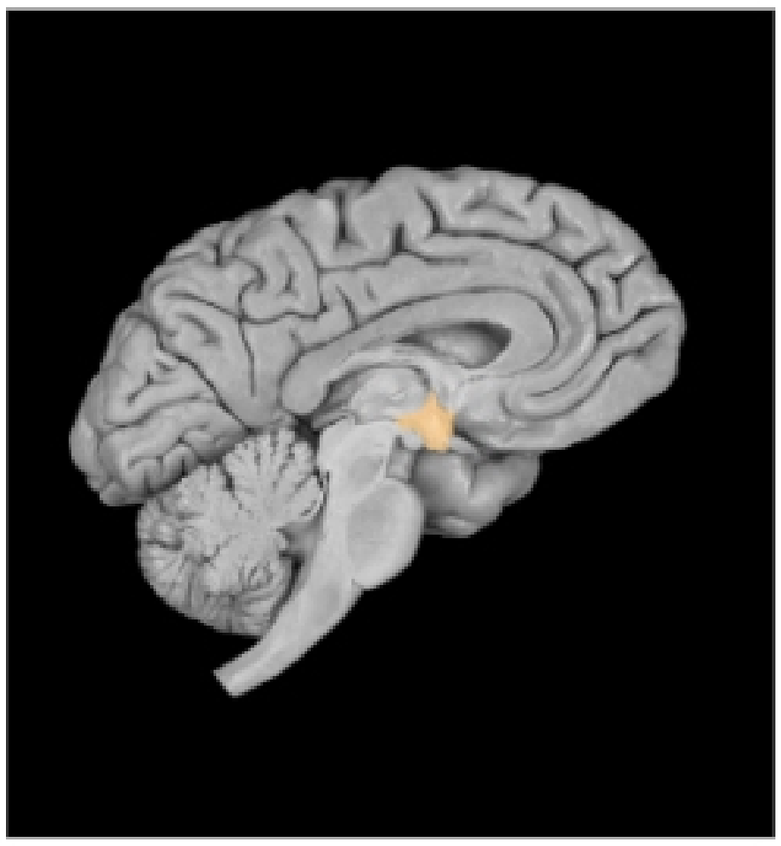
Hormone Actions Worksheet

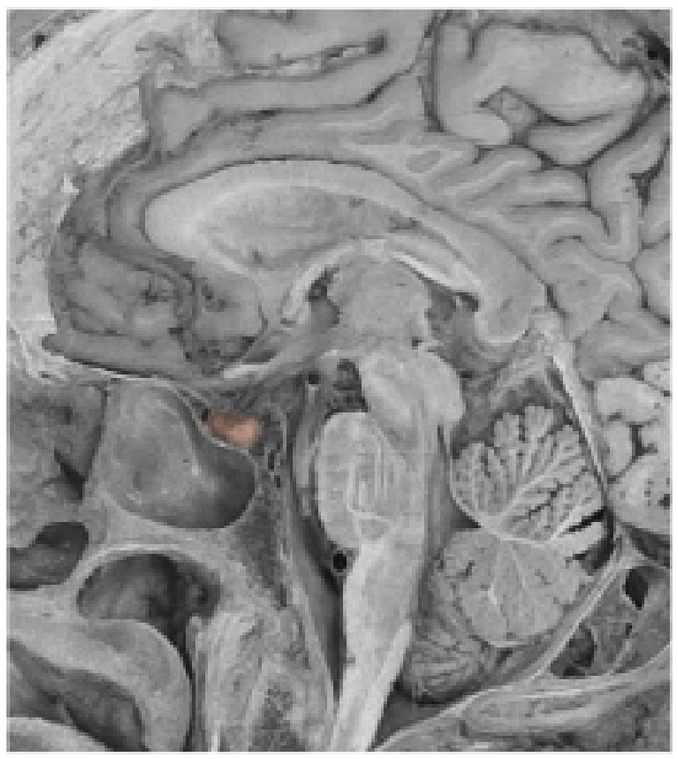
Directions: To work through the questions in the worksheet, refer to information in the Endocrine system of Real Anatomy and the associated chapter in the textbook. Answer the questions that are associated with each image.



