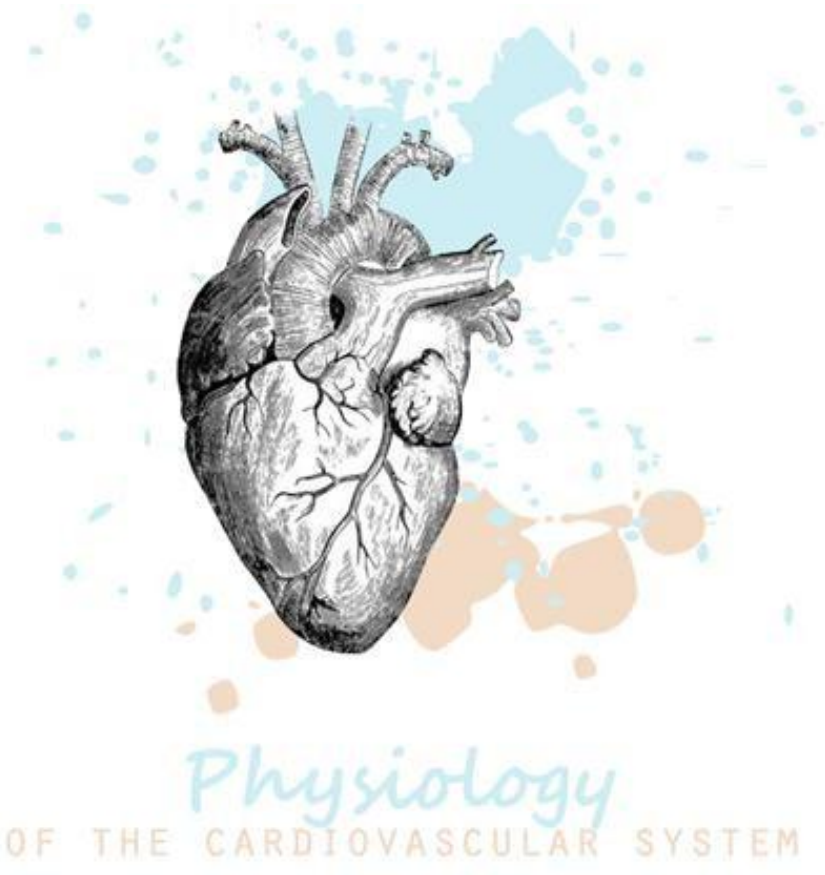
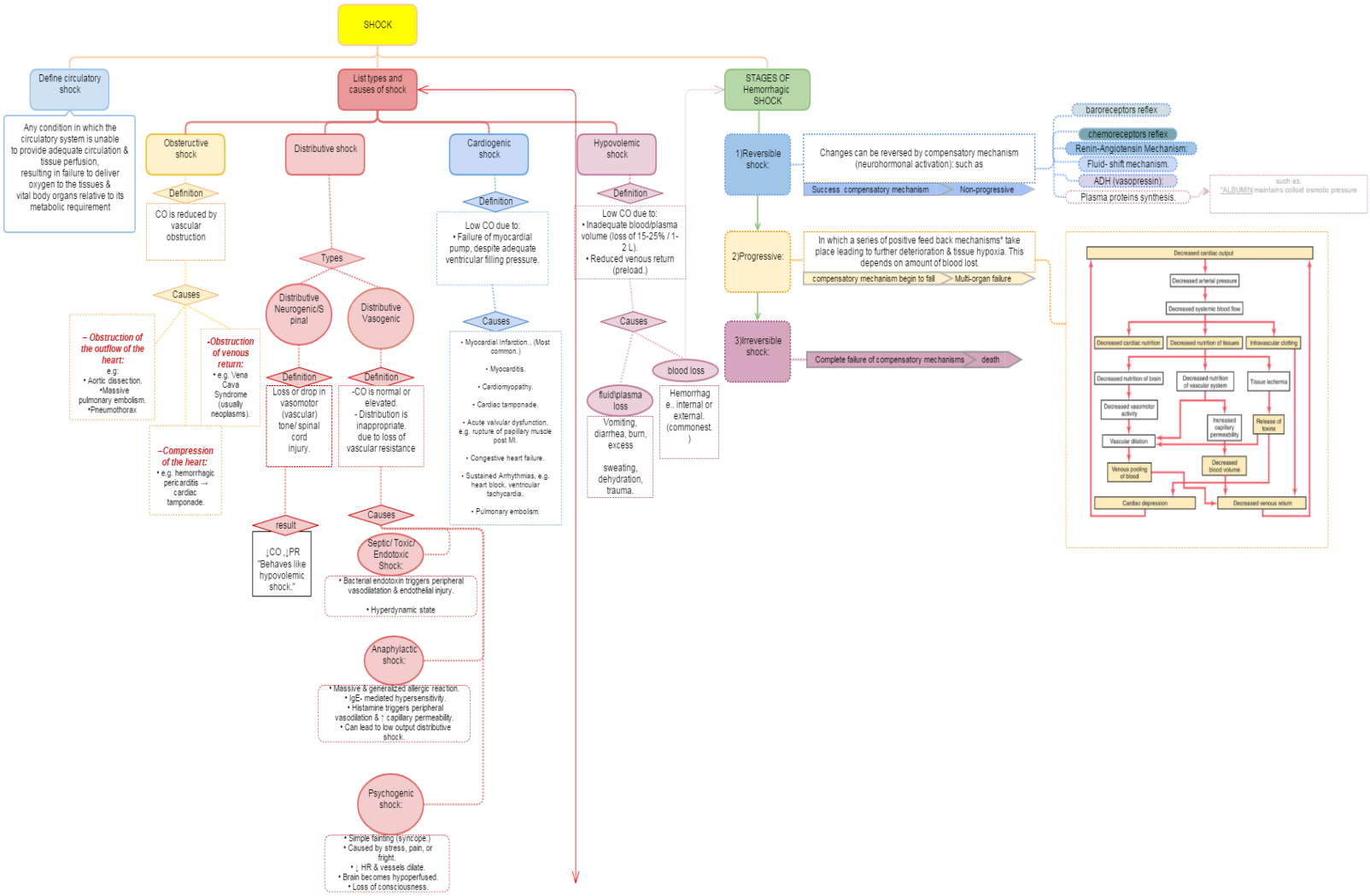
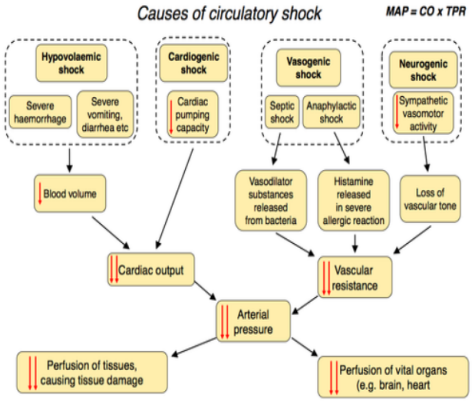
PHYSIOLOGY TEAM 435

