Nutritional Diseases

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Objectives

- Discuss the importance of water in the animal diet
- Discuss the need for energy in the animal diet
- Discuss the importance of minerals in animal diets
- Discuss the importance of vitamins in animal diets
- Describe the signs of protein deficiency
- Describe the signs of a phosphorus deficiency
- Describe the signs and causes of grass tetany
- Describe the signs and causes of milk fever
- Describe the signs of vitamin and mineral deficiencies
- Give examples of nutritional diseases in cats, cattle and horses
- Discuss conditions that create increased nutritional needs
Deficiency of Nutrients

- Water
  - Causes of deficiency (dehydration)
    - Gastroenteritis – diarrhea (water loss)
    - Kidney dysfunction – polyuria (water loss)
    - High salt diet – low water intake (low availability)
    - Sickness – low water intake (refusal)
    - Evaporated water tank – low water intake (refusal)
    - Stagnant water tank – low water intake (refusal)
    - Cold or hot water – low water intake (refusal)
Protein, carbohydrates, fats

- Causes of deficiency (hypoproteinemia, hypoglycemia, hypolipidemia)
  - Gastroenteritis – altered digestion, diarrhea (nutrient loss)
  - Sickness – low nutrient intake (refusal)
  - Improper diet – low nutrient intake (low availability)
Minerals

Causes of deficiency (hypocalcemia, hypomagnesemia, hypophosphatemia)

- Improper diet – low macromineral and micromineral intake (low availability)
Vitamins

Causes of deficiency (hypovitaminosis)

- Improper diet – low vitamin intake (low availability)
Common Disorders

- Protein deficiency
- Phosphorus deficiency
- Grass tetany
- Milk fever
- Secondary hyperparathyroidism
- Vitamin A deficiency
- Taurine deficiency
- Bloat
- Colic
- Founder
Disorder Symptoms

- Weight loss
- Thin body condition (skinny)
- Dull, rough hair coat
- Edema
- Ascites
- Muscle weakness
- Unable to rise (downer)