

VISIBLE  BODY®

The Reproductive System: Female Anatomy

A reproductive system lab activity using Visible Body Suite

**Blythe Nilson, Associate Professor of Biology,
University of British Columbia Okanagan**

IN-LAB EXERCISES

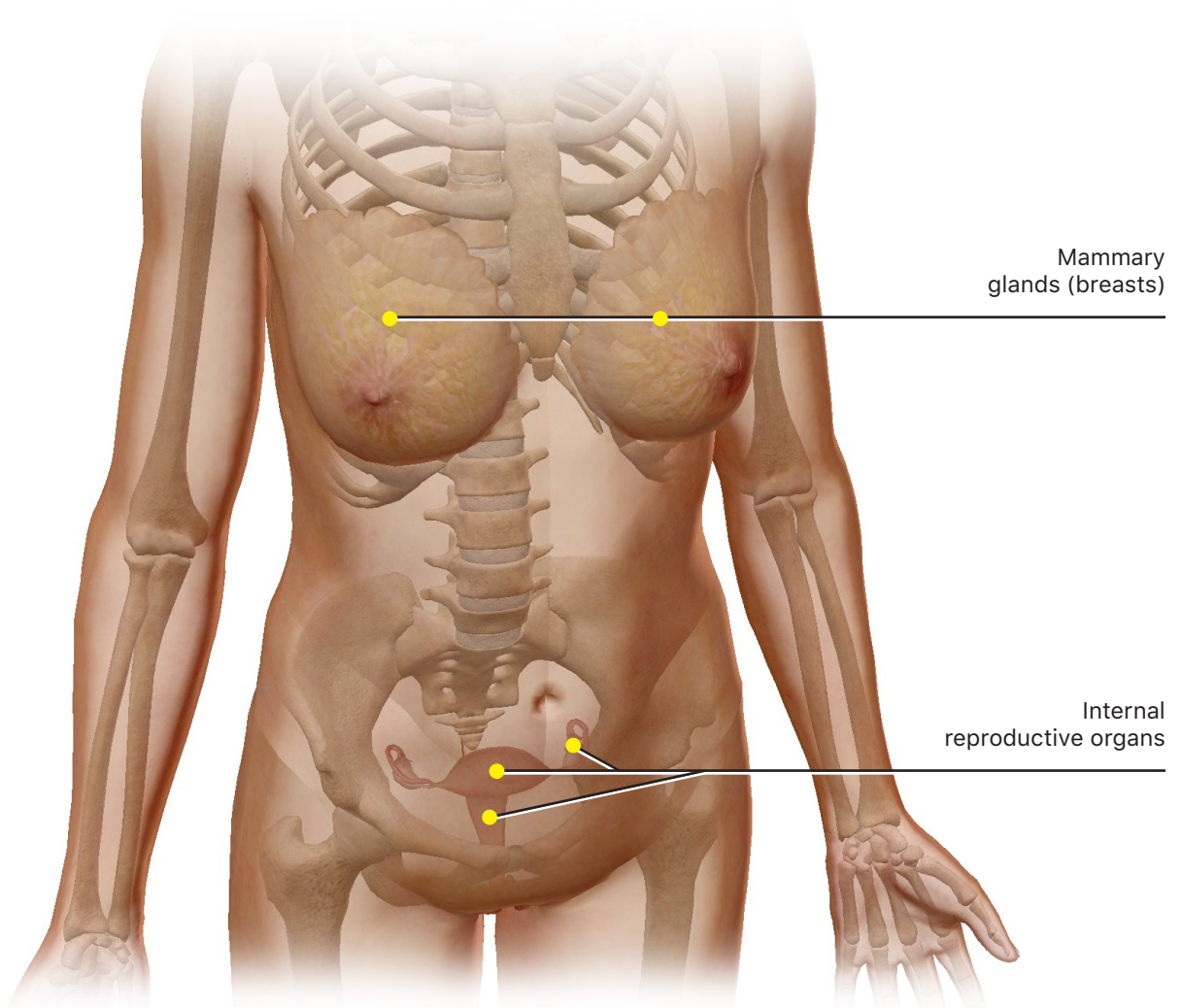
Open Visible Body Suite. Search for and select each of the Reproductive System Views noted in the exercises below. You can manipulate the images to see different views and isolate each structure. Be sure to select the book icon under the structure name to read information specific to that structure.

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

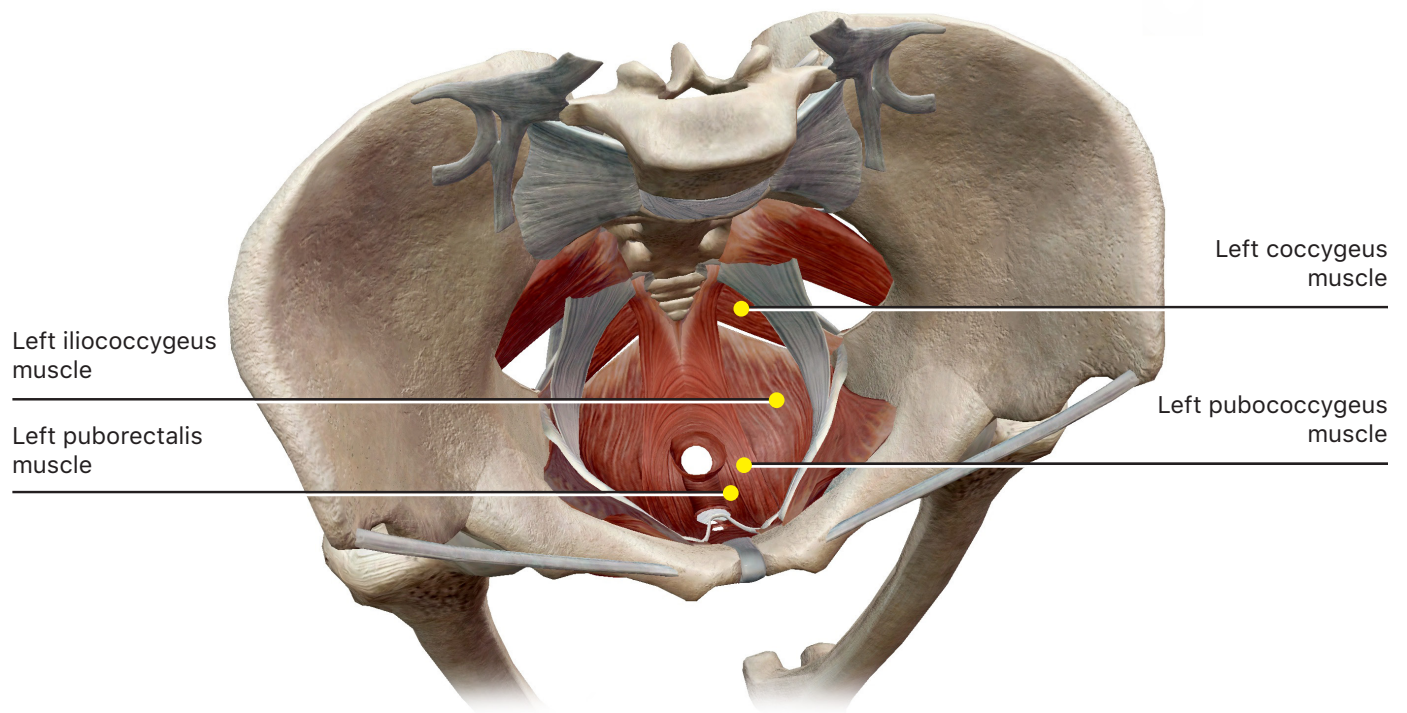
Make the following observations, and note that you are responsible for **all bold terms and diagram labels.**

