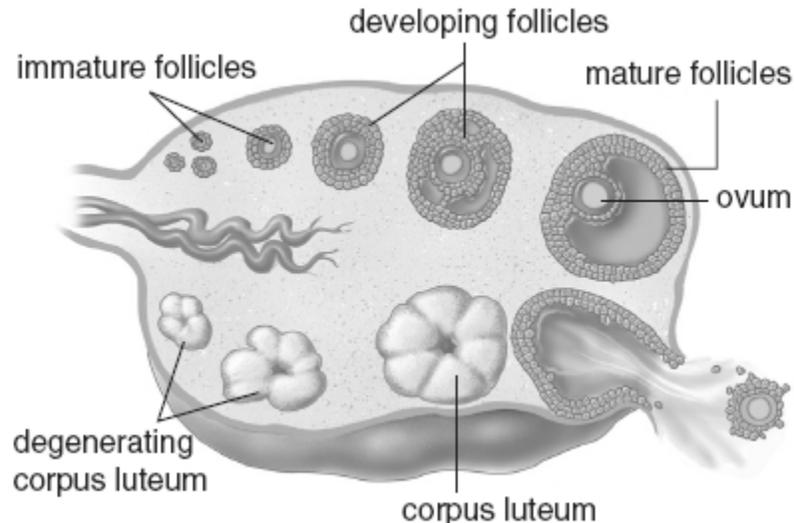


Thought Lab 14.3: Development of the Corpus Luteum Answer Key

Answers to Procedure Question

1. & 2.



3. Your diagram should indicate that this woman is in the follicular phase of her menstrual period. The follicular phase spans the length of time between the first day of menstruation and the moment of ovulation. Prompted by the hypothalamus, the pituitary gland releases follicle-stimulating hormone (FSH). This hormone stimulates the ovary to produce around five to 20 follicles, which bead on the surface. Each follicle houses an immature egg. Typically, only one follicle will mature into an egg, while the others die away.

Answers to Analysis Questions

- To locate the corpus luteum in a tissue sample, one would look near the outer edge for it as it develops from the follicle that has just burst and released the ovum outside of the ovary.
- An adaptive advantage of having a gland that develops and then disappears within a few weeks is that menstrual cycles are monthly, and this allows for reproduction at any time of the year.

Answer to Extension Question

3. Because the corpus luteum is a continuation of follicle development, you should show the process beginning with the immature follicle.