

The Reproductive System: Female Anatomy

A reproductive system lab activity using
Visible Body's Human Anatomy Atlas

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IN-LAB EXERCISES

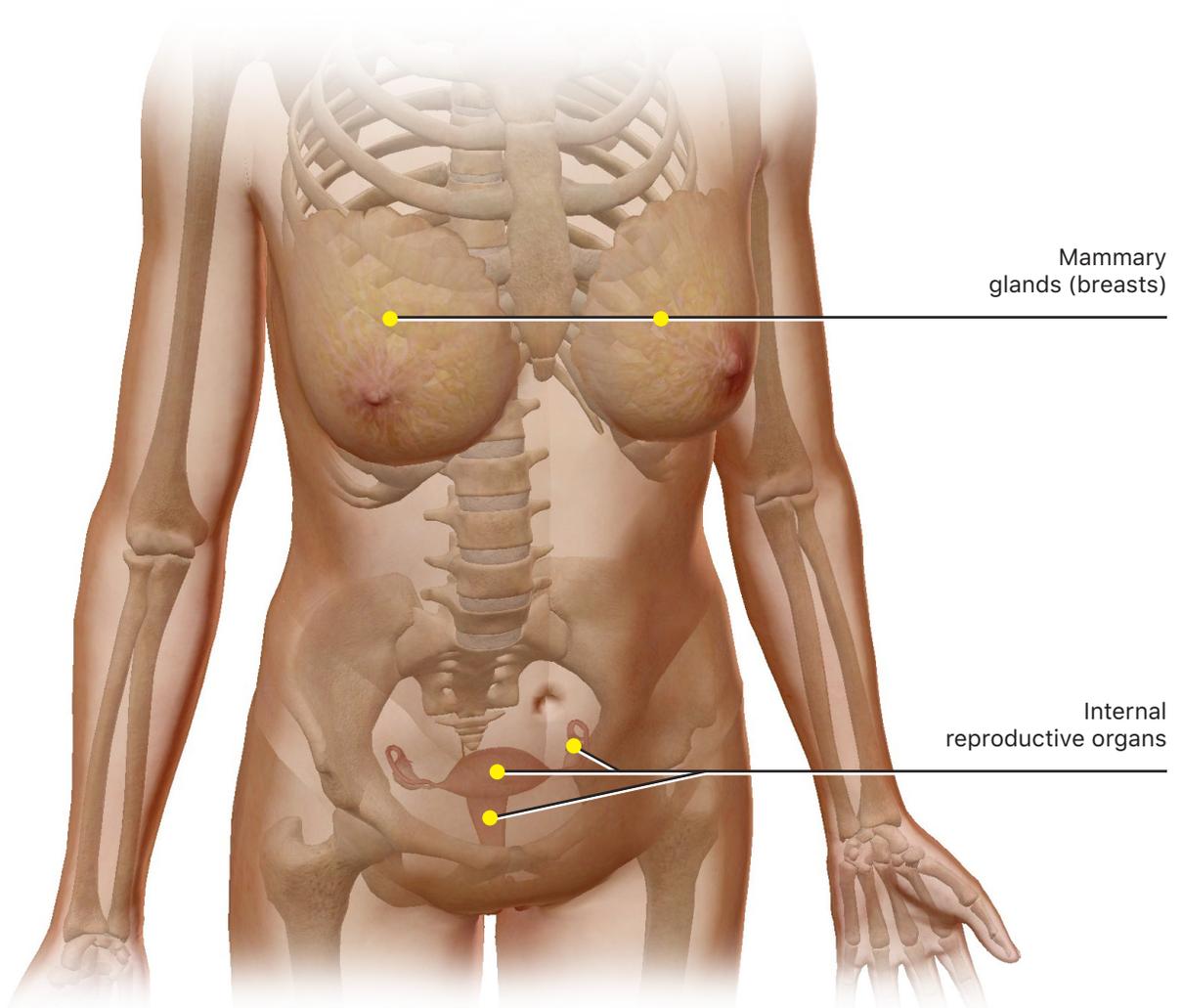
Use the following modules in Visible Body's Human Anatomy Atlas app to guide your exploration of the reproductive system. You can manipulate the images to see different views and isolate each structure. Be sure to select the book icon under the structure name to read information specific to that structure.

As you explore the modules, locate the organs and related structures on any additional charts, models, or specimen available.

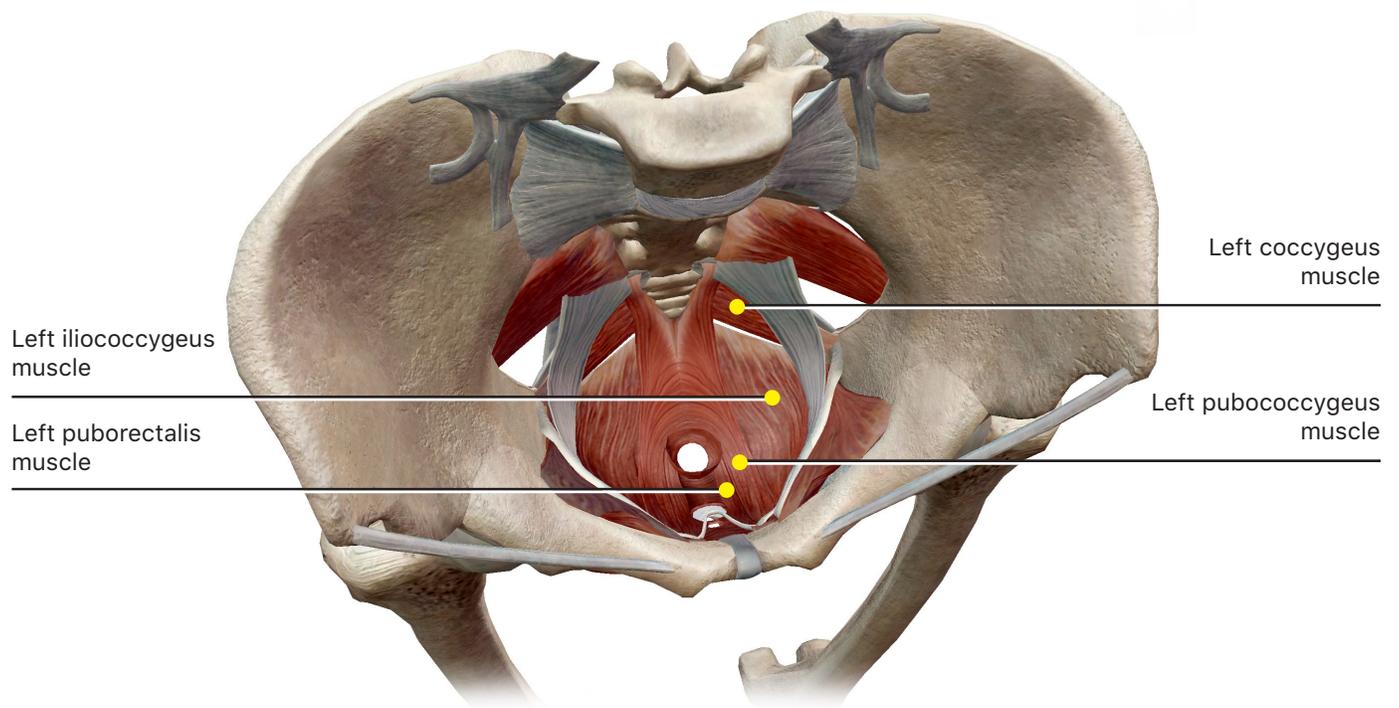
Make the following observations, and note that you are responsible for **all bold terms and diagram labels**