A. Female Reproductive System Overview

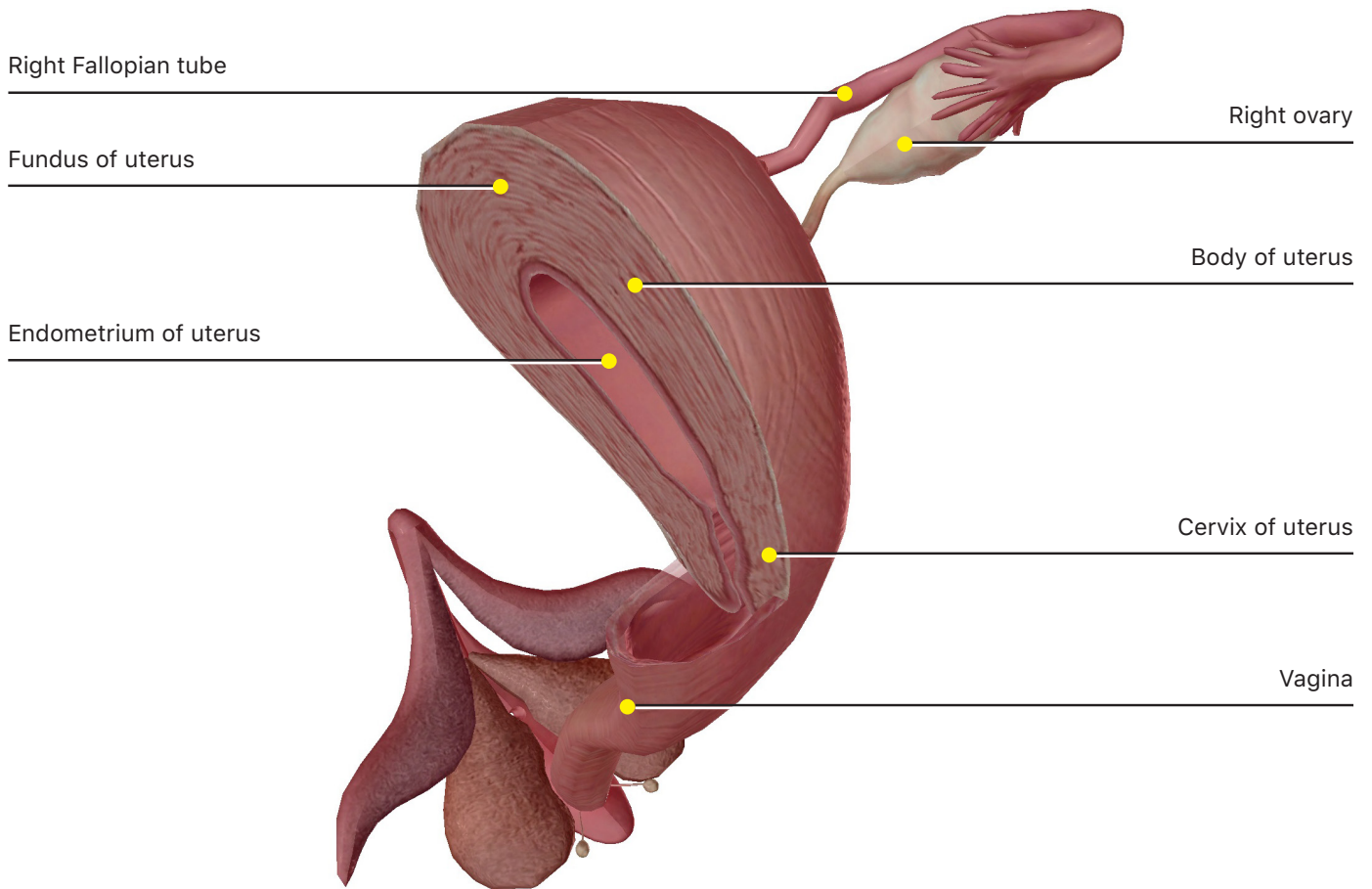
Search for and select each of the Reproductive System Views noted in the exercises below.



1. Open the Reproductive System View "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**. In the Systems Tray on the left side of the screen, deselect the skeletal system icon (the skull) to hide the bones from the view. This gives you a view of the **internal reproductive organs** within the pelvis. Select the skeletal system icon again to see how these organs are protected by the bones of the pelvis.

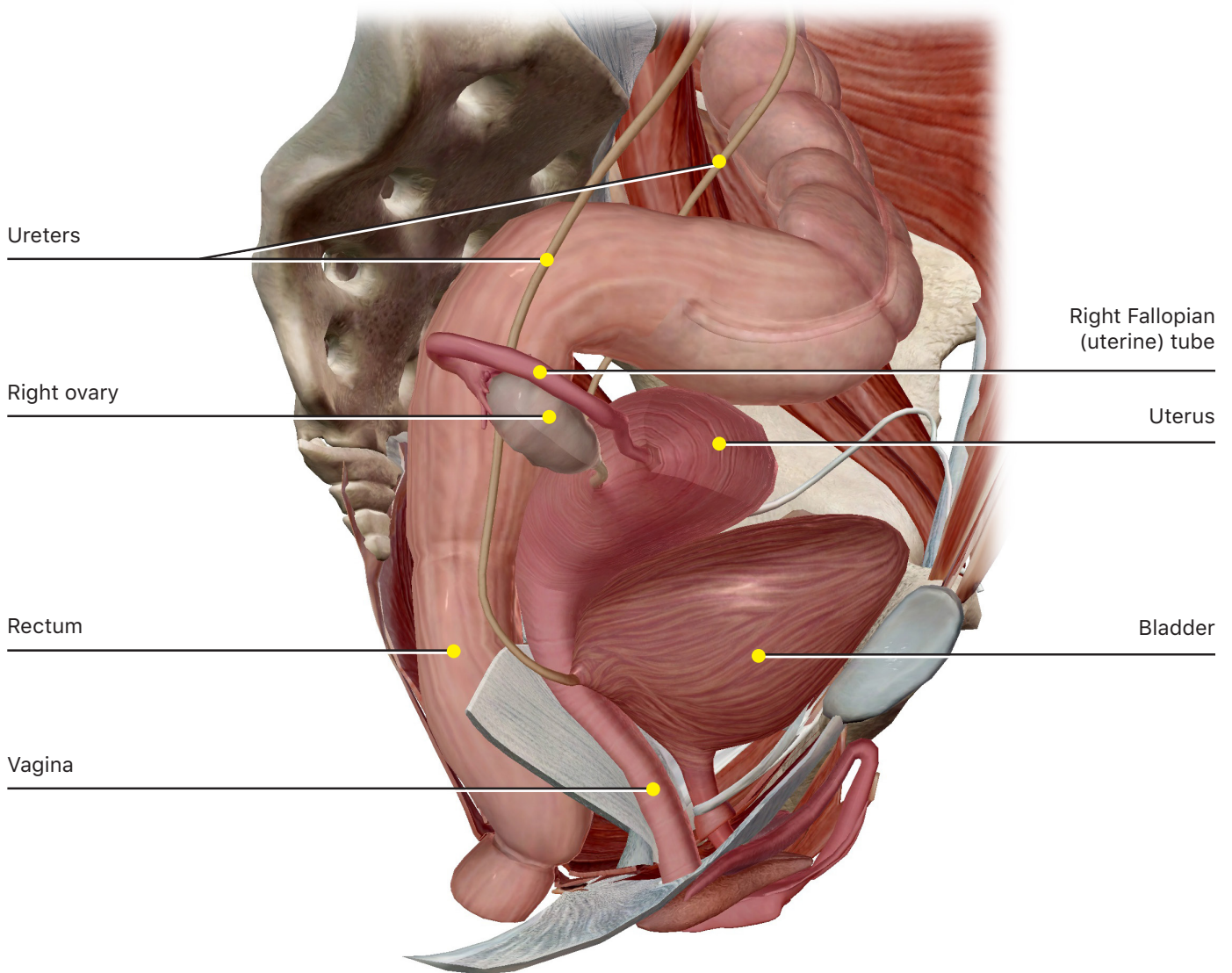


2. Open the Reproductive System View "Pelvic Floor (F)." Observe the muscles that make up the **floor of the pelvis** (levator ani, coccygeus, associated connective tissue). These will support the weight of the developing fetus during pregnancy.



