

## NR283 Study

### Topics Spinal Cord Disorder: Dermatome Map

#### Spinal cord injury complications

#### Compression Fracture

#### Autosomal Dominant Disorder

- Need gene from both parents
- Polycystic kidney disease
- Huntingtons
- Marfan syndrome

#### Comminuted Fracture

Bone broken into multiple pieces

#### Osteoarthritis Pathophysiology

- Articular cartilage damaged; joint space narrowed; degenerative joint disease; excessive wear and tear of the joint; NOT a systemic disease

#### Immobility complication

- DVT
- PRESSURE ULCERS
- MUSCLE ATROPHY
- OSTEOPOROSIS
- PNEUMONIA
- UTIs

#### Sprain treatment

#### Pulmonary embolus manifestation

- chest pain
- dyspnea
- restlessness
- anxiety
- tachycardia
- lightheaded/fainting
- swelling from DVT (because clot can travel from legs to lungs)
- hypoxia

#### Pulmonary embolus prevention

- SUPPORT STOCKINGS
- BLOOD THINNERS
- ANTI-PLATELET MEDICATIONS
- STOP SMOKING
- ALTERNATIVE MEDICATION USE
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### Chronic Bronchitis Manifestation

- FATIGUE
- DYSPNEA
- CYANOSIS
- COUGHING
- WHEEZING
- SHORTNESS OF BREATH
- CHEST DISCOMFORT

### Emphysema Pathophysiology

- In emphysema, the inner walls of the lungs' air sacs called alveoli are damaged, causing them to eventually rupture. This creates one larger air space instead of many small ones and reduces the surface area available for gas exchange. Emphysema is a long-term lung condition that causes shortness of breath.

### Asthma Manifestation, Pathophysiology

- Asthma is characterized by **periodic, severe, but reversible, bronchial obstructive episodes**. BRONCHI AFFECTED
- DIFFICULTY BREATHING (DYSPNEA)
- WHEEZING
- COUGH
- EXCESS MUCUS PRODUCTION
- FATIGUE

### Anemia General Manifestation

- FATIGUE
- LOSS OF SKIN COLOR
- COLD
- DIZZY
- SHORTNESS OF BREATH
- CHEST PAIN

## Erythropoietin

### Sickle Cell Crises Pathophysiology

- Sickle cell crisis refers to the sudden onset of intense symptoms in individuals with **sickle cell disease (SCD)**, a genetic blood disorder. In SCD, red blood cells (RBCs) are abnormally shaped like a crescent or "sickle," which causes a variety of problems when these cells block blood flow and break down prematurely.

### Pneumonia: Manifestations

- Pneumonia attacks alveoli
- Fever
- Confusion
- LOSS OF ENERGY AND APPETITE
- MALAISE (NOT FEELING WELL)
- COUGH
- SHORTNESS OF BREATH
- SHARP PAIN AT THE SITE OF INFLAMMATION

### Impaired Gas Exchange Causes

Many different things can impact gas exchange. Here are just a few to consider:

not enough oxygen in the environment (suffocation)

too much carbon dioxide in the environment (carbon dioxide poisoning) partial or full blockage between the mouth and the alveoli (choking)

blockage of gas exchange by another substance or chemical (drowning, infection)

not enough hemoglobin to carry oxygen (anemia)

blood clots in the capillaries or veins (pulmonary emboli)

difficulty exhaling because of trapped air (asthma or chronic obstructive pulmonary disease)

muscles used to breathe are too weak (spinal cord injury, myasthenia gravis)

### Process of Gas Exchange

1. Breathe in O<sub>2</sub>/ out CO<sub>2</sub>
2. O<sub>2</sub> rich blood transported to cells
3. Gases exchanged O<sub>2</sub> enter and CO<sub>2</sub> Leaves cells