I. FEMALE REPRODUCTIVE SYSTEM OVERVIEW

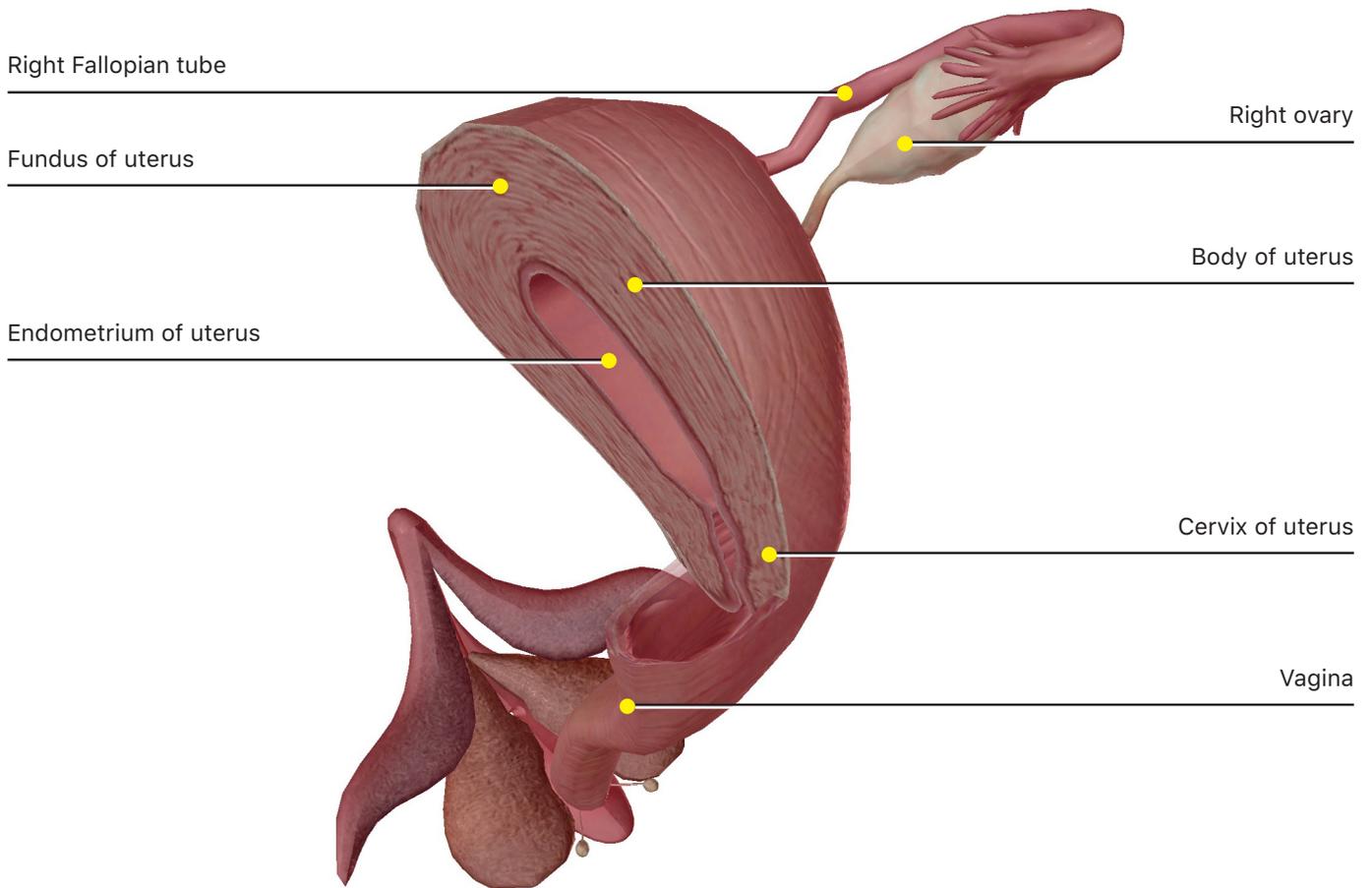
To Start: Select the Views menu at the top of the screen, then select Systems. Scroll down to the Reproductive system at the bottom and choose on Show More to display all of the reproductive system views.



1. Scroll down to 13. Reproductive System (F). In this view, with the skin faded, you can see the paired **mammary glands (breasts)** and the internal organs inside the **pelvis**. Choose the skeletal system icon on the left (skull) to hide the bones. This gives you a view of the **internal reproductive organs** within the pelvis. Select the skull icon again to see how these organs are protected by the bones of the pelvis.

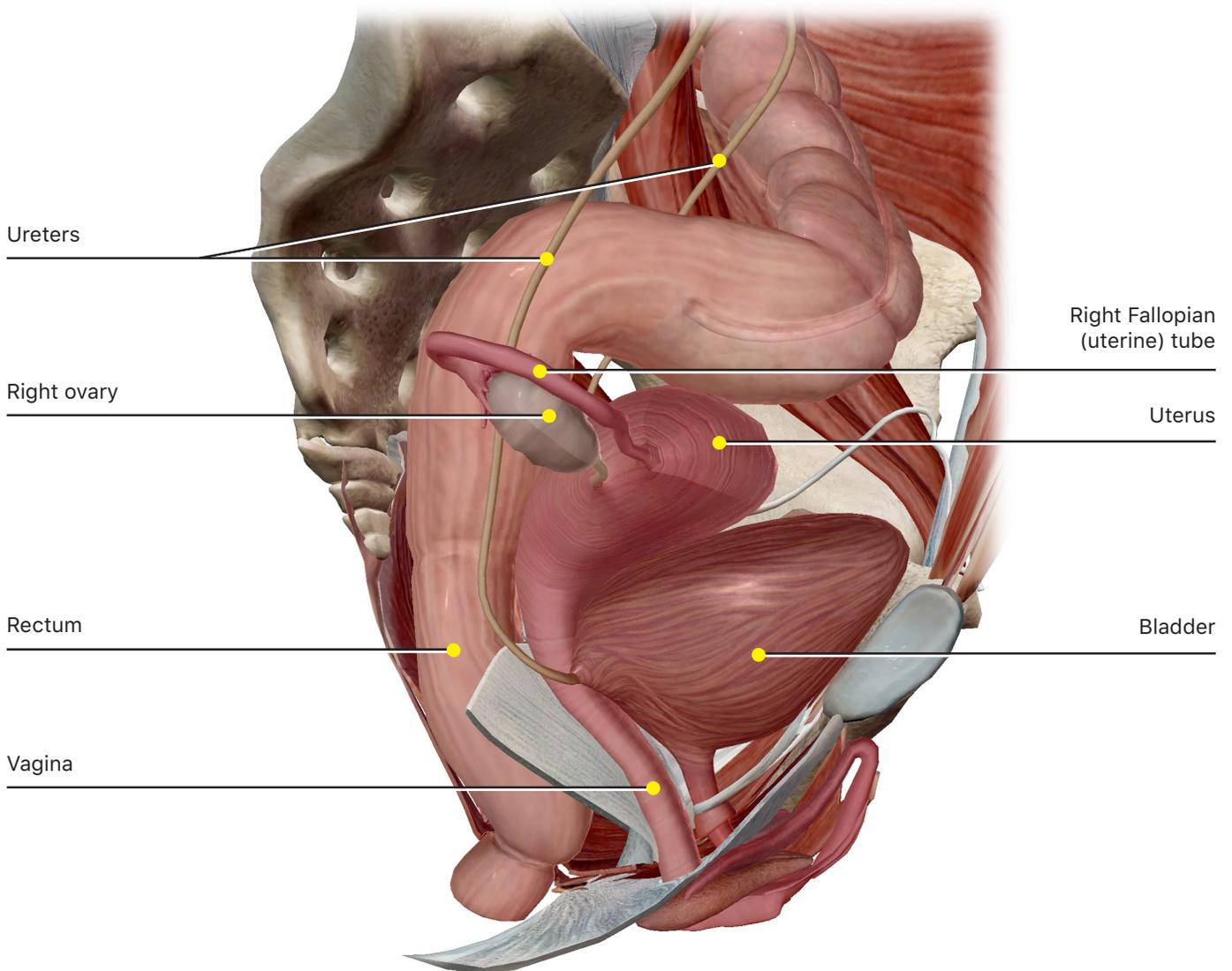


2. Return to the Systems view, and in the reproductive system section, select Show More. Navigate to 16. Pelvic Floor. Observe the muscles that make up the **floor of the pelvis** (levator ani, coccygeus, associated connective tissue). These will support the weight of the developing fetus during pregnancy.



3. Navigate to 17. Uterus. Observe the following parts of the uterus in this cross section: **fundus**, **body**, **cervix**, and **endometrium**. The endometrium is where the embryo implants and develops during pregnancy.

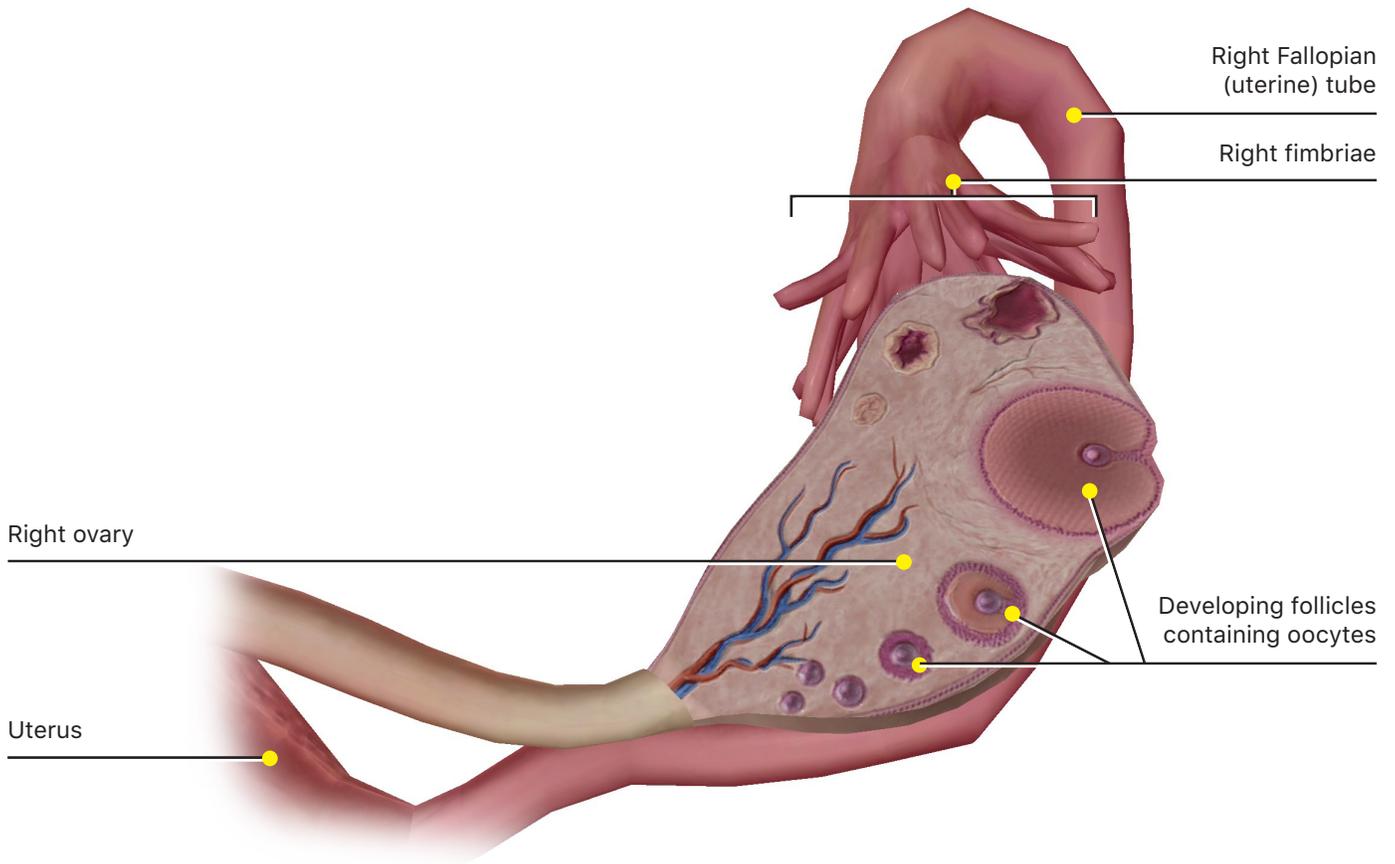
a. What is produced by the cervix?



