The Egg's Route

How reproductive structures support egg development and release

HAP.8.3 "Describe the female reproductive anatomy and relate structure to egg production and release."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline structures involved in developing or releasing an oocyte, and circle structures that help move it after release. Use your marks to trace how each structure supports a different step.

From Follicle to Uterus

1. Imagine following a single developing egg through one menstrual cycle. The two ovaries sit on opposite sides of the uterus. Within each ovary are many tiny sacs called follicles. Each follicle contains an immature egg cell, called an oocyte, surrounded by cells that help it grow. Usually, one follicle develops farther than the others during a cycle. Its fluid-filled space enlarges as the oocyte matures. The ovary is therefore more than a storage site: its follicles support egg development before any egg is released. The uterus, although nearby, does not grow eggs inside its lining.

2. Near the middle of a typical cycle, a rise in luteinizing hormone helps trigger ovulation. The mature follicle breaks open at the surface of the ovary and releases its oocyte. The oocyte does not travel through a tunnel from the ovary into the uterine tube. Instead, it enters the space near the ovary. Fingerlike ends of the uterine tube, called fimbriae, help sweep it toward the tube's opening. This arrangement matters: releasing an oocyte from an ovary and bringing it into a tube are separate steps, carried out by different structures.

3. Once inside the uterine tube, tiny moving hairs called cilia and contractions of its muscular wall help move the oocyte toward the uterus. Fertilization, if it happens, usually occurs in the tube, not in the ovary. The uterus has a thick muscular wall and an inner lining that can support an embryo after implantation; it does not produce or release oocytes. The cervix is the narrow lower part of the uterus, and the vagina is a passage to the outside of the body. Neither structure develops eggs. Following these parts in order separates egg production, egg release, transport, and possible implantation.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does a follicle help an ovary do more than store oocytes?

2. Why is ovulation not the same event as an oocyte entering the uterine tube?

3. Which features of the uterine tube help move an oocyte, and where do they move it?

4. A student says the uterus releases eggs because it has a lining. How would you correct this claim?

3 YOUR TURN

Your own words

Suppose a follicle develops normally, but the fimbriae cannot sweep an oocyte toward the uterine tube. In four sentences, explain what can still happen at the ovary, what may fail after release, and why the uterine lining cannot solve the problem.

ANSWER KEY

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PART 1 · READ AND MARK

Underline structures involved in developing or releasing an oocyte, and circle structures that help move it after release. Use your marks to trace how each structure supports a different step. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does a follicle help an ovary do more than store oocytes?	**Cells surrounding an oocyte help it grow as the follicle develops.**
2	Why is ovulation not the same event as an oocyte entering the uterine tube?	**Ovulation releases the oocyte from a follicle at the ovary's surface. Fimbriae then help sweep it toward the tube's opening.**
3	Which features of the uterine tube help move an oocyte, and where do they move it?	**Cilia and contractions of the tube's muscular wall help move the oocyte toward the uterus.**
4	A student says the uterus releases eggs because it has a lining. How would you correct this claim?	**Ovarian follicles develop and release oocytes. The uterine lining can support an embryo after implantation, but it does not release eggs.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The follicle can still support the oocyte as it develops. The follicle may break open and release the oocyte near the ovary. Without the fimbriae sweeping it toward the tube, the oocyte may not enter the tube. The uterine lining cannot move the oocyte into the tube because it is in a different part of the reproductive system.

Accept answers that distinguish release at the ovary from entry into the uterine tube. Students should not claim that the ovary connects directly to the tube or that the uterine lining transports oocytes.