1. Describe the principal actions of the hormones produced by the highlighted endocrine gland and the posterior pituitary gland.

_a. oxytocin *stimulates birth contractions and the ejection of milk*

b. anti-diuretic hormone *conserves body water by decreasing urine volume; raises blood pressure by constricting arterioles*



2. Describe the principal actions of the hormones produced by the anterior portion of the highlighted endocrine gland.

_a. human growth hormone *promotes growth of body; stimulates lipolysis and increased blood glucose levels*

b. thyroid stimulating hormone *stimulates the secretion of thyroid hormones*

c. follicle stimulating hormone *in females: promotes development of oocytes and the production of estrogen. In males: promotes production of sperm*

d. leutinizing hormone *in females: promotes ovulation and the formation of the corpus luteum. In males: promotes production of testosterone*

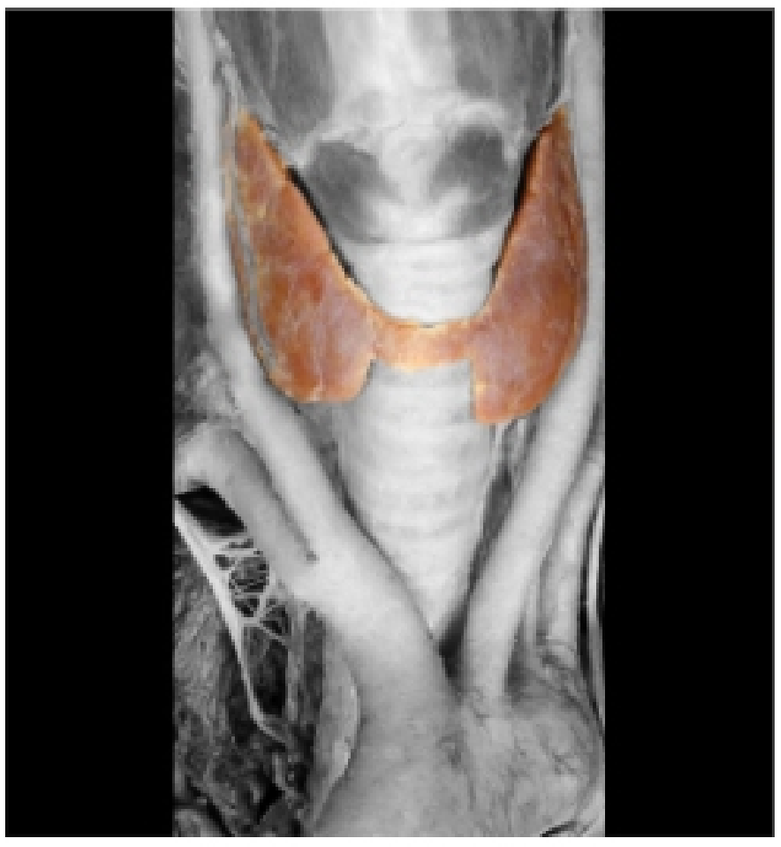
e. prolactin *promotes the production of milk*

f. adrenocorticotropic hormone *stimulates production of cortisol from adrenal cortex.*