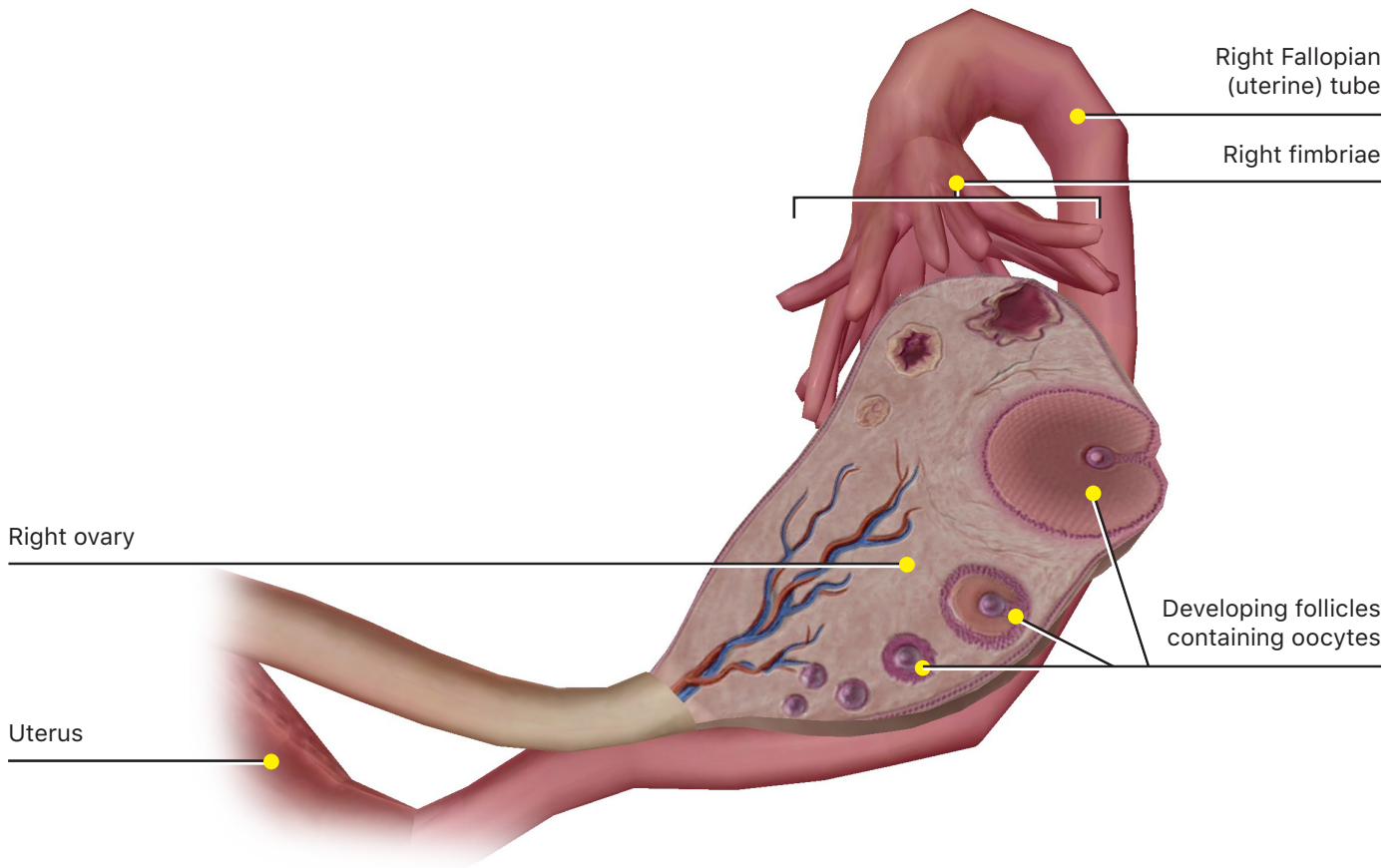
3. Open the Reproductive System View "Internal Genitalia (F)." Observe the following parts of the uterus in this cross section: **fundus**, **body**, **cervix**, and **endometrium**. The endometrium is where the embryo implants and develops during pregnancy.

a. What is produced by the cervix?



4. Open the Reproductive System View "Location of Organs (F)." Locate the rectum, the bladder, and the ureters; note their position with respect to the uterus. In the Systems Tray, deselect the urinary system icon (the kidney) to hide the urinary structures from the view. Now you can see the primary organs of the female reproductive system. Locate the following: **ovaries, uterus, uterine tubes**, and **vagina**.

[TIME TO PRACTICE!](#)
[SEARCH FOR AND TAKE THE FOLLOWING REPRODUCTIVE SYSTEM QUIZ:](#)
[OVERVIEW, REPRO. \(F\)](#)



5. Open the Reproductive System View "Ovary Section (F)."

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

i. **Uterus**

ii. **Uterine tubes**

iii. **Fimbriae**

iv. **Ovarian ligaments**

a. 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?

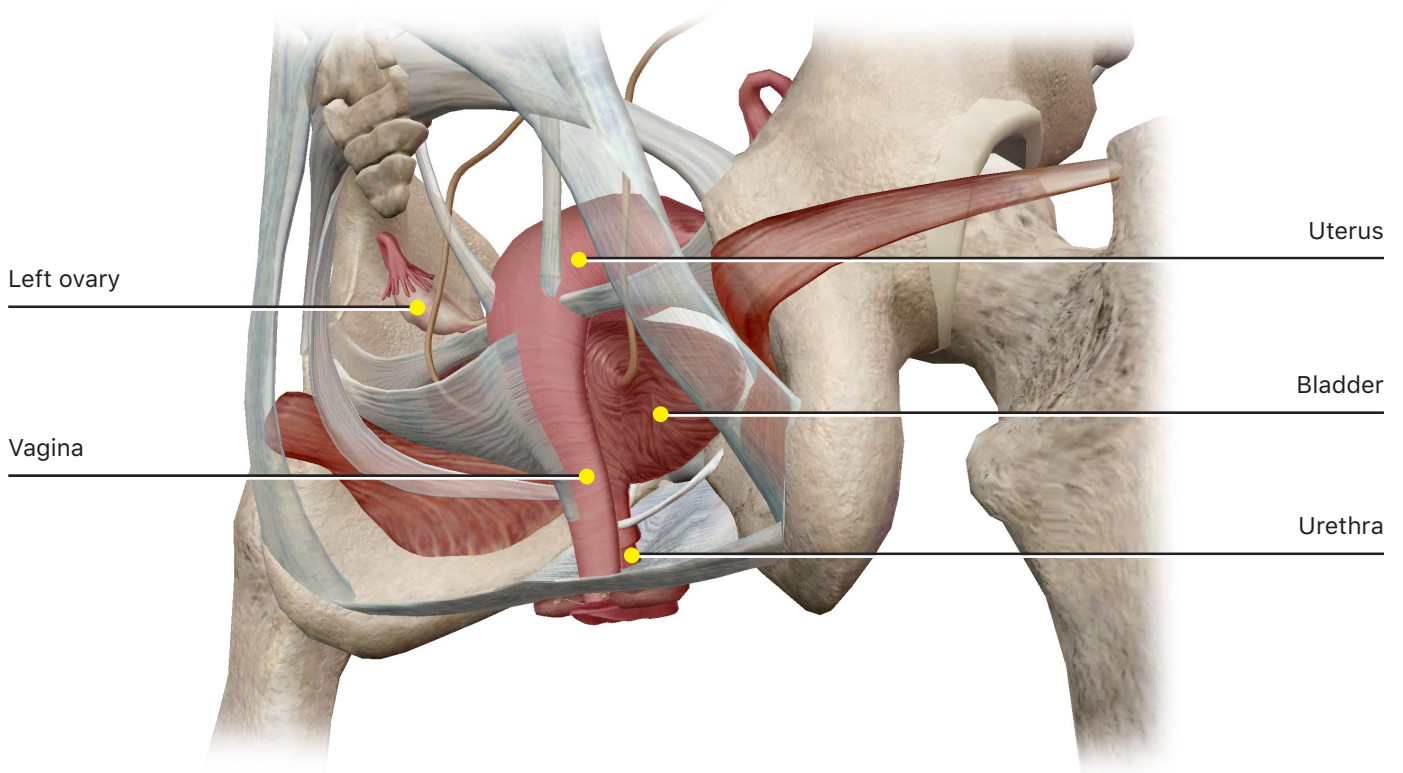
- ii. What percentage of the genetic information passed to the fertilized egg comes from the egg (oocyte)?

