

The Shocked Child: Which Shock Is That?

- **Definition:**
 - Inadequate tissue perfusion, inadequate removal of wastes
- **Classification:**
 - **CARDIOGENIC**
 - Arrhythmia, cardiomyopathy, valve disease, myocardial contusion... heart failure, in short
 - **HYPOVOLEMIC**
 - Hemorrhage, gastroenteritis, intussusception
 - Also burns, etc
 - **DISTRIBUTIVE**
 - SEPSIS
 - Anaphylaxis
 - Spinal cord injury
 - Vasodilating drugs
 - **OBSTRUCTIVE**
 - Tension pneumothorax
 - Cardiac tamponade
 - Pulmonary embolism
 - **DISSOCIATIVE**
 - Anaemia
 - Carbon monoxide poisoning
 - Methaemoglobinaemia

Stages of shock

- **PHASE 1: reversible and compensated**
 - Agitation, confusion, pallor, tachycardia, cool peripheries
- **PHASE 2: reversible and uncompensated**
 - Acidosis, poor peripheral perfusion, tachypnea, hypotension
 - Organ systems are failing; urine output is poor
- **PHASE 3: irreversible**
 - Retrospective diagnosis: the organ systems have failed

A little about SEPSIS:

- abnormal distribution of blood in the microcirculation
- acidosis depresses cardiac function
- cells do not use oxygen properly: this is a problem at the mitochondrial level:
 - THUS there is an inappropriately narrow gap between arterial and mixed venous oxygen saturation (take that, Rivers study)
- Early sepsis = wide pulse pressure
- Late sepsis =
- You survive sepsis by maintaining a hyperdynamic state