g. melanocyte stimulating hormone_ *may cause darkening of skin*

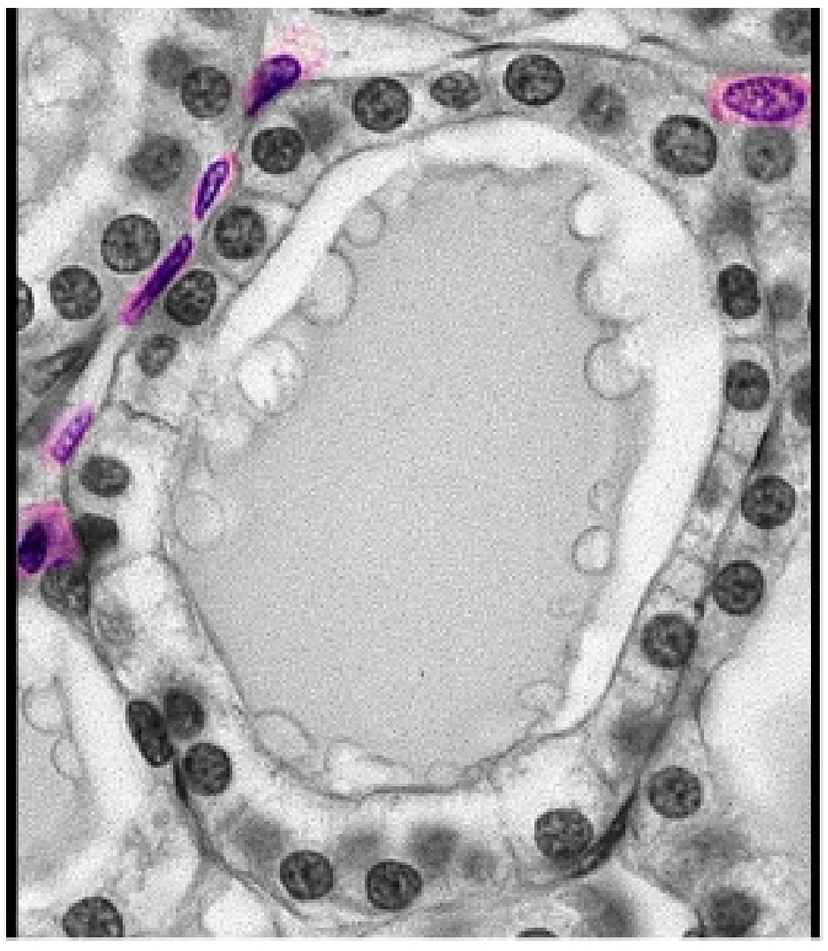
~~3. Describe the principal actions of the hormone produced by the highlighted endocrine gland.~~