4. Navigate to 18. Location of Organs. Locate the rectum, the bladder, and the ureters; note their position with respect to the uterus. Choose the urinary system from the systems list on the left (the kidney icon) and deselect it. Now you can see the primary organs of the female reproductive system. Locate the following: **ovaries, uterus, uterine tubes, and vagina.**

[TIME TO PRACTICE!](#)

[GO TO THE REPRODUCTIVE SYSTEM QUIZZES AND TAKE QUIZ 5. OVERVIEW, REPRO. \(F\).](#)



5. Select 20. Ovary section.

a. Locate the following structures and state the role of each one in reproduction.

i. **Uterus**

ii. **Uterine tubes**

iii. **Fimbriae**

iv. **Ovarian ligaments**

b. Observe the section of the ovary. On the right is a series of developing **follicles** containing developing **oocytes**. The largest one is about to burst and will release its oocyte, to be taken up by the fimbriae of the uterine tubes. The remaining empty follicle collapses and releases hormones that support pregnancy for a short time. Read the definition of the ovary and answer the following questions.

- i. What are the female sex cells (gametes) called?

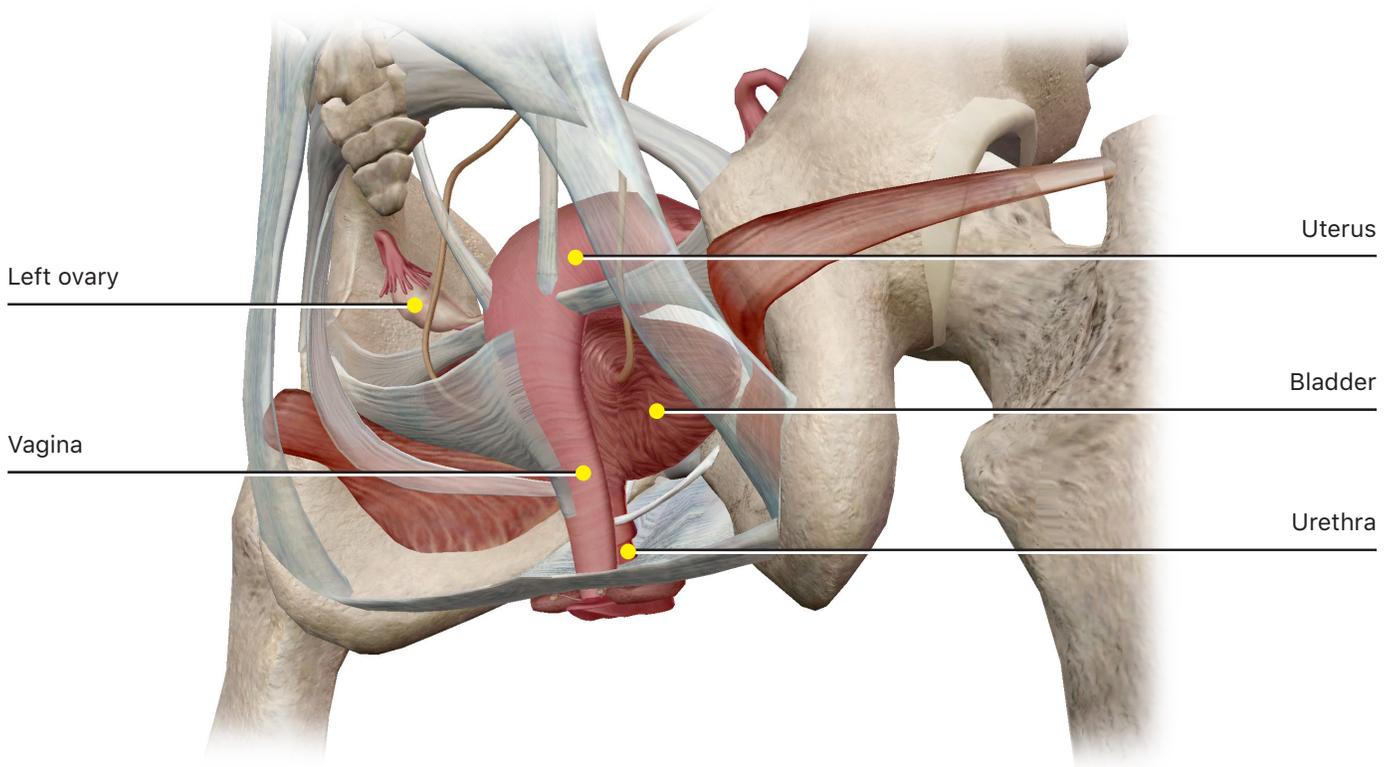
- ii. What percentage of the genetic information passed to the fertilized egg comes from the egg (oocyte)?

- iii. Which two important hormones are produced by the ovaries?

- iv. What are the roles of these hormones?

- v. Define ovulation.

- vi. Where do oocytes go after they are ovulated?



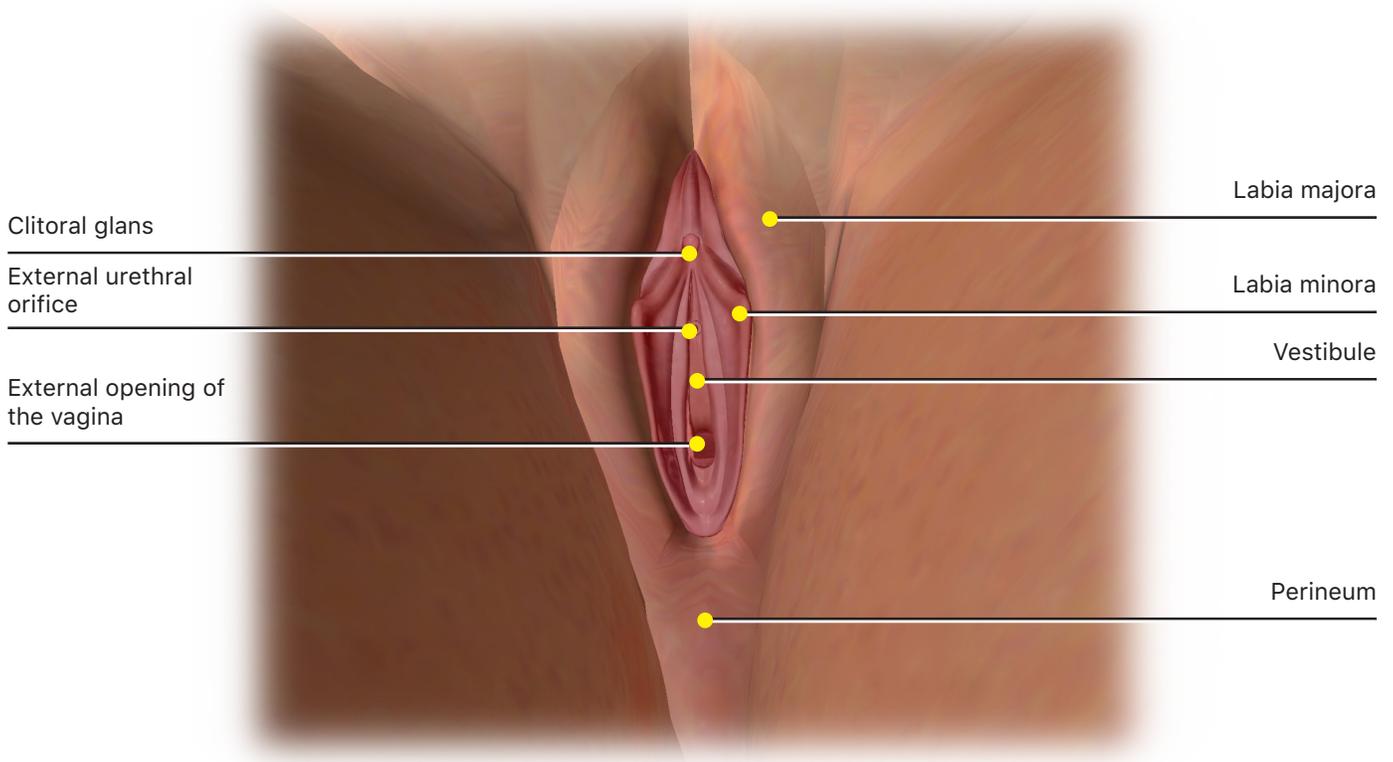
6. Select 21. Vagina and Urethra. Locate the vagina and select it, then read the definition.

a. The vagina extends from the uterus to the _____.

b. List the three main functions of the vagina.

c. The wall of the vagina contains _____ and is lined with _____.

d. Deselect the skeletal system by choosing the skull icon in the list on the left. Rotate the model slightly in order to locate the urethra and note how it also ends at the vestibule (vulva).