- 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?



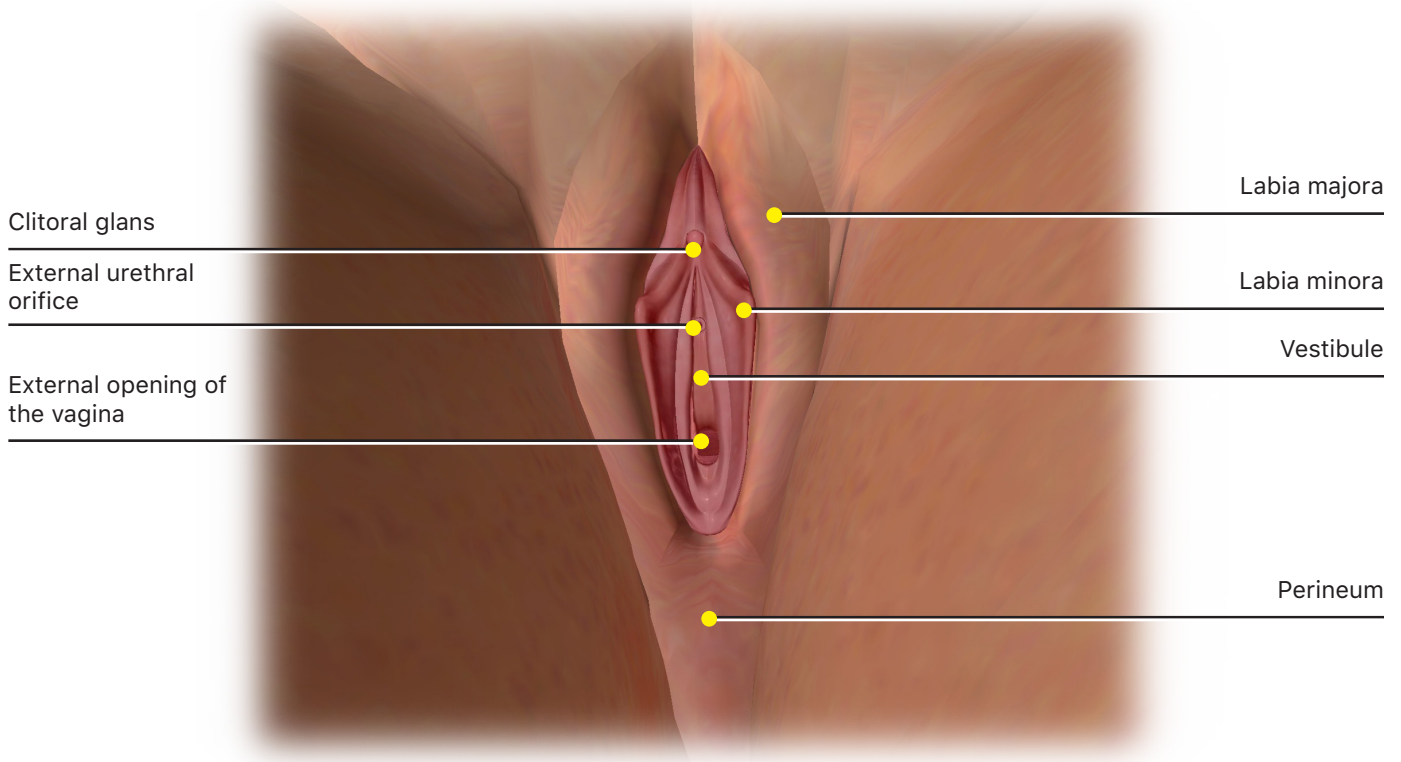
6. Open the Reproductive System View "Vagina and Urethra (F)." Locate the vagina and select it, then read the definition.

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 _____.

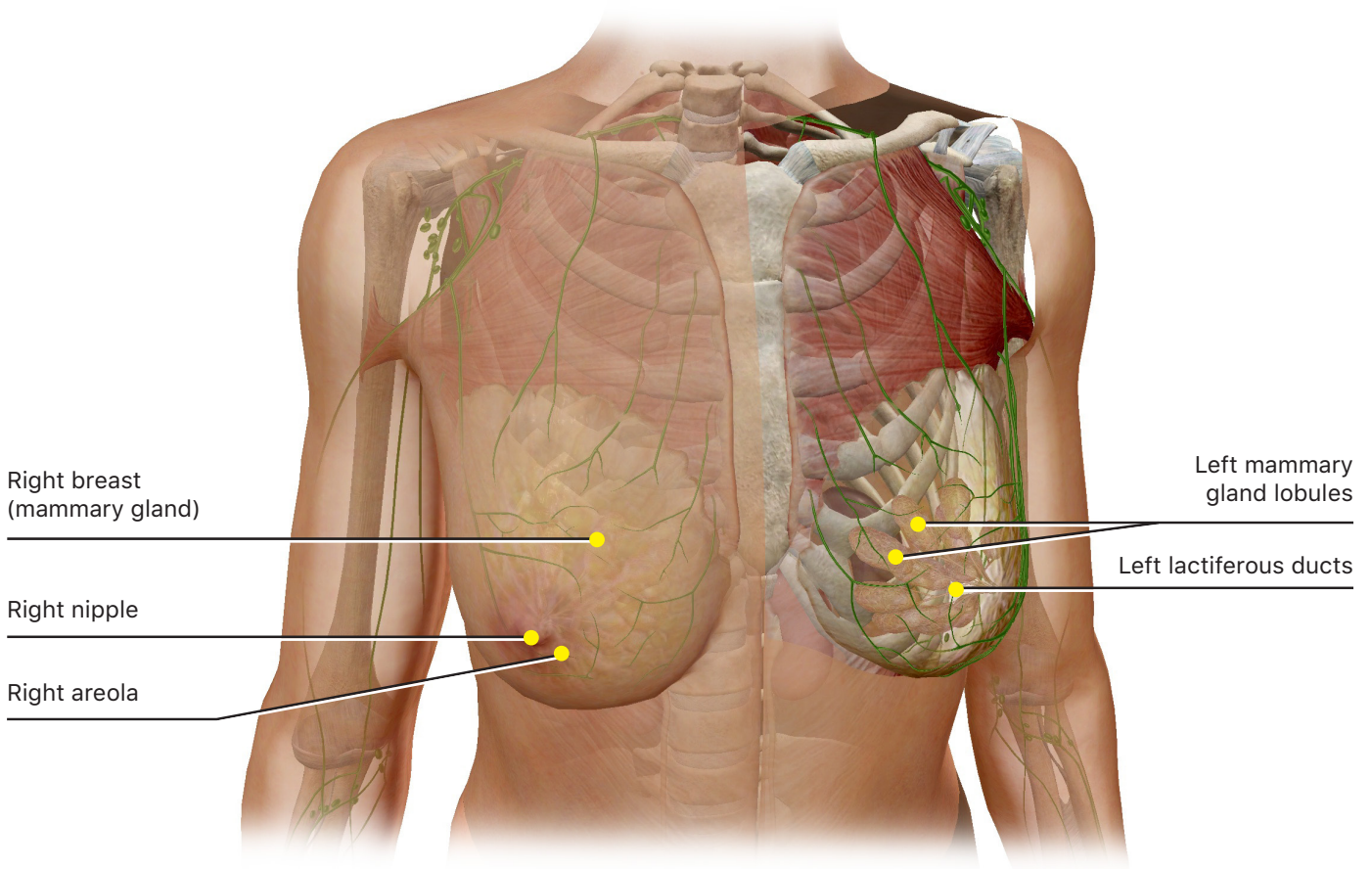
d. In the Systems Tray, deselect the skeletal system icon (the skull) to hide the skeletal structures from the view. Rotate the model slightly in order to locate the urethra and note how it also ends at the vestibule (vulva).