~~_melatonin *contributes to the setting of the body's biological clock*~~

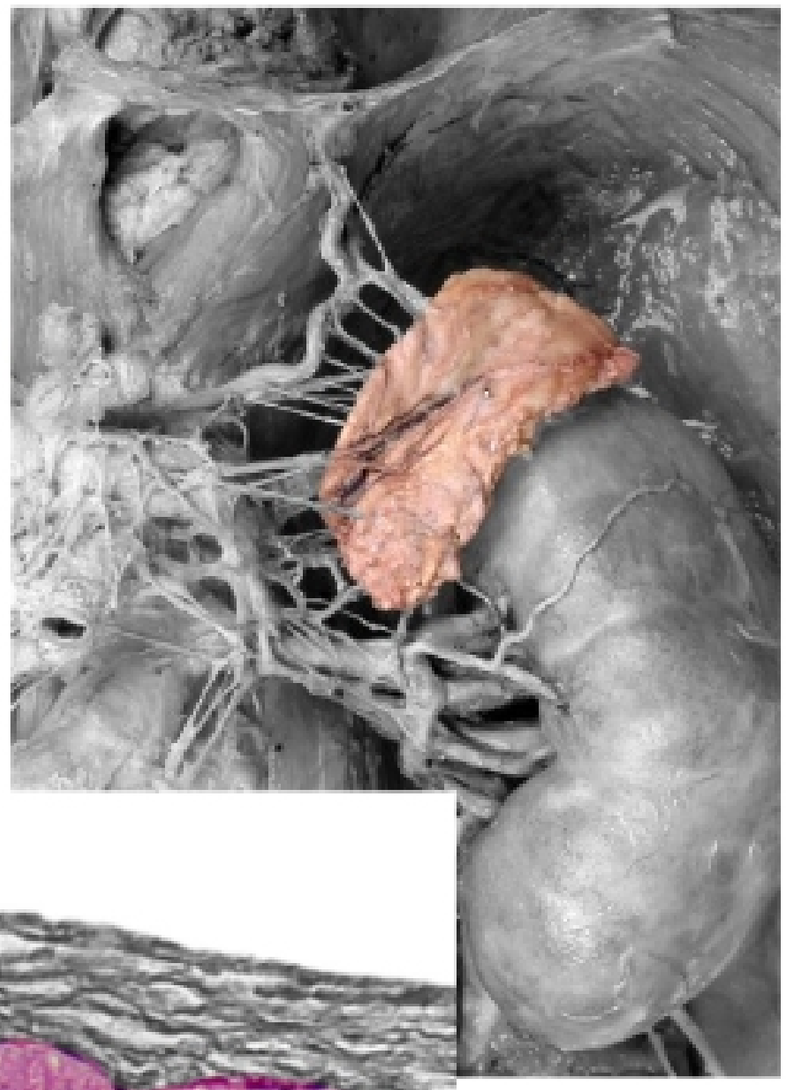


4 .Describe the principal actions of the hormone produced by the endocrine glands that are on the posterior part of the highlighted endocrine gland.
parathyroid hormone *increases blood calcium levels; increases bone resorption; promotes formation of active form of calcitriol*

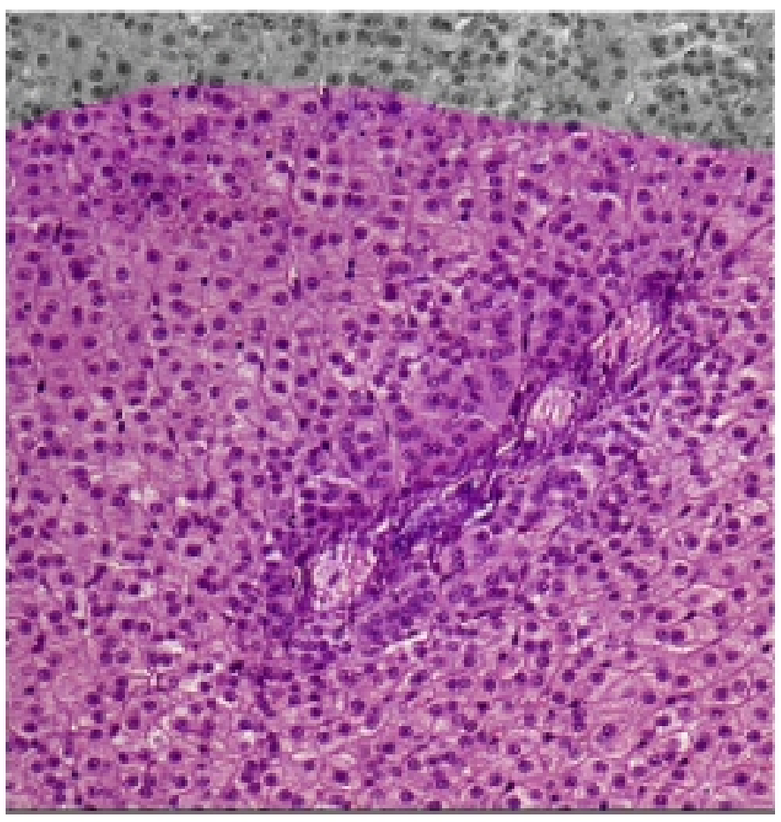
5. Describe the principal actions of the hormones produced by the highlighted cells from the thyroid gland.
thyroid hormones *increase metabolic rate; increase use of glucose and fats for energy use; contributes to normal development of nervous system*



6. Describe the principal actions of the hormone produced by the highlighted cells from the thyroid gland.
calcitonin *lowers blood levels of calcium*



7. Describe the principal actions of the hormones produced by the outer region of the above highlighted endocrine gland.
_a. aldosterol *increase blood levels of sodium and water; reduce blood levels of potassium*
b. cortisol_*increase protein breakdown; stimulates breakdown of lipids; stimulates production of new glucose from fats and proteins; reduces inflammation; depresses immune responses*
~~*c. androgens assist in normal reproductive development*~~



8. Describe the principal actions of the hormones produced by the innermost region of the above highlighted endocrine gland.
a. epinephrine and norepinephrine *increase heart rate and blood flow; increase blood sugar levels; increase breakdown of fats for energy*