7. Select 22. External Genitalia (F).

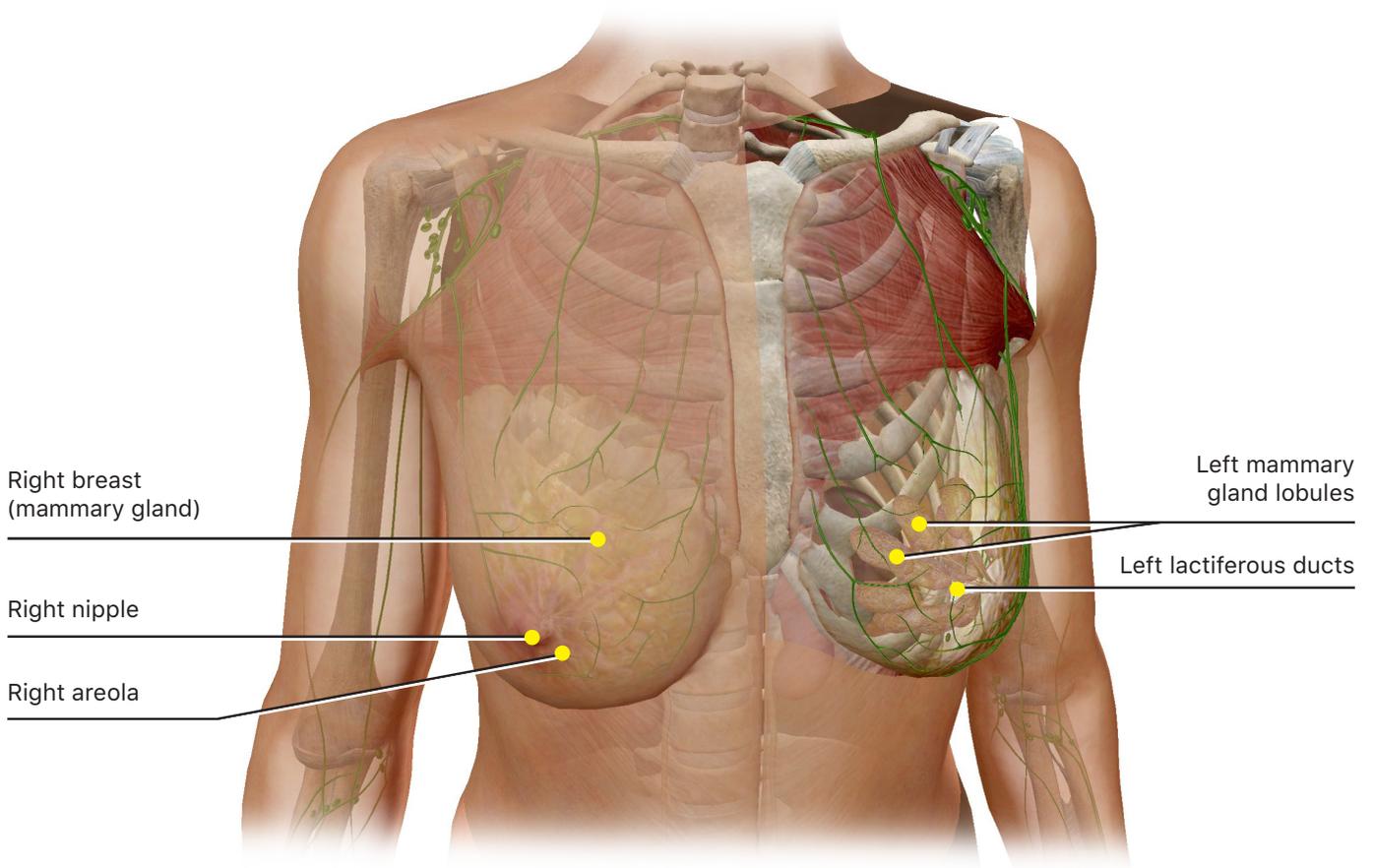
a. Locate and name the female genitalia.

b. Choose the vestibule then locate the **external urethral orifice** and the **external opening of the vagina**.

c. Locate the **prepuce**. What male structure is analogous to the female prepuce?

d. Select each of the labia majora and note that they do not fully surround the labia minora. What is the name of the region of skin that borders the labia minora posteriorly?

[TIME TO PRACTICE!](#)
[GO TO THE REPRODUCTIVE SYSTEM QUIZZES AND TAKE QUIZZES 6. EXTERNAL GENITALIA \(F\) AND 7. INTERNAL GENITALIA \(F\).](#)



8. Select 23. Breasts.

a. Select either of the **breasts** (mammary glands) and read the definition. Mammary glands are modified _____ glands.

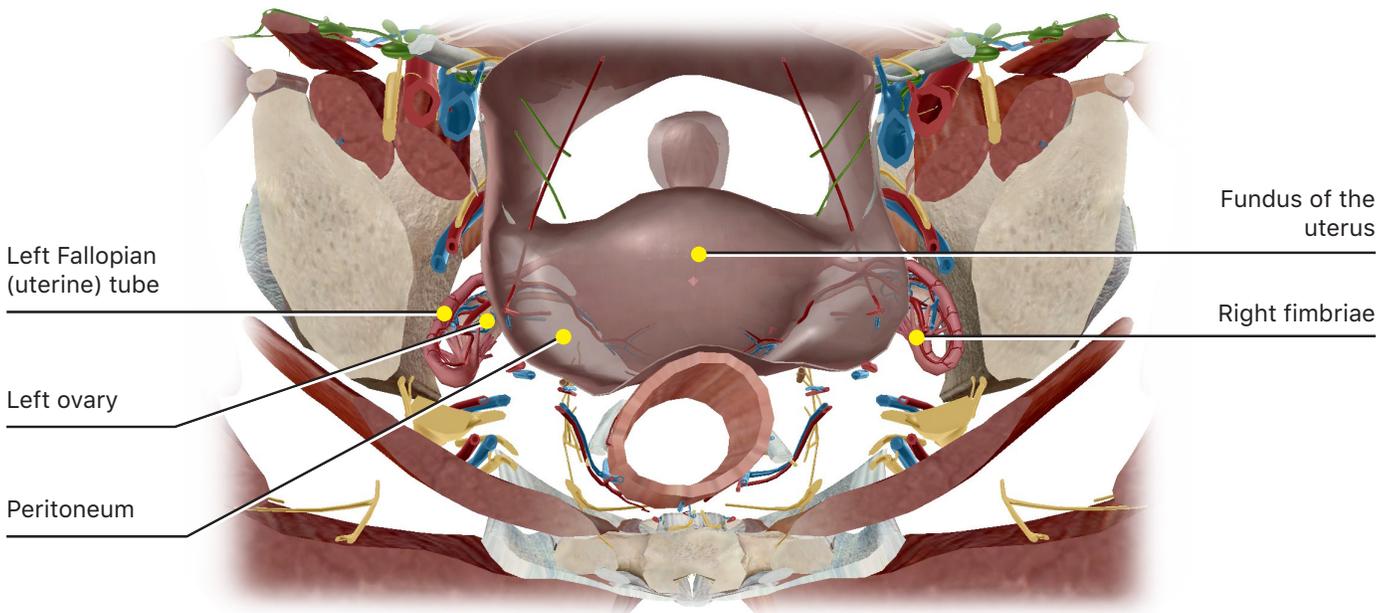
b. Choose the skin icon (head) in the list to the left, and locate the **nipple** and the **areola** in the center of each breast.

c. Refresh the model and then select either breast. Hide the breast to reveal the lobules and ducts inside. Select any of the lobules and read the definition. What do these lobules produce in lactating females?

d. These lobules open into _____ that carry milk to the _____. Select any of the lactiferous ducts and zoom in to see how they converge in the nipple. Breastfeeding causes milk to be ejected from the nipple.