7. Open the Reproductive System View "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!](#)
[SEARCH FOR AND TAKE THE FOLLOWING REPRODUCTIVE SYSTEM QUIZZES: EXTERNAL GENITALIA \(F\) AND INTERNAL GENITALIA \(F\)](#)



8. Open the Reproductive System View "Breasts (F)."

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

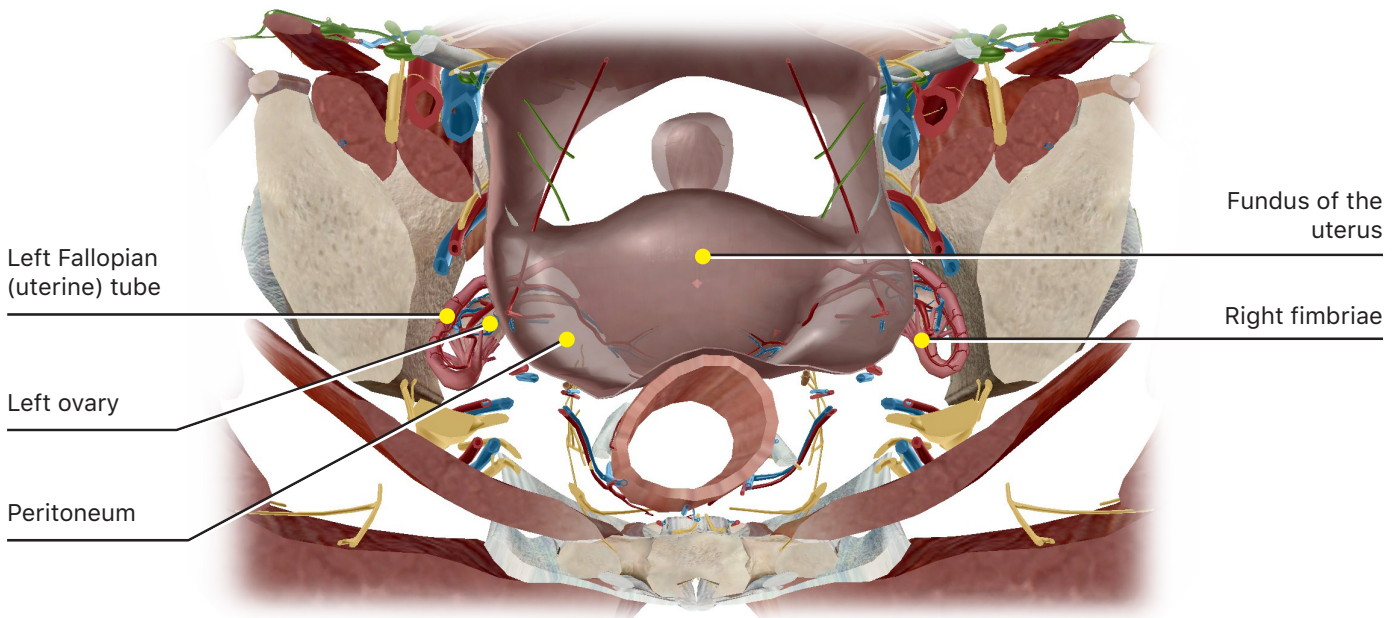
- b. In the Systems Tray, select the skin icon, and locate the **nipple** and the **areola** in the center of each breast.

- 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.

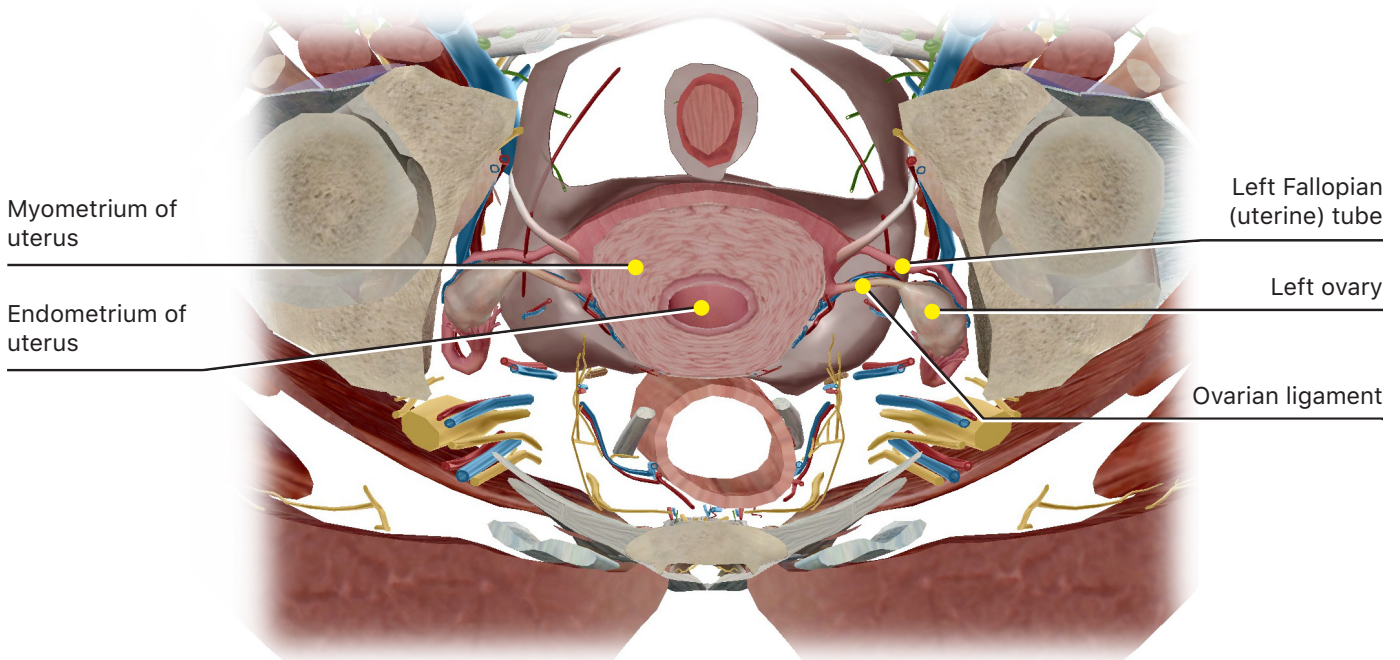
B. Pelvis Cross Section

Search for "pelvis" and open the Cross Section "Pelvis (S05) (F)." Use the Flip button in order to view the section from the other side.