جامعة الملك سعود
King Saud University



Shock





For The Clear Version:

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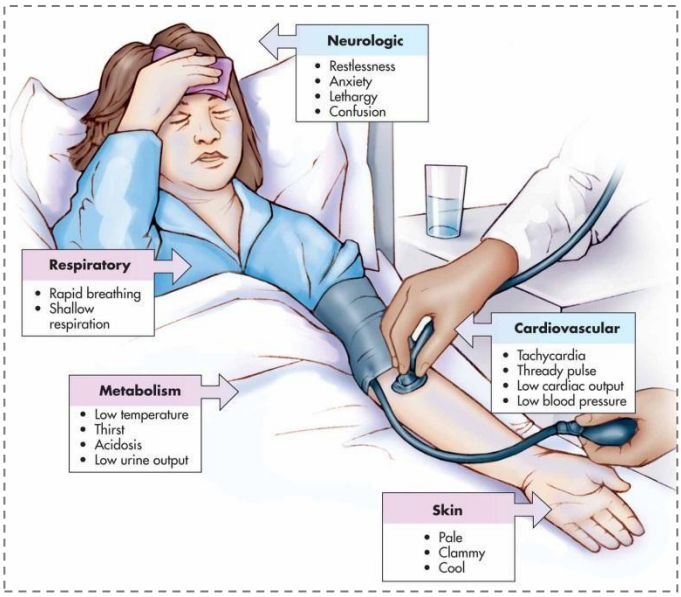
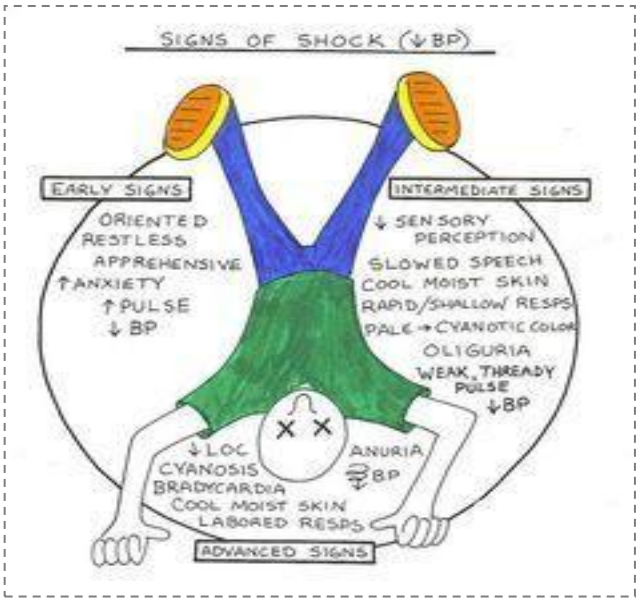
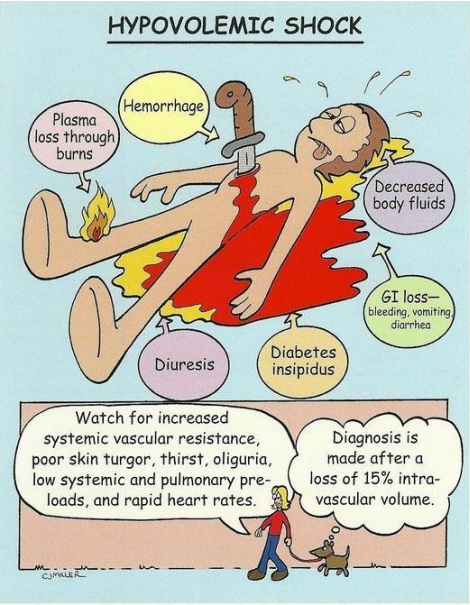
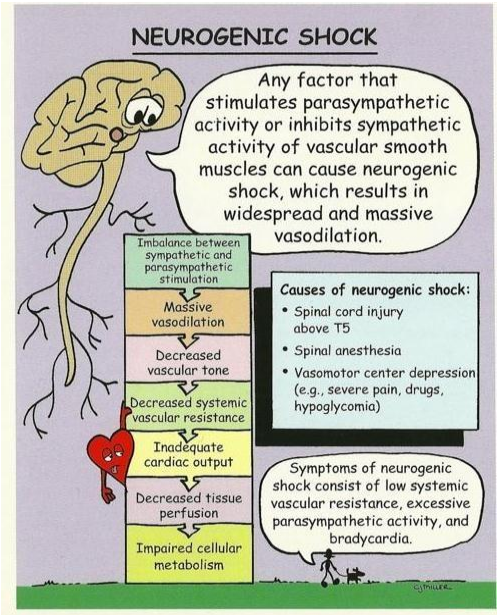
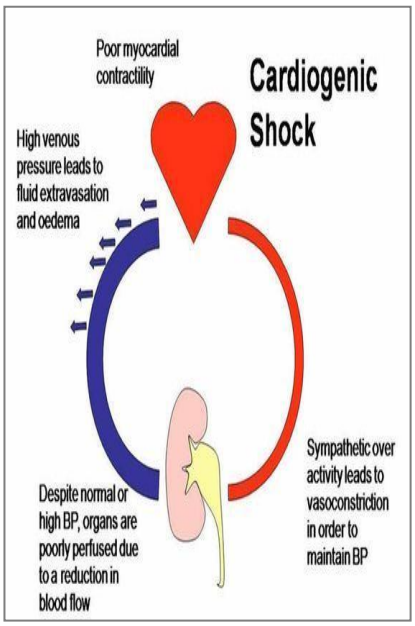

