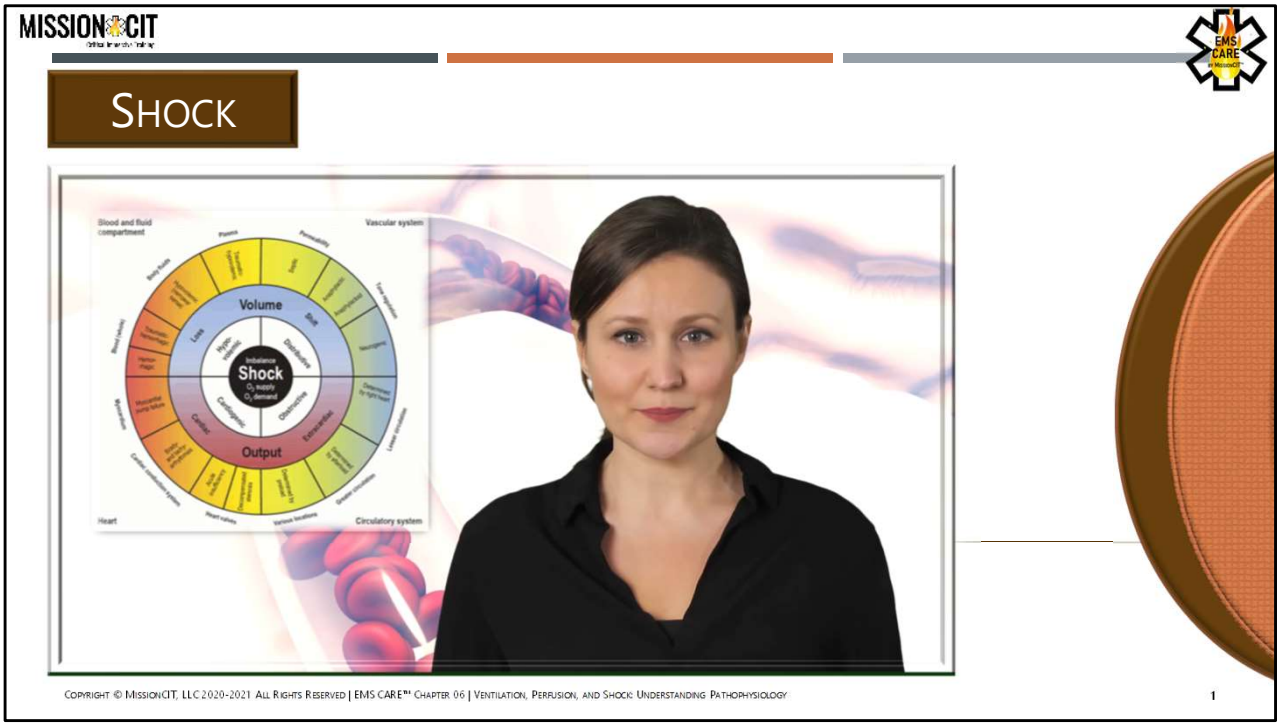
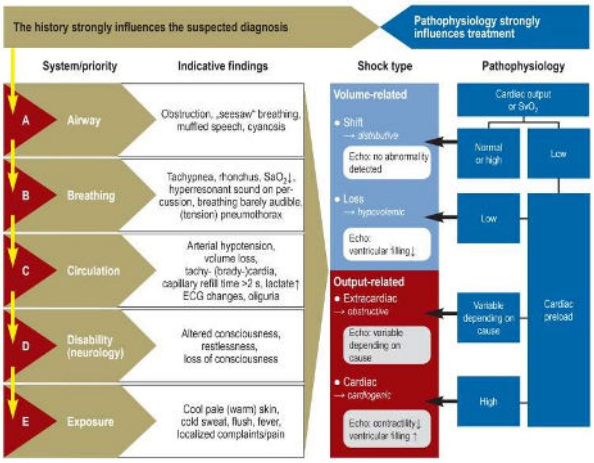


Thank you Justin. In this lesson, we discuss shock. Shock is the inability to meet the oxygen demands of the tissues. It may result from many types of conditions; medical and traumatic alike.

The image on this slide introduces the four types of shock found in the white center quadrants and the sub-types are present within each area.

Shock (Cont.)

