

Independent Learning Assignment

NB Musculoskeletal & Child Respiratory

1. **Cystic Fibrosis is characterized by several clinical features. How are the following systems affected? Name some major changes that may occur with the:**

- **Pancreas:** Pancreas and biliary tract effected. Plugging of exocrine ducts causes pancreatic insufficiency resulting in atrophy and progressive fibrotic cyst formation. Function can be permanently lost – insufficient enzymes (lipase, amylase, and proteases) to allow for absorptions of nutrients. CF related diabetes (CFRD) caused by underdeveloped pancreatic islet cells and destruction of islet cells over lifetime.
- **GI system:** Can cause GERD, gallstones, cirrhosis. Mucus deposits in ducts can damage liver and gall bladder. Liver enzymes may become chronically increased. Cirrhosis develops over time. Portal HTN, distal intestinal syndrome from intermittent obstruction often in the terminal ileum at the point of ileocecal junction caused by thickened dehydrated stool and mucus.
- **Pulmonary system:** obstructive pulmonary disease in the epithelial surface of airways, by blocking sodium and chloride movement through passageways causing thick secretions that plug ducts in effected organs. Airway obstruction occurs from excess mucus production, effecting upper and lower respiratory tracts. Cilia are overwhelmed with thick secretions, and motility is decreased, and mucus adheres to lining. Bronchioles become obstructed with thick mucus, scarred airways, air trapping and hyperinflation of the lungs. Lung inflammation, narrow airway, decreased lung function, increase in inflammatory mediators contribute to disease progression. Over long period, pulmonary vascular remodeling occurs b/c local hypoxia and arteriolar vasoconstriction. Enlarged pulmonary arteries, hypertension and cor pulmonale occur in later phases.
- **Growth and Development:** Fat, protein, and fat-soluble vitamins not absorbed well causing steatorrhea, failure to grow and weight gain, osteopenia/osteoporosis related to malabsorption of vitamin D, and low testosterone.

2. **Name the 3 degrees of Developmental Dysplasia of the Hip. What happens in each degree:**

Acetabular dysplasia: shallow acetabulum

Subluxation: partially displaced head of femur

Dislocation: head of femur fully displaced

3. **Name the 3 stages of treatment for clubfoot:**

Correction of deformity, maintenance of correction, follow up to prevent recurrence of deformity

Name that Croup Syndrome:

4. I am a nasty, toxic, emergency causing bacterial infection usually caused by H. Influenzae that causes my victims to have inflammation and obstruction of the airway, drooling, high fever and feel the need to sit in a tripod position for best breathing conditions:

Acute Epiglottitis (Supraglottitis)

5. I cause my victims to wake up suddenly at night, recurrently, and cause stridor, a croupy cough, hoarseness, dyspnea, and restlessness. Cool mist, humidified, cool air exposure is the treatment, and I may not even cause my victim to need treatment at the hospital:

Acute Spasmodic Laryngitis (Spasmodic Croup)