

Prenatal Development:

What are the three embryonic germ layers?

What cell types are present in the germ layers?

How do the Anterior Pituitary and Posterior Pituitary develop?

What is sexual differentiation?

- Wolffian Ducts vs. Mullerian Ducts

- Surge vs. Tonic Center

Puberty:

What are the four things puberty is dependent upon?

What neurohormone signals for GnRH to be released? How does it work?

How does puberty occur? (overnight or months)

What determines if a female has reached puberty?

What determines if a male has reached puberty?

How does GnRH drive puberty attainment? How is it different before and after puberty?

Endocrine Glands and Hormones

Paracrine is distant signaling. (True/False)

Autocrine is self-signaling. (True/False)

Endocrine is adjacent signaling. (True/False)

What are the five sources of hormones?

What hormones are synthesized and released by the Anterior Pituitary? What's the main purpose of these hormones?

What hormone(s) are stored in the Posterior Pituitary? What is the main purpose of this/these hormone(s)?

What is the purpose of the Hypothalamo-hypophyseal portal system?

The placenta is a _____ endocrine gland.

What hormones are produced by the placenta?

What hormones are produced in the gonads?

Why is the pineal gland important? What does it do?

What are the key enzymes involved with synthesis of steroid hormones?

How are chemical messages received in the body?

- Protein & Peptide:

- Steroid (SLOW):

- Steroid (FAST):

Hormones that Regulate Reproduction:

Gland	Hormone	Chemical Class	Function
Ovary		Steroid	Mating behavior; secondary sex characteristics; maintenance of female duct system
Ovary(CL)	Progesterone		Maintains pregnancy; mammary growth;

			inhibits myometrial contractions
Testis		Steroid	Male mating behavior; spermatogenesis; maintenance of the male duct system
Ovary and Testis	Inhibin	Protein	
Uterine Endometrium		Lipid	Female: Causes regression of CL; stimulates myometrial contractions; ovulation Male: transport of sperm up FRT
	Melatonin	Biogenic Amine	Controls seasonal reproduction in mare and ewe
Hypothalamus		Peptide	
	Oxytocin	Peptide	
Anterior Pituitary		Glycoprotein	Stimulates follicle growth, estrogen production, spermatogenesis in males
Anterior Pituitary		Glycoprotein	Stimulates ovulation; supports CL formation and progesterone secretion;

			stimulates testosterone synthesis by Leydig cells of the testis
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