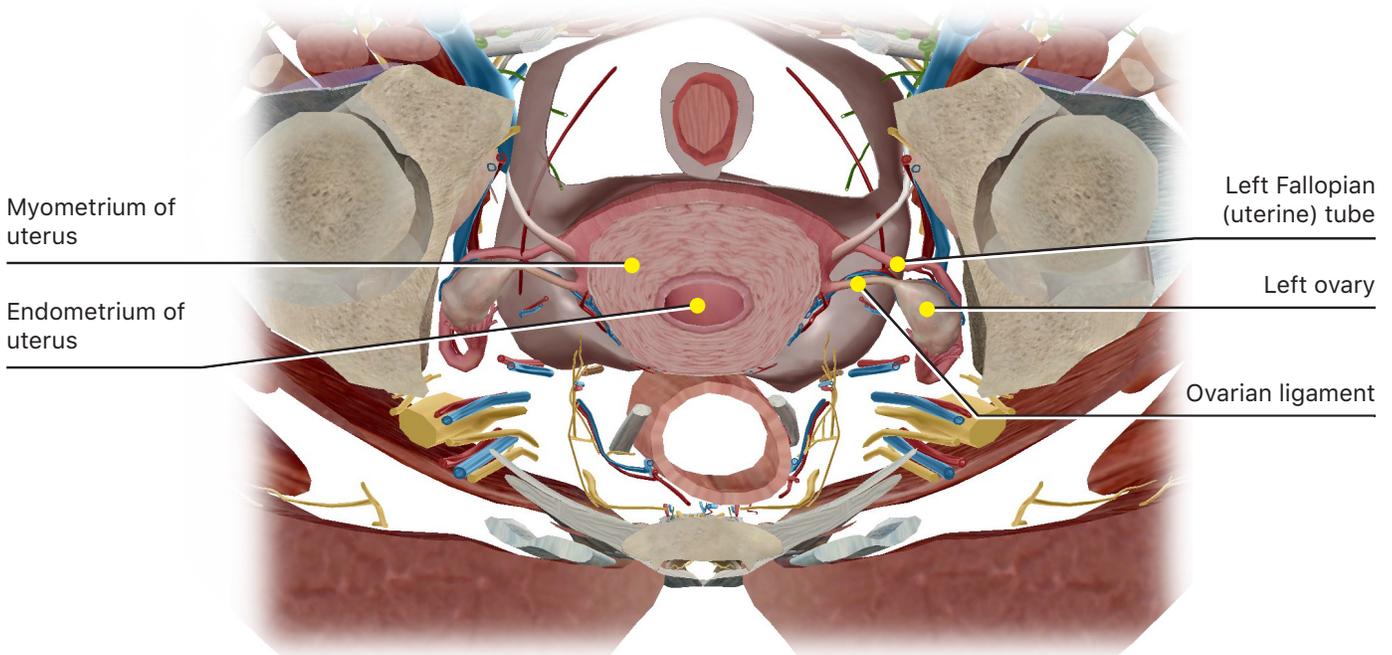
II. PELVIS CROSS SECTION

In the Cross Section tab, scroll down to the Pelvis (Axial) section and select 4. Pelvis S05 (F). Use the Flip button in order to view the section from the other side.

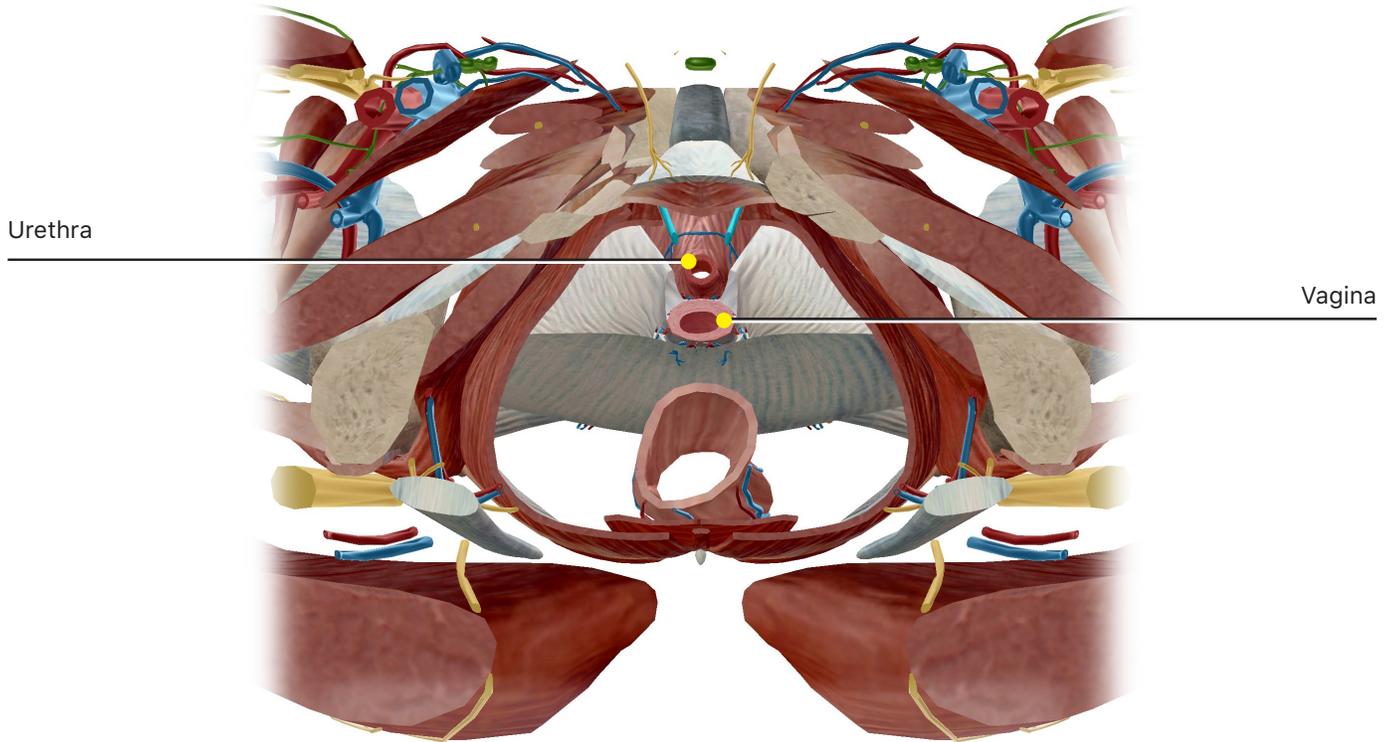


You can see the **fundus** of the **uterus** through the **peritoneum**. Locate the **uterine tubes** and the **ovaries**. Locate the **fimbriae** surrounding each ovary. Now flip the section over again to view the section from beneath. Locate the **myometrium** (muscular inner layer) and the **endometrium**.

You can also see the underside of the **ovaries** in this view.



Choose the forward arrow to see the next section, 5. Pelvis (Coccyx) (F). Locate the **cervix** as it protrudes into the **vagina** slightly.



Choose the forward arrow to see the next section, 6. Pelvis (Symphysis) (F). Locate the **vagina**, visible beneath the **urethra**.

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PUTTING IT ALL TOGETHER

Trace the path of a mature oocyte from ovulation to implantation.

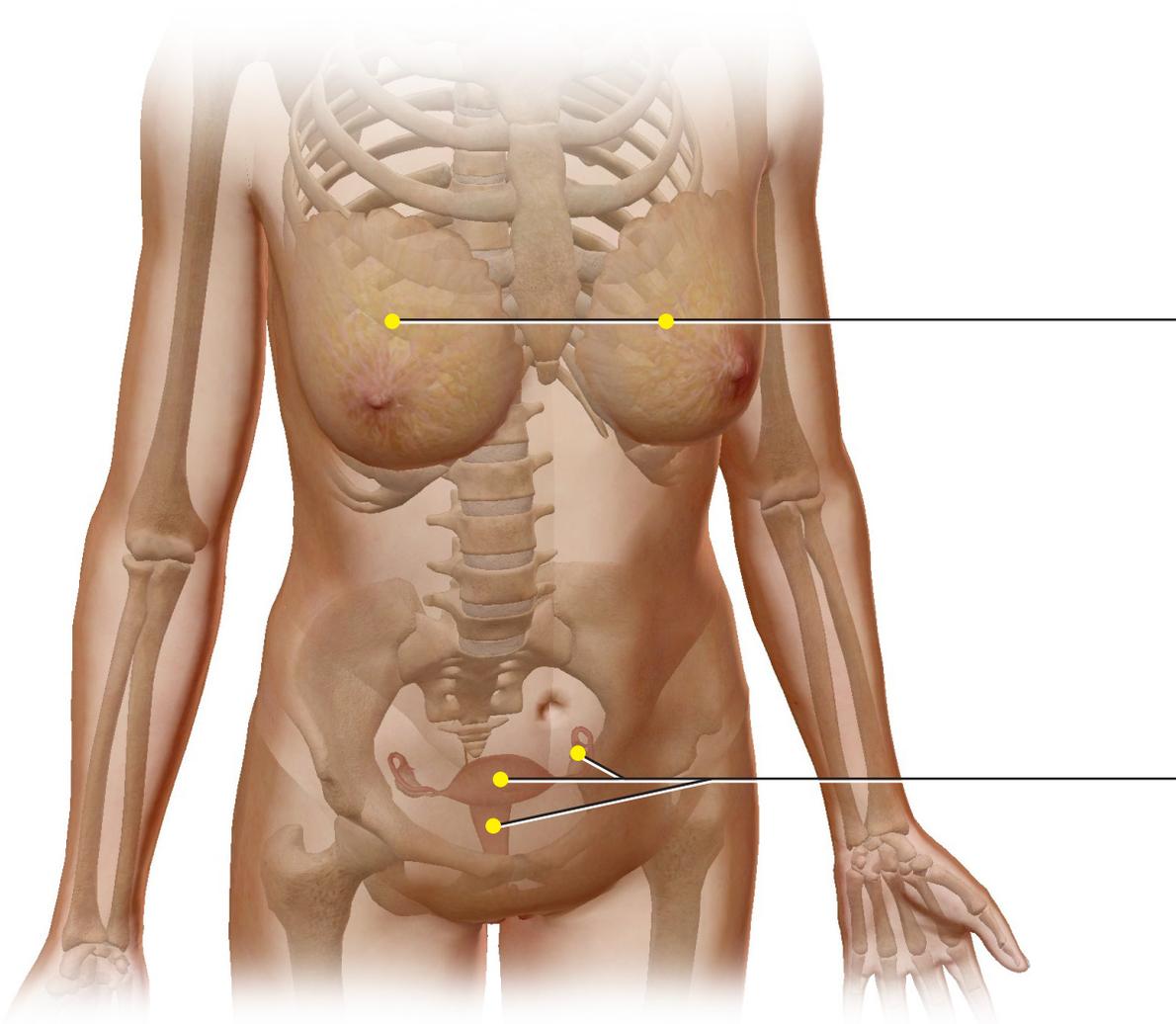
Explain how the uterine lining and the mammary glands support the developing baby



