Once the blastocyst enters the uterus between day 7-9 of gestation, the inner cell mass differentiates into three germ layers. Which germ layer does the reproductive system develop from?

The ectoderm gives rise to the nervous system, skin, and hair. Which component of the reproductive system develops from this germ layer?

Match the following terms to the correct definition:

 Totipotent Pluripotent Multipotent

1. Have the ability to form a limited range of cells and tissues appropriate to their location (muscle cells for smooth and striated muscle, blood cells for RBC, WBC, and platelets, etc.)
2. Have the ability to form all cell types of the conceptus (STEM CELLS)
3. Have the ability to form several types of all three germ layers (ectoderm, mesoderm, endoderm) but not the whole organism

What organs are derived from the endoderm?

The Posterior Pituitary

1. Only stores oxytocin
2. Developed from the roof of the mouth
3. Uses the hypothalamo-hypopseal portal system
4. Is the neurohypophysis
5. Both A and D

The Anterior Pituitary

1. Produces LH and FSH
2. Develops from the roof of the mouth (gives rise to Rathke’s pouch)
3. Receives chemical messengers via the hypothalamo-hypopseal portal system
4. Is the adenohypophysis
5. All of the above

Match the following terms to the correct definition:

 Autocrine Endocrine Paracrine

1. Distant signaling with use of the circulatory system
2. Signaling to nearby/adjacent cells
3. Self-signaling

The presence of \_\_\_\_\_\_\_\_\_\_\_\_\_ in the brain causes de-feminization of the male hypothalamus.

The hypothalamus surge center has 3 components and is found (only/both) in the (male/female)

The hypothalamus tonic center has 3 components and is found (only/both) in the (male/female)

What is puberty?

1. The ability to accomplish puberty
2. The ability to accomplish copulation
3. The ability to accomplish reproduction successfully
4. The ability to cry

What are some signs of puberty? What does it depend on?

What is the key central event of puberty?

What does puberty begin with?

What are the possible sex chromosomes a spermatozoa can have?

What forms the anterior pituitary lobe (adenohypophysis)?

What forms the posterior pituitary (neurohypophysis)?

What are the 5 things that can affect puberty?

What drives puberty?

Explain Kisspeptin’s relationship with GnRH Neurons:

What are some changes in hypothalamic sensitivity in FEMALES?

Prepubertal female:

Postpubertal female:

What are some changes in hypothalamic sensitivity in MALES?

Prepubertal male:

Postpubertal male: