One patient has a concussion. One patient has a subdural hematoma. Look up the signs and symptoms for both conditions.</p> <ul style="list-style-type: none"> <li>• How are they similar?</li> <li>• How are they different?</li> <li>• Which is more serious?</li> <li>• Can you distinguish between them in the field?</li> </ul>	<p>These conditions may be surprisingly similar at the outset. It is difficult to differentiate without more advanced clinical assessment and diagnostic tests. This issue is that the subdural can come on gradually—after the patient has left your care. It is more serious.</p>
<p>A patient with increasing intracranial pressure will develop signs and symptoms, including an elevated blood pressure and decreasing pulse.</p> <p>Explain how and why these vital signs occur.</p>	<p>The elevated blood pressure is the body's attempt to perfuse the brain against the increasing pressure within the skull.</p> <p>The reduced pulse is a result of the baroreceptors sensing the elevated blood pressure. They advise the body to lower blood pressure. This is done by lowering the pulse in an attempt to lower cardiac output.</p>

## EMT Discussion Board Questions

### Trauma: Injuries to Head, Neck and Spine

<p>Define the following terms and list one condition where you might see each.</p> <ul style="list-style-type: none"> <li>• Hemiplegia</li> <li>• Paraplegia</li> <li>• Quadriplegia</li> <li>• Paresthesia</li> </ul>	<p><b>Hemiplegia</b> – paralysis on one vertical half of the body.  <b>Paraplegia</b> – paralysis of the lower extremities.  <b>Quadriplegia</b> – paralysis of all four limbs.  <b>Paresthesia</b> – pins and needles sensation or numbness</p>
<p>A patient has a spine injury which has left him essentially unable to breathe. What level of the spine (or higher) would the injury likely be at? Why?</p>	<p>Cervical vertebrae 3-5 is the area responsible for breathing. The rhyme “C3-4-5 keeps the diaphragm alive” helps to remember this.</p>

### Trauma: Abdomen

<p>What is the difference between hollow and solid organs when it comes to damage to each in trauma?</p> <p>For each of the following, describe whether they are solid or hollow and list a mechanism or type of injury when the organ may be injured.</p> <ul style="list-style-type: none"> <li>• Liver</li> <li>• Spleen</li> <li>• Pancreas</li> <li>• Stomach</li> <li>• Small bowel/intestine</li> <li>• Large bowel/intestine</li> </ul>	<p>Hollow organs often contain digestive enzymes, acids, and food at some point in the digestive process. This creates pain and irritation when loose in the abdomen.</p> <p>Solid organs (liver, spleen, pancreas) are vascular and bleed. Hollow organs can rupture spilling contents into the abdominal cavity, causing pain and subsequent infection.</p>
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## EMT Discussion Board Questions

### Trauma: Musculoskeletal

You are treating a patient who has a closed, angulated fracture of his tibia and fibula. Based on this, answer the following questions.

- Would you straighten the extremity? Why or why not?
- What effect would straightening the extremity have on...
  - the splinting process
  - blood loss
  - nerves and blood vessels in the extremity
- Are there are times you definitely would or wouldn't straighten the extremity? Why?

Generally, angulated extremities (long bone) are straightened. This makes splinting and transport easier. It may also reduce the size of the space in the area of the fracture and help limit bleeding.

Long bones should be straightened unless there is resistance or an unusual amount of pain. It is a painful process normally.

When straightening is done properly, damage to surrounding structures is minimal.

An experienced EMT you are working with said, "Multiple extremity fractures are multiple trauma." Do you agree with this statement?

Explain why or why not.

Bones themselves bleed. Damage may also be done to surrounding vessels and tissue. If this occurs to multiple extremities, it is considered multiple trauma because of the potential for blood loss. It also takes considerable force to break multiple extremities, so the potential for other injuries exists.

## EMT Curriculum Correlation Guide

### About the resources in this curriculum guide:



#### EMT Audio Lecture apps

We have two audio lecture series (EMT and AEMT) as well as a pathophysiology audio series for EMTs and AEMTs. These can help students get the equivalent of an insightful lecture or a solid review to supplement coursework. For details and pricing, visit <http://bit.ly/LCReady-Audio>



#### EMT Review Plus app

The EMT Review Plus app contains over 1,100 items including study cards, review questions and NREMT-style practice exams, with a rationale for every answer. Critical thinking, medical terminology and pathophysiology are included. For details and pricing, visit <https://bit.ly/EMT-Review-App>



#### Limmer Education website

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