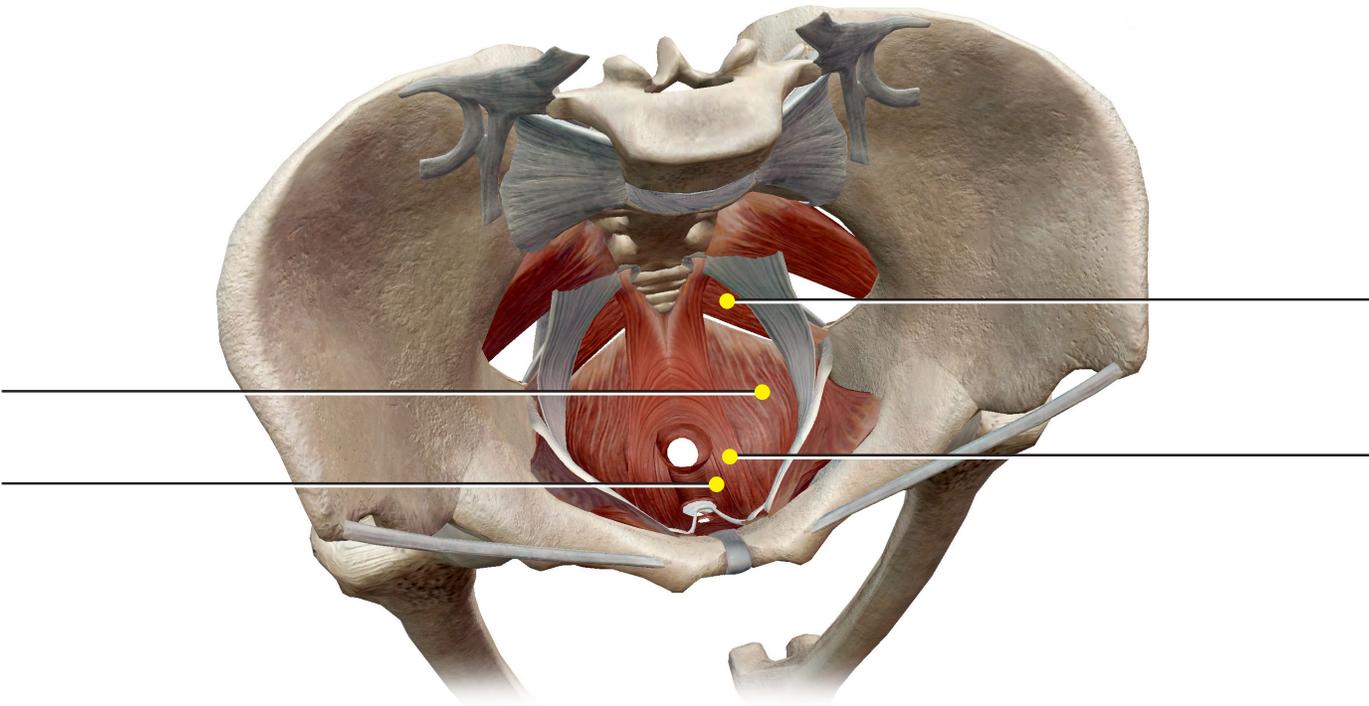
Student Practice

Label all the structures on the following images.

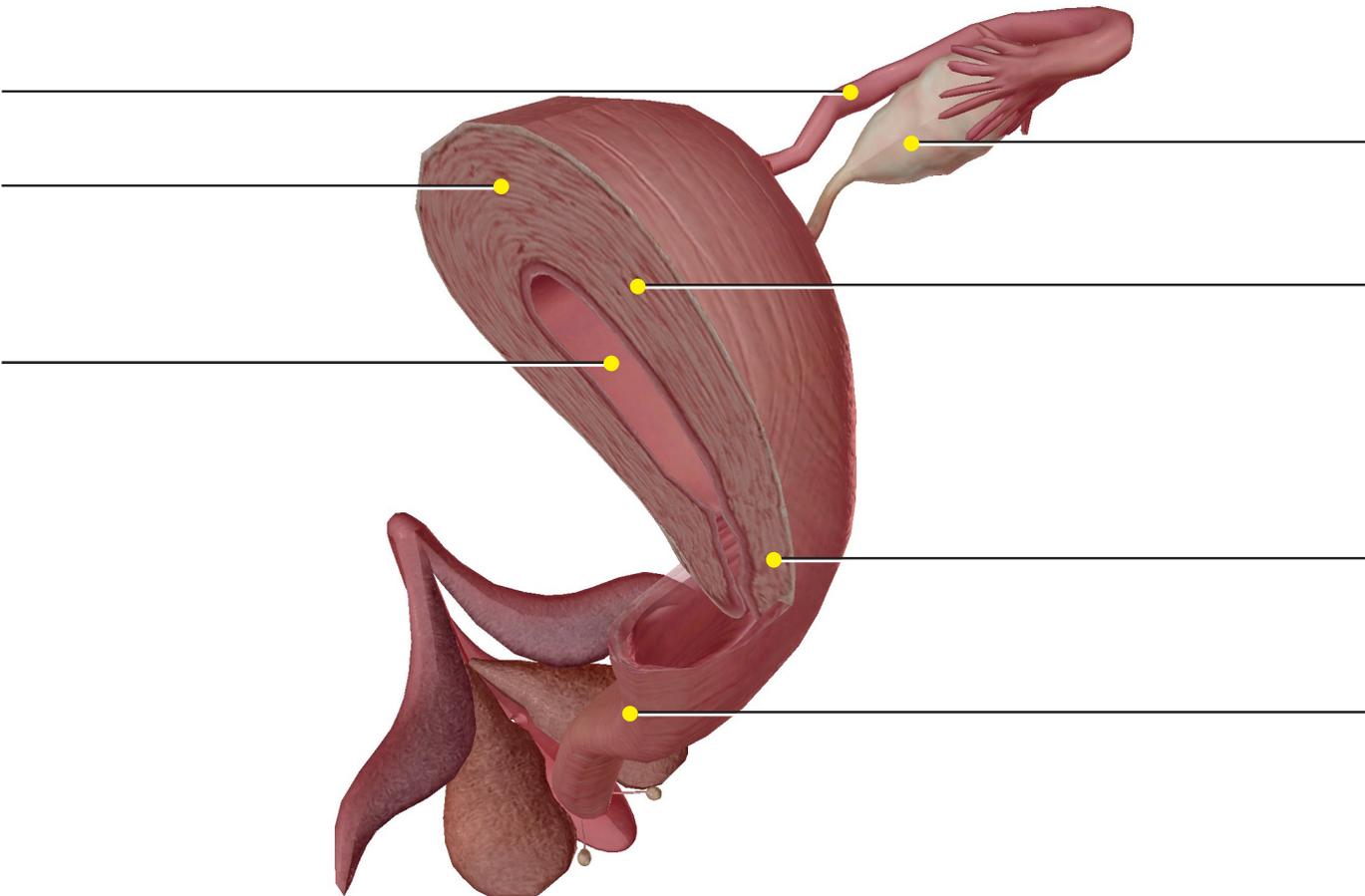
Source: Reproductive System Views: View 13: Reproductive System (F)



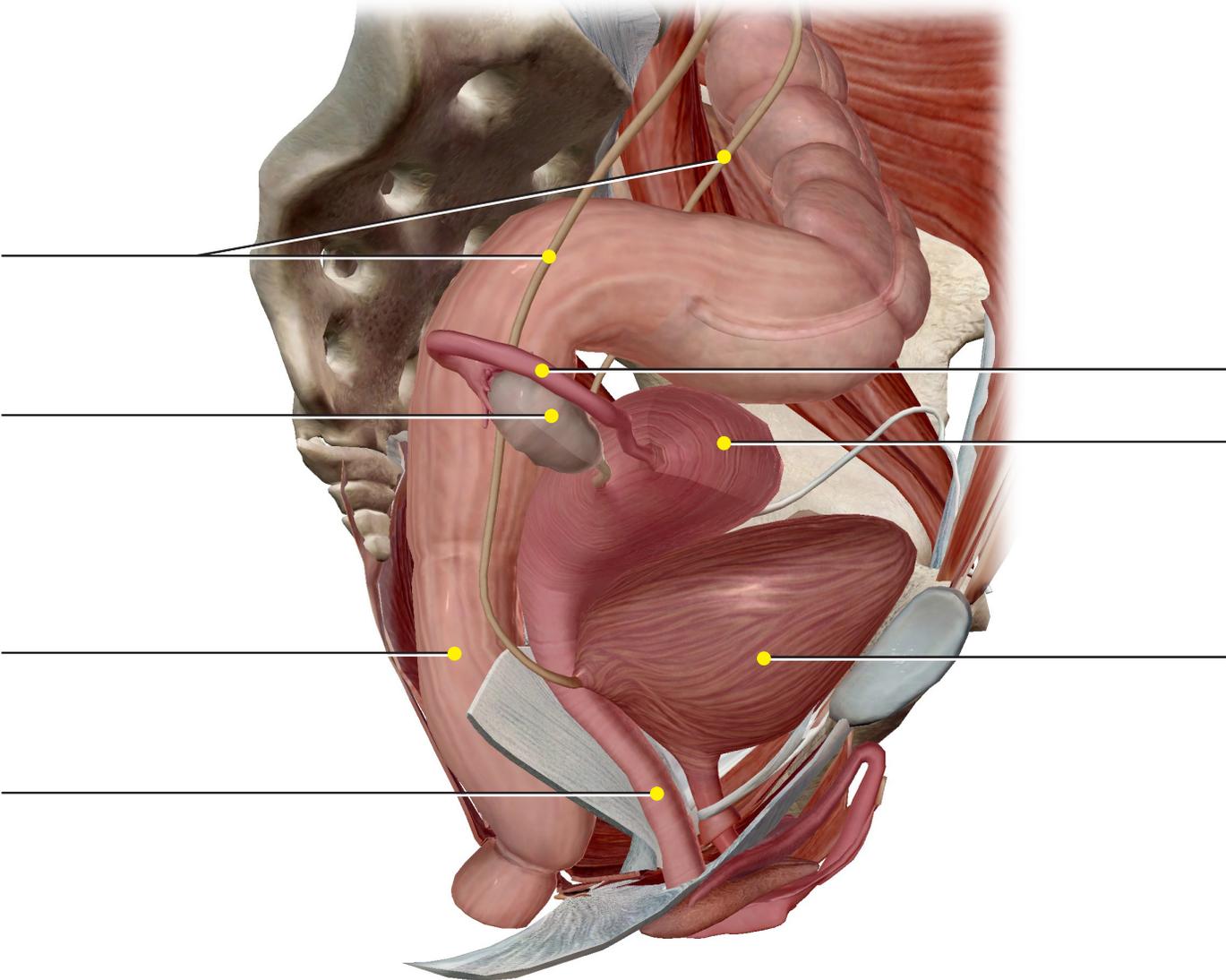
Source: Reproductive System Views: View 16: Pelvic Floor



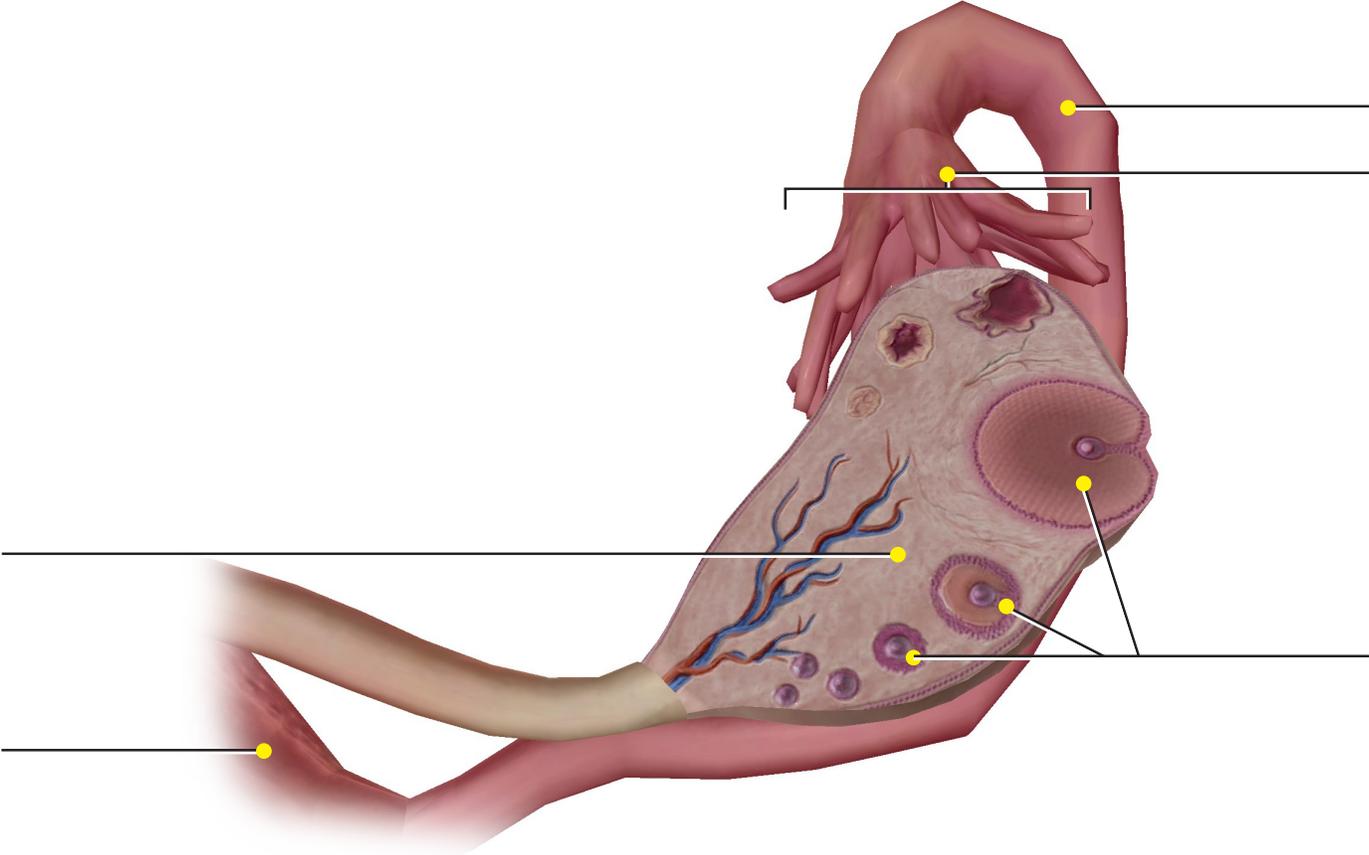
Source: Reproductive System Views: View 17: Uterus



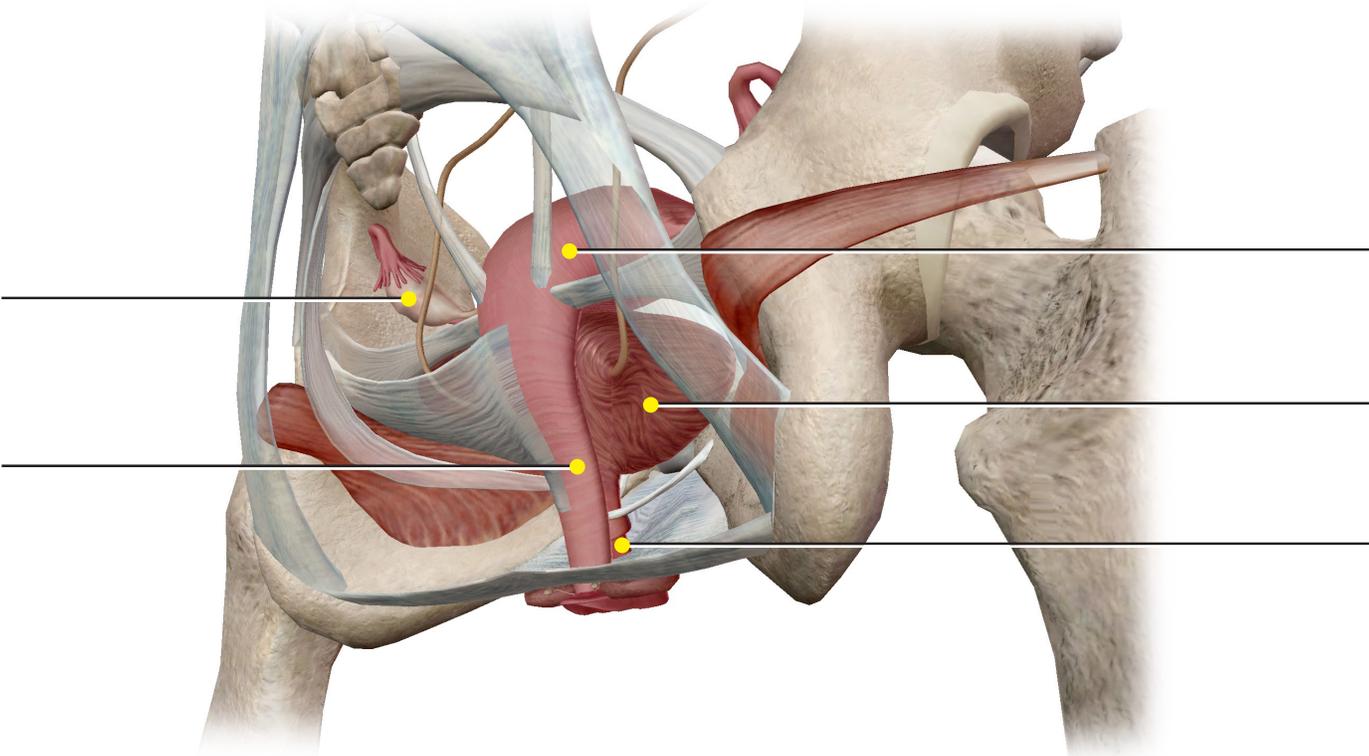
Source: Reproductive System Views: View 18: Location of Organs



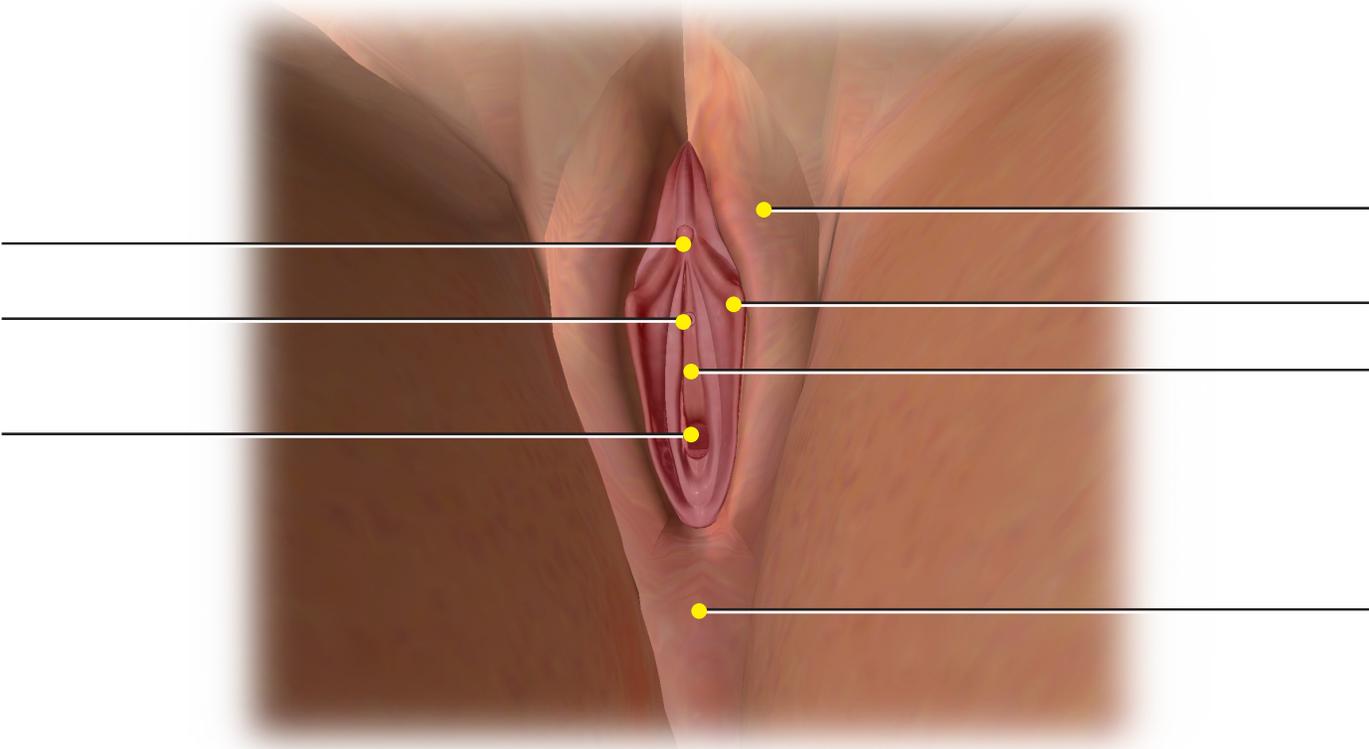
Source: Reproductive System Views: View 20: Ovary Section



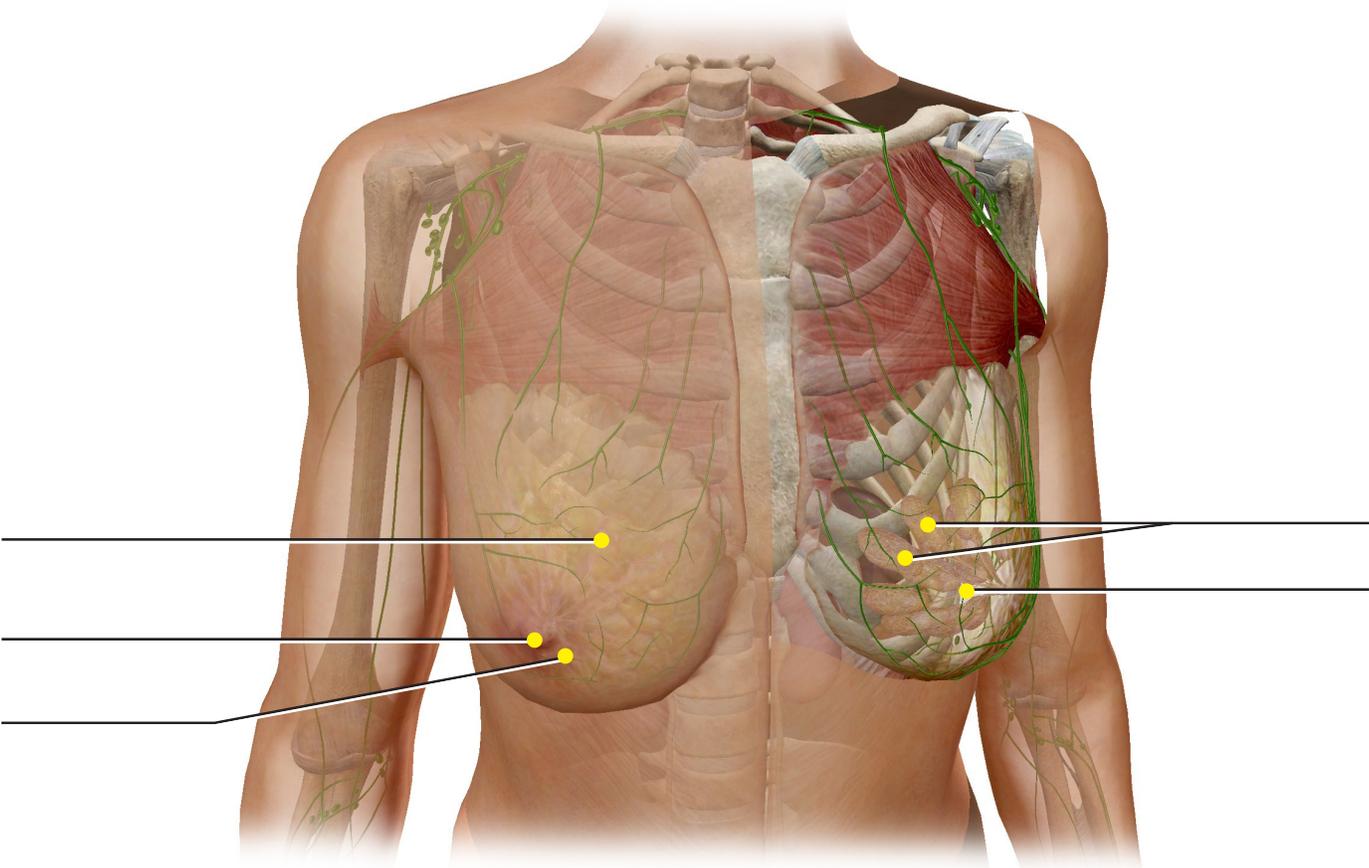
Source: Reproductive System Views: View 21: Vagina and Urethra



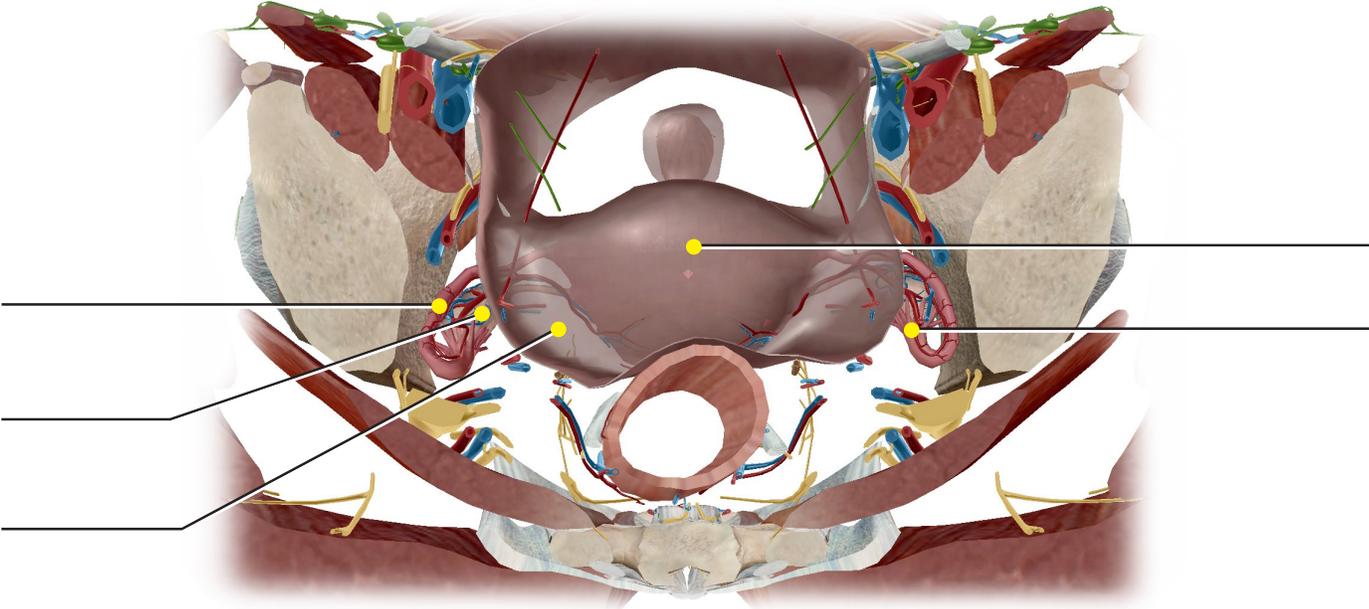
Source: Reproductive System Views: View 22: External Genitalia



Source: Reproductive System Views: View 23: Breasts



Source: Pelvis (Axial) Cross Sections: View 4: Pelvis (S05) (F)



Source: Pelvis (Axial) Cross Sections: View 4: Pelvis (S05) (F) (Flipped)