- Perfusion
  - ✓ Regular delivery of oxygen and nutrients to cells and removal of waste products
- Hypoperfusion
  - ✓ Breakdown in system
  - ✓ Can result in death of patient



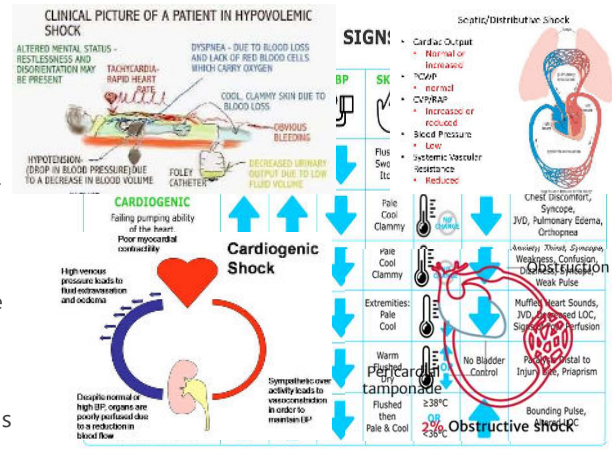
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Shock occurs when cells lack the oxygen they need for metabolism. Remember that perfusion is the regular delivery of oxygen and nutrients to cells and the removal of waste products. Hypoperfusion or shock is the inadequate delivery of vital oxygen and nutrients to body tissues, which, left unchecked, will result in organ system failure and death.

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Four Types of Shock

- Hypovolemic
  - ✓ Decreased blood in blood vessels to carry oxygen to organs
- Distributive
  - ✓ Conditions that cause blood vessels to lose their tone
- Cardiogenic
  - ✓ Damage to heart can decrease blood flow to the body
- Obstructive
  - ✓ Occurs when blood can't get where it needs to go



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There are four significant types of shock, each of which can be caused by several different events.

1. Hypovolemic Shock: This type of shock happens when there isn't enough blood in your blood vessels to carry oxygen to your organs. This can be caused by severe blood loss, for example, from injuries. Your blood delivers oxygen and vital nutrients to your organs. If you lose too much blood, your organs can't function properly. Severe dehydration can also cause this type of shock.
2. Distributive Shock: Conditions that cause your blood vessels to lose their tone can cause distributive

shock. When your blood vessels lose their tone, they can become so open and floppy that not enough blood pressure supplies your organs. Distributive shock can result in symptoms including:

- Flushing.
- Low blood pressure, and.
- Loss of consciousness.

There are several types of distributive shock, including the following: Anaphylactic shock, Septic shock, and Neurogenic shock.

3. Cardiogenic shock: Damage to your heart can decrease the blood flow to your body, leading to cardiogenic shock. Common causes of cardiogenic shock include:

- Damage to your heart muscle.
- Irregular heart rhythm, and.
- Very slow heart rhythm.

4. Obstructive shock: This type of shock occurs when blood can't get where it needs to go. A pulmonary embolism is one condition that may cause an interruption to blood flow. Conditions that can cause a buildup of air or fluid in the chest cavity can also lead to obstructive shock.

As a first responder, you can recognize shock by its external symptoms. You may also check for:

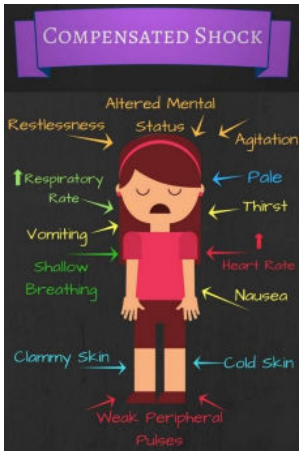
- Low blood pressure.
- Weak pulse, and.

- Rapid heartbeat.

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Recognizing Compensation

- When problems arise, body attempts to compensate
- Signs of compensated shock
  - ✓ Slight mental status changes
  - ✓ Increased heart rate
  - ✓ Increased respiratory rate
  - ✓ Delayed capillary refill time
  - ✓ Pale, cool, clammy skin
  - ✓ Sweating



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4

Compensated Shock occurs when a Patient is still interacting normally and has a normal BP. So how can you tell? Here are some of the more prevalent signs of compensated shock:

- Slight mental status changes.
- Increased heart rate.
- Increased respiratory rate.
- Delayed capillary refill time.
- Pale, cool, clammy skin, and.
- Sweating.