Neurologic
Restlessness
Anxiety
Lethargy
Confusion
Respiratory
Rapid breathing
Shallow respiration
Cardiovascular
Tachycardia
Thready pulse
Low cardiac output
Low blood pressure
Metabolism
Low temperature
Thirst
Acidosis
Low urine output
Skin
Pale
Clammy
Cool


SIGNS OF SHOCK (↓BP)
EARLY SIGNS
ORIENTED
RESTLESS
APPREHENSIVE
↑ANXIETY
↑PULSE
↓BP
INTERMEDIATE SIGNS
↓ SENSORY PERCEPTION
SLOWED SPEECH
COOL MOIST SKIN
RAPID/SHALLOW RESPS
PALE → CYANOTIC COLOR
OLIGURIA
WEAK, THREADY PULSE
↓BP
↓LOC
CYANOSIS
BRADYCARDIA
COOL MOIST SKIN
LABORED RESPS
ANURIA
↓↓BP
ADVANCED SIGNS


HYPOVOLEMIC SHOCK
Plasma loss through burns
Hemorrhage
Decreased body fluids
GI loss—bleeding, vomiting, diarrhea
Diuresis
Diabetes insipidus
Watch for increased systemic vascular resistance, poor skin turgor, thirst, oliguria, low systemic and pulmonary pre-loads, and rapid heart rates.
Diagnosis is made after a loss of 15% intra-vascular volume.


NEUROGENIC SHOCK
Any factor that stimulates parasympathetic activity or inhibits sympathetic activity of vascular smooth muscles can cause neurogenic shock, which results in widespread and massive vasodilation.
Imbalance between sympathetic and parasympathetic stimulation
Massive vasodilation
Decreased vascular tone
Decreased systemic vascular resistance
Inadequate cardiac output
Decreased tissue perfusion
Impaired cellular metabolism
Causes of neurogenic shock:
Spinal cord injury above T5
Spinal anesthesia
Vasomotor center depression (e.g., severe pain, drugs, hypoglycomia)
Symptoms of neurogenic shock consist of low systemic vascular resistance, excessive parasympathetic activity, and bradycardia.


Cardiogenic Shock
Poor myocardial contractility
High venous pressure leads to fluid extravasation and oedema
Sympathetic over activity leads to vasoconstriction in order to maintain BP
Despite normal or high BP, organs are poorly perfused due to a reduction in blood flow