d. **Superior pons:** Establishes regularity of respiration

23. Digestion
    a. **Mouth:** digestion begins here with alpha-amylase which is in saliva and digests carbohydrates.
    b. **Esophagus:** no digestion occurs only peristalsis which move bolus
    c. **Stomach:** mixes and stores food reducing it to chyme, protein digestion begins here.
        i. Mucus cells: secrete mucus
        ii. Chief cells: secrete pepsinogen and precursor for pepsin which begins protein digestion
        iii. Parietal cells: secrete HCl to lower pH of stomach and raise pH of blood. Also secrete intrinsic factor which helps ileum absorb B12.
        iv. G cells: secrete gastrin which stimulate parietal cells to secrete HCl
    d. **Small intestine:** 90% of absorption and digestion occurs here
        i. Duodenum
        ii. Ileum
        iii. Jejenum
    e. **Large intestine:** water and electrolyte absorption.
        i. Ascending colon
        ii. Transverse colong
        iii. Descending colon
        iv. Sigmoid colong
        v. Rectum
        vi. Anus

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24. Hormones:
    a. Anterior Pituitary
        i. **Follicle-stimulating:** follicle maturation; spermatogenesis
        ii. **Luteinizing:** ovulation; testosterone synthesis
        iii. **Adrenocorticotropic (ACTH):** stimulate adrenal cortex to make/secrete glucocorticoids
        iv. **Thyroid:** stimulating: stimulates thyroid to make hormones
        v. **Prolactin:** stimulate milk production/secretion
        vi. **Endorphins:** inhibit perception of pain
        vii. **Growth hormone:** bone/muscle growth
    b. Hypothalamus store in posterior pituitary
        i. **Oxytocin:** uterine contraction and milk secretion
        ii. **Vasopressin (ADH):** water reabsorption in kidneys
    c. Thyroid
        i. **T3 and T4:** metabolic activity
        ii. **Calcitonin**: decrease blood calcium level
    d. **Parathyroid:** increase blood calcium level
    e. Adrenal Cortex
        i. **Glucocorticoids:** increase blood glucose level and decrease protein synthesis
        ii. **Mineralocorticoids:** increase water reabsorption in kidneys