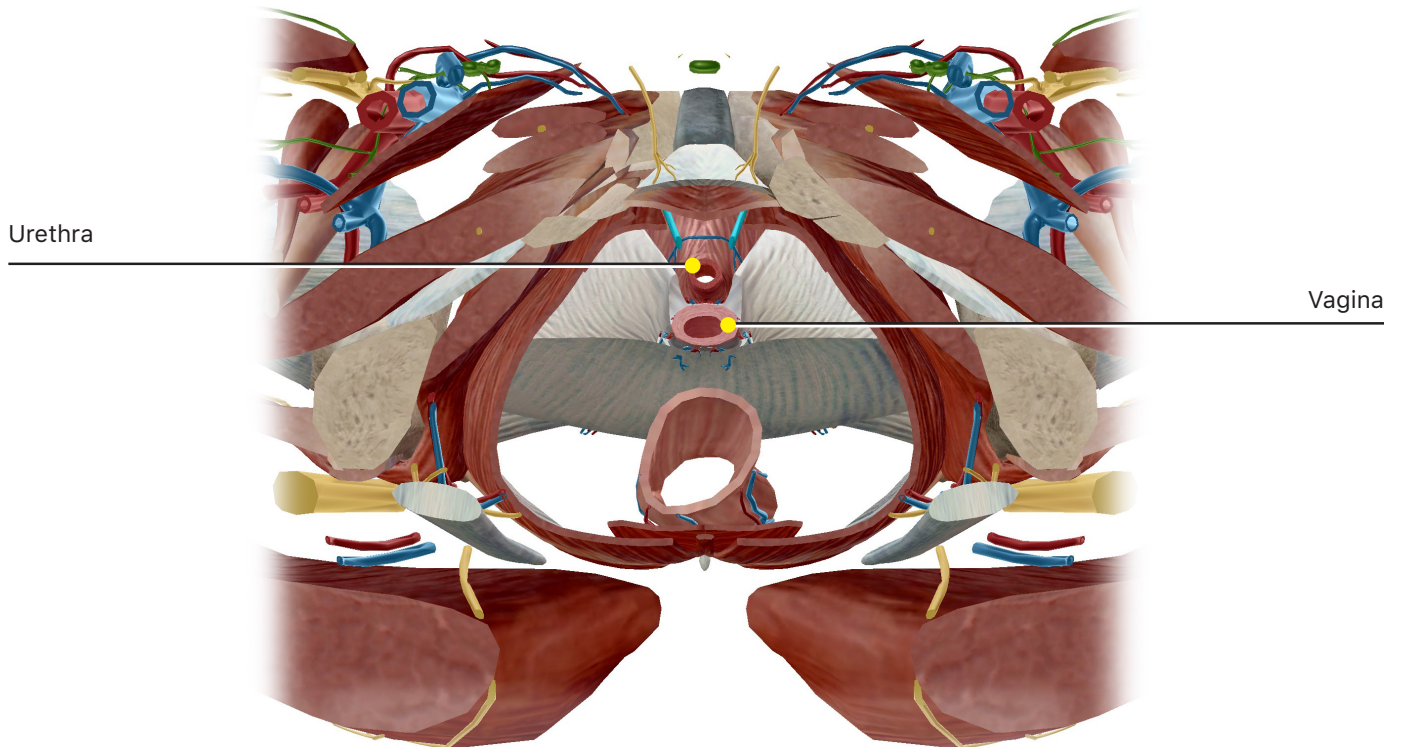


You can see the **fundus** of the **uterus** through the **peritoneum**. Locate the **uterine tubes** and the **ovaries**. Locate the **fimbriae** surrounding each ovary. Now flip the section over again to view the section from beneath. Locate the **myometrium** (muscular inner layer) and the **endometrium**.

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



Use the right-hand arrow in the content box to progress to the next Cross Section "Pelvis (Coccyx) (F)."
Locate the **cervix** as it protrudes into the **vagina** slightly.



Use the right-hand arrow in the content box to progress to the next Cross Section "Pelvis (Symphysis) (F)."
Locate the **vagina**, visible beneath the **urethra**.

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.

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

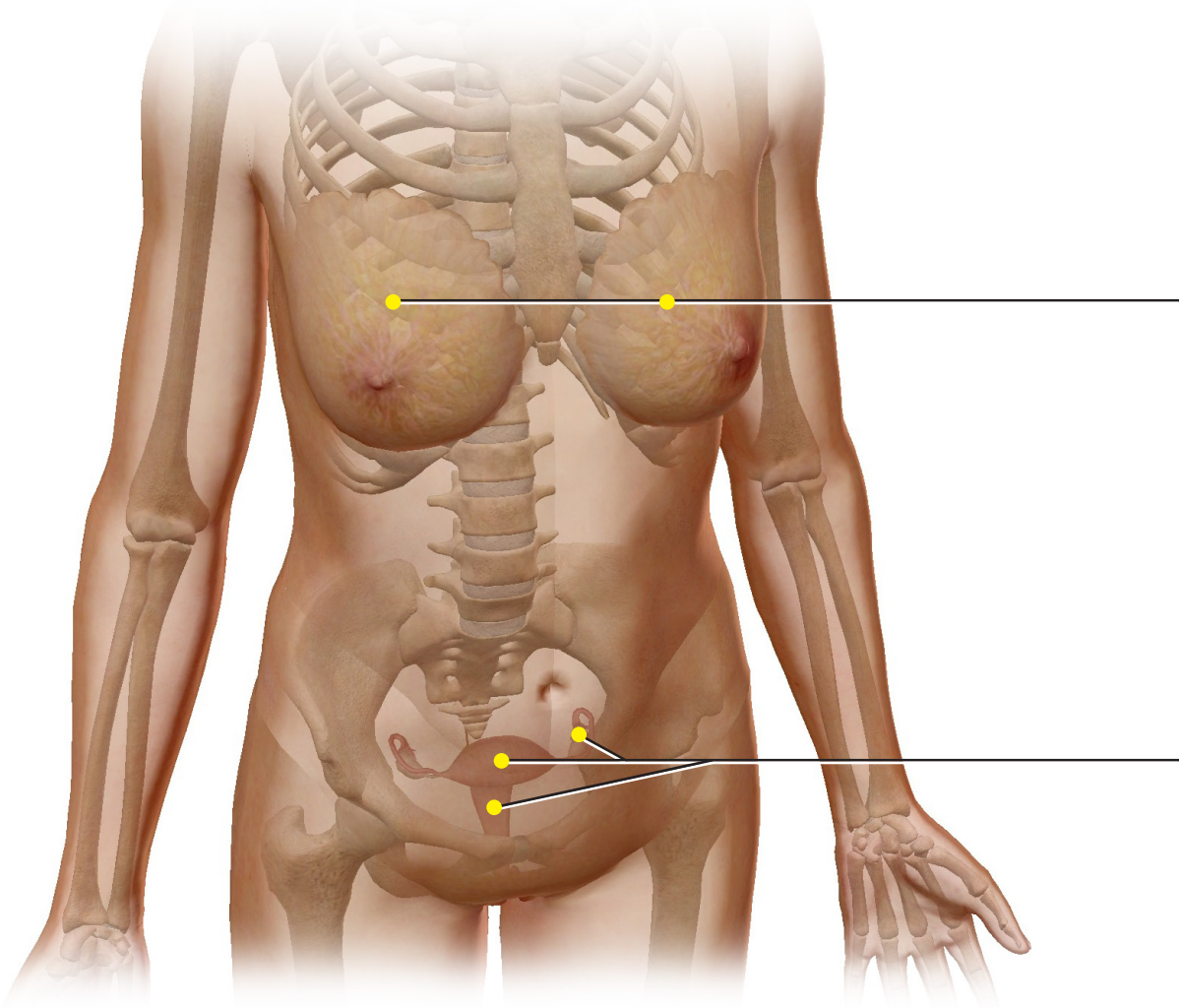


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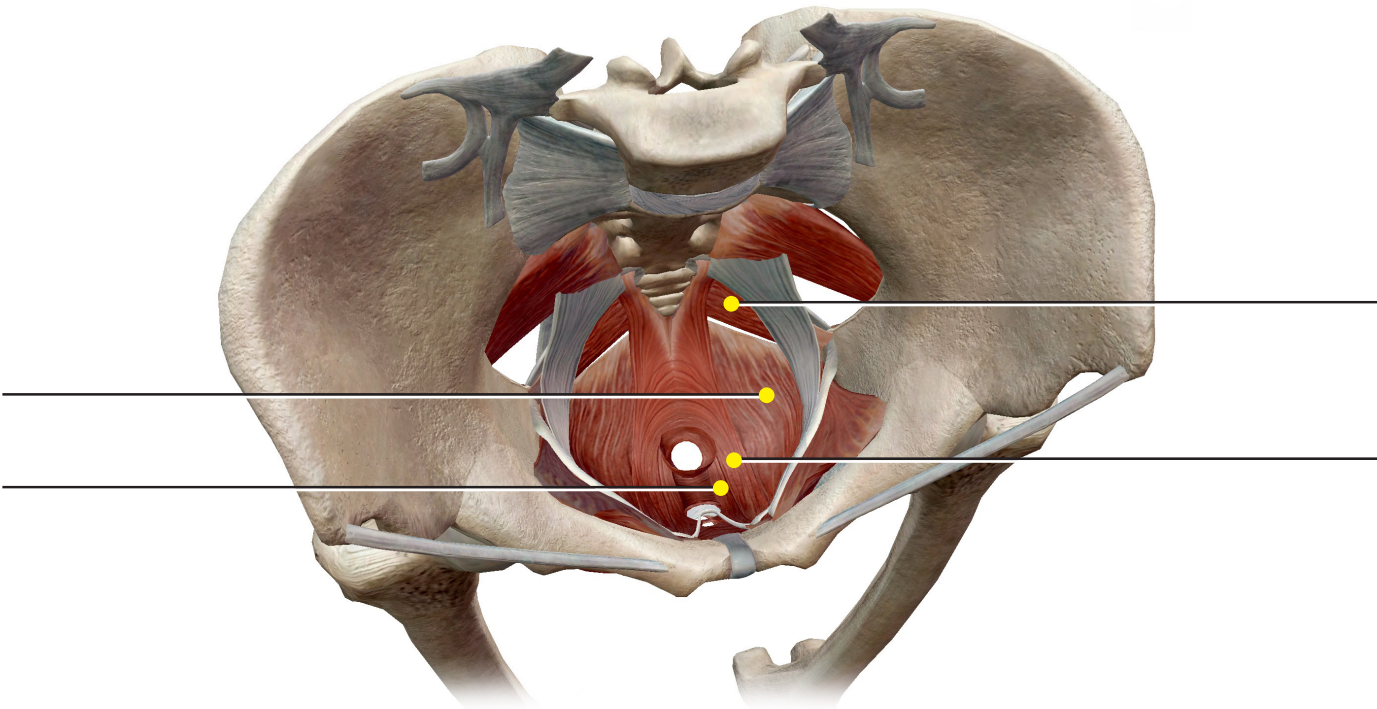
Student Practice

Label the structures in the following figures.

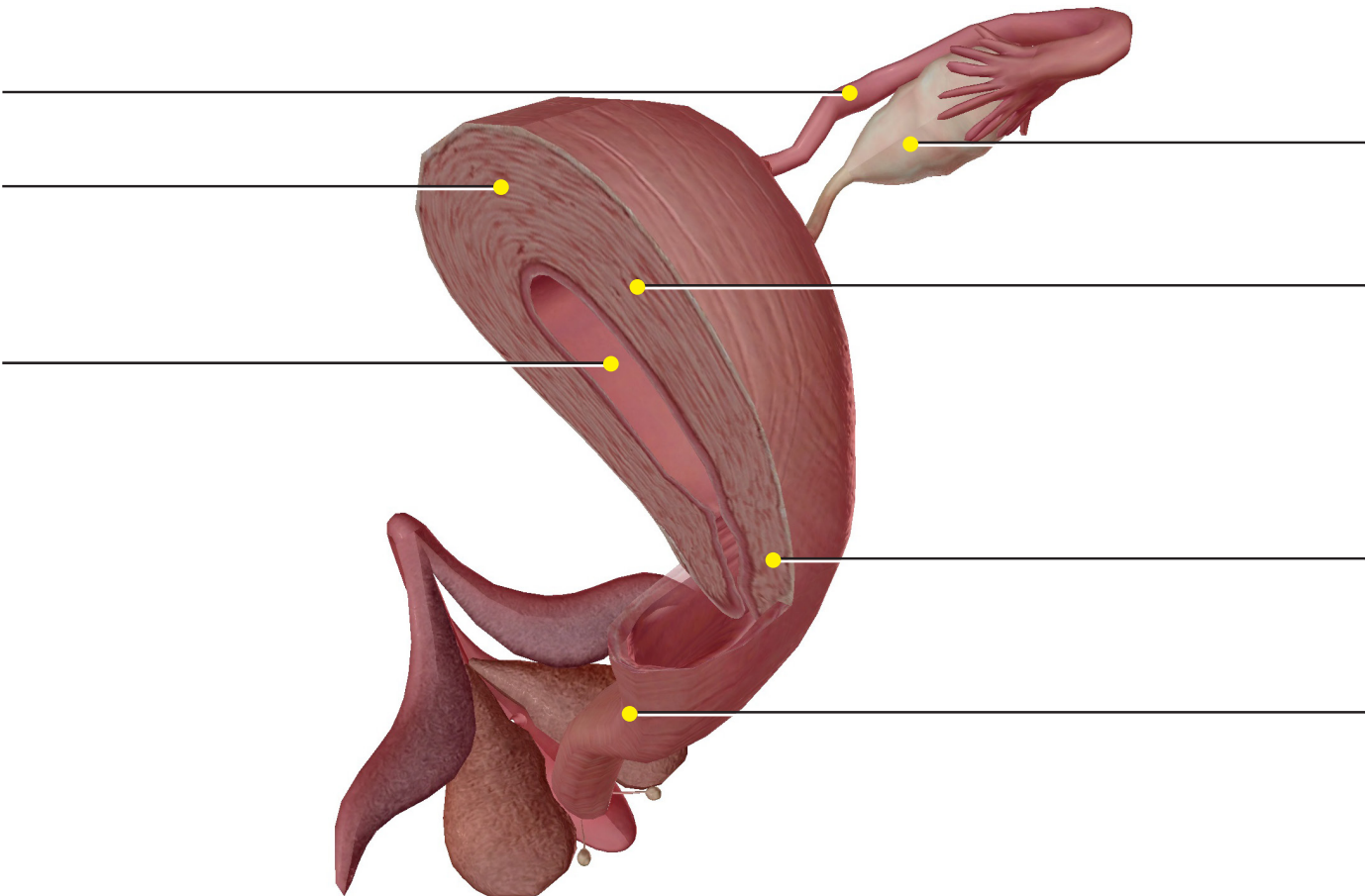
Source: Reproductive System View "Reproductive System (F)"



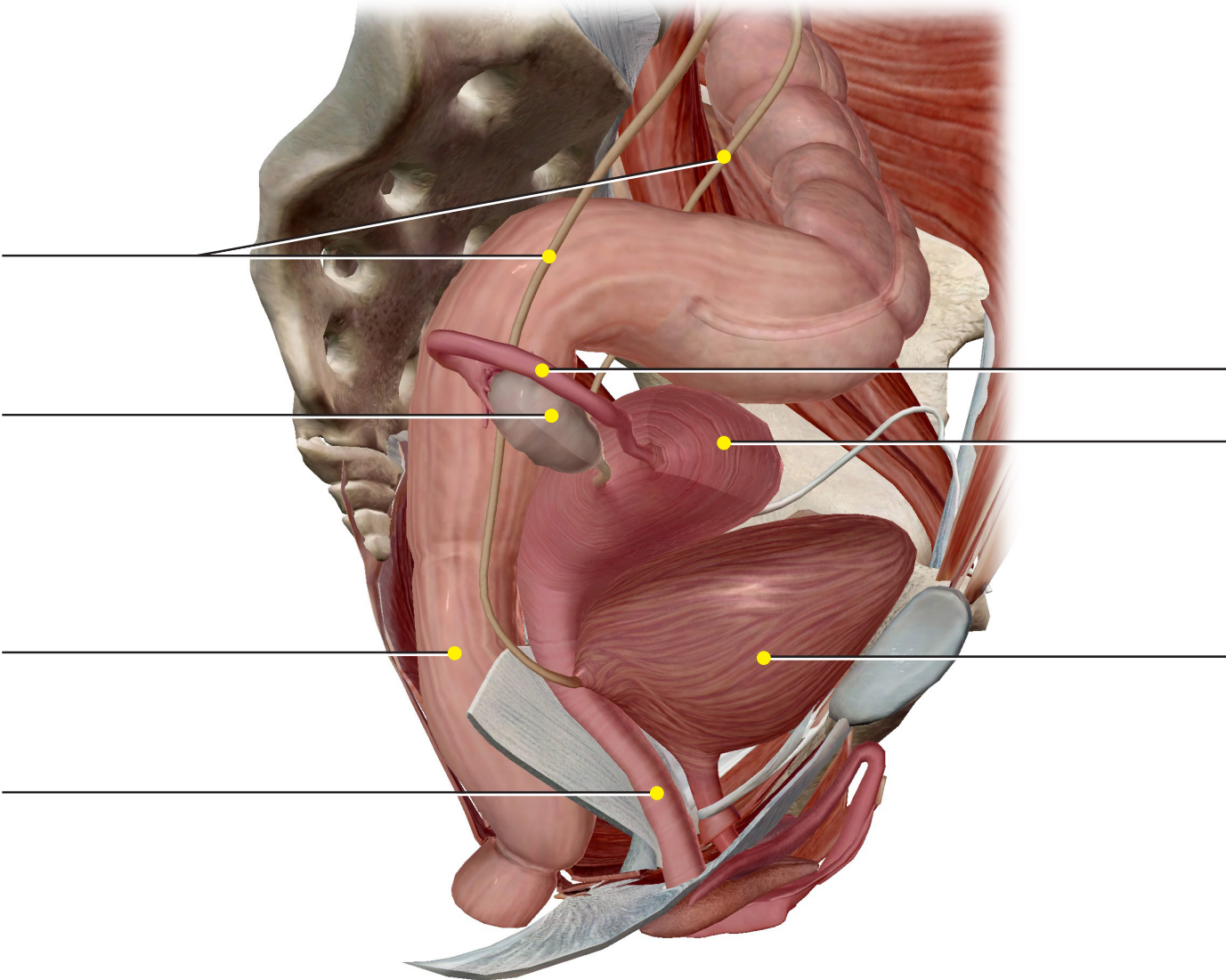
Source: Reproductive System View "Pelvic Floor (F)"



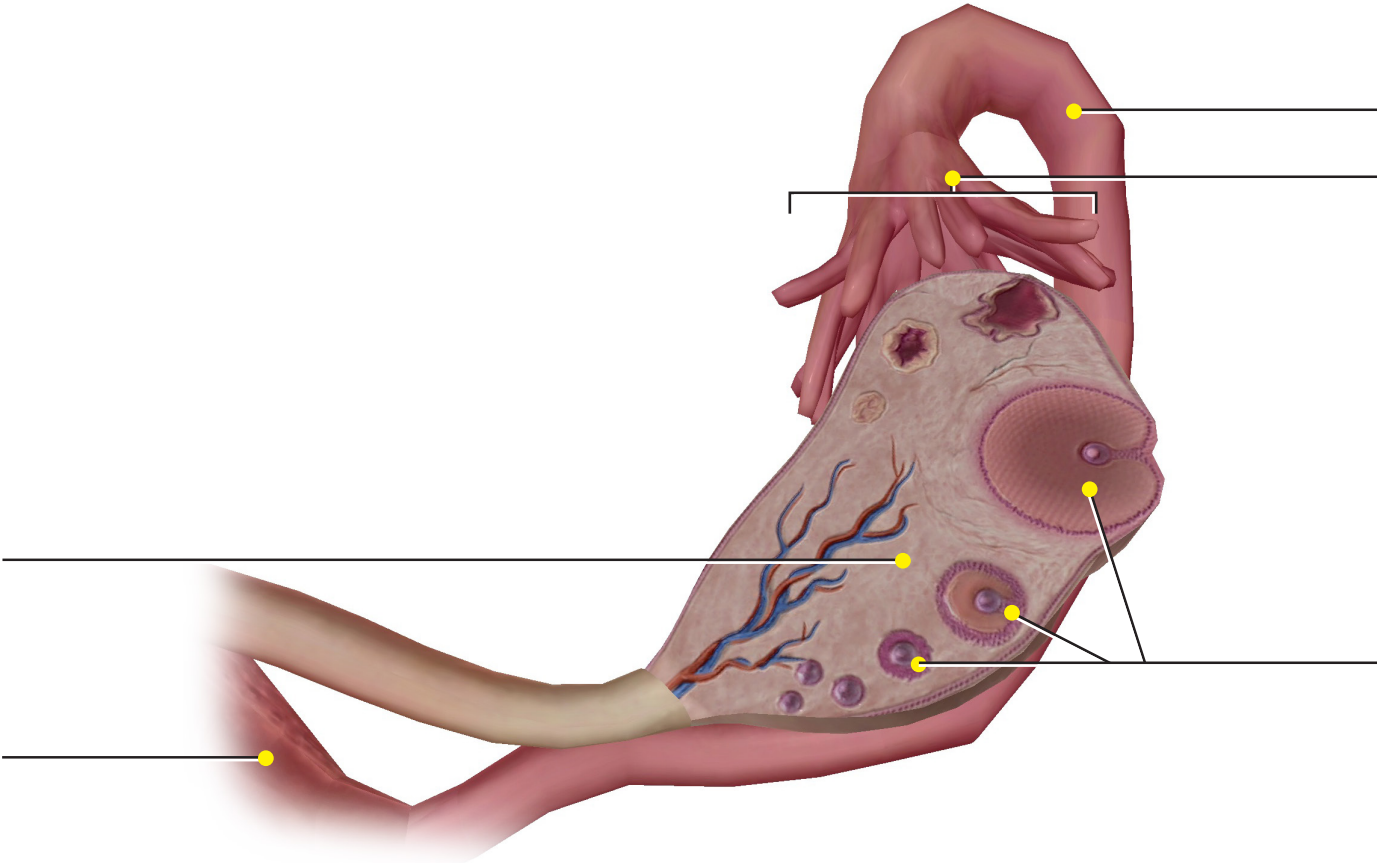
Source: Reproductive System View "Internal Genitalia (F)"



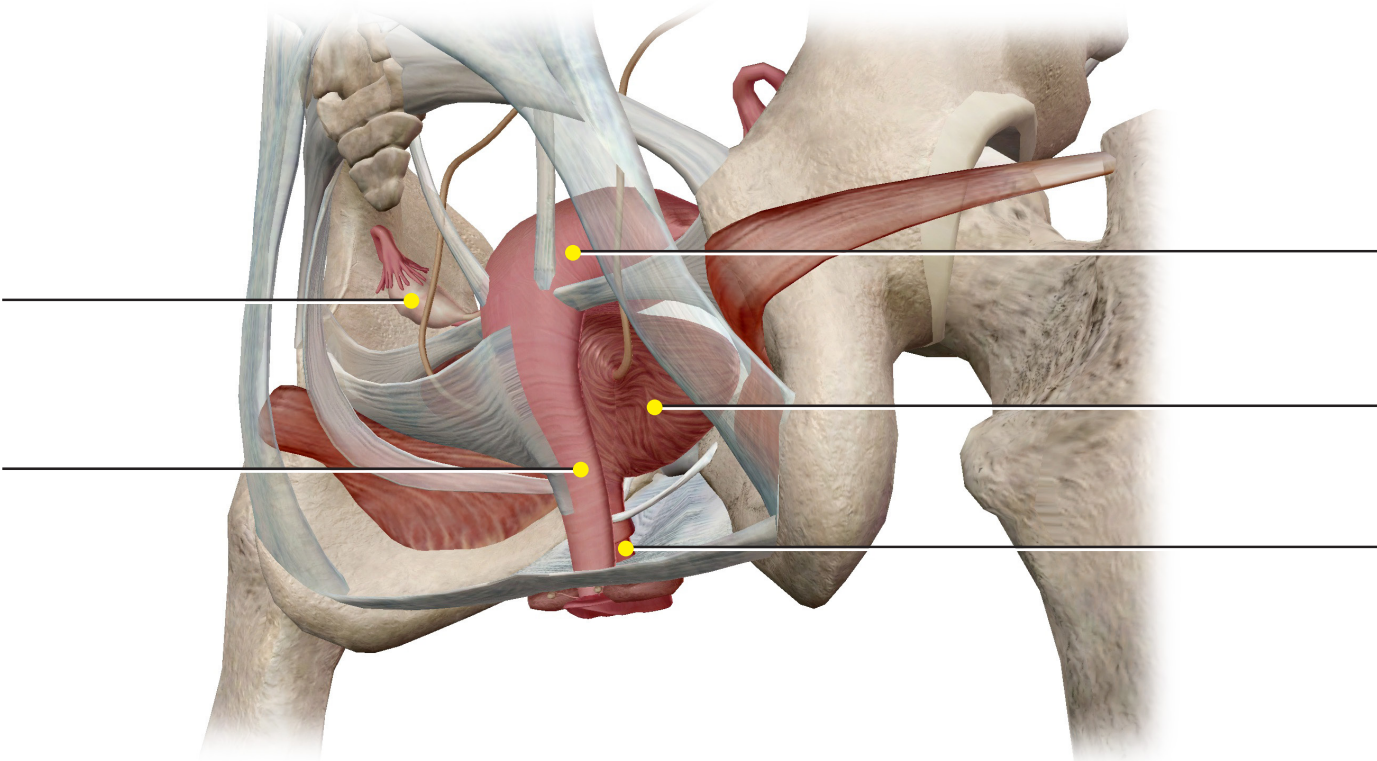
Source: Reproductive System View "Location of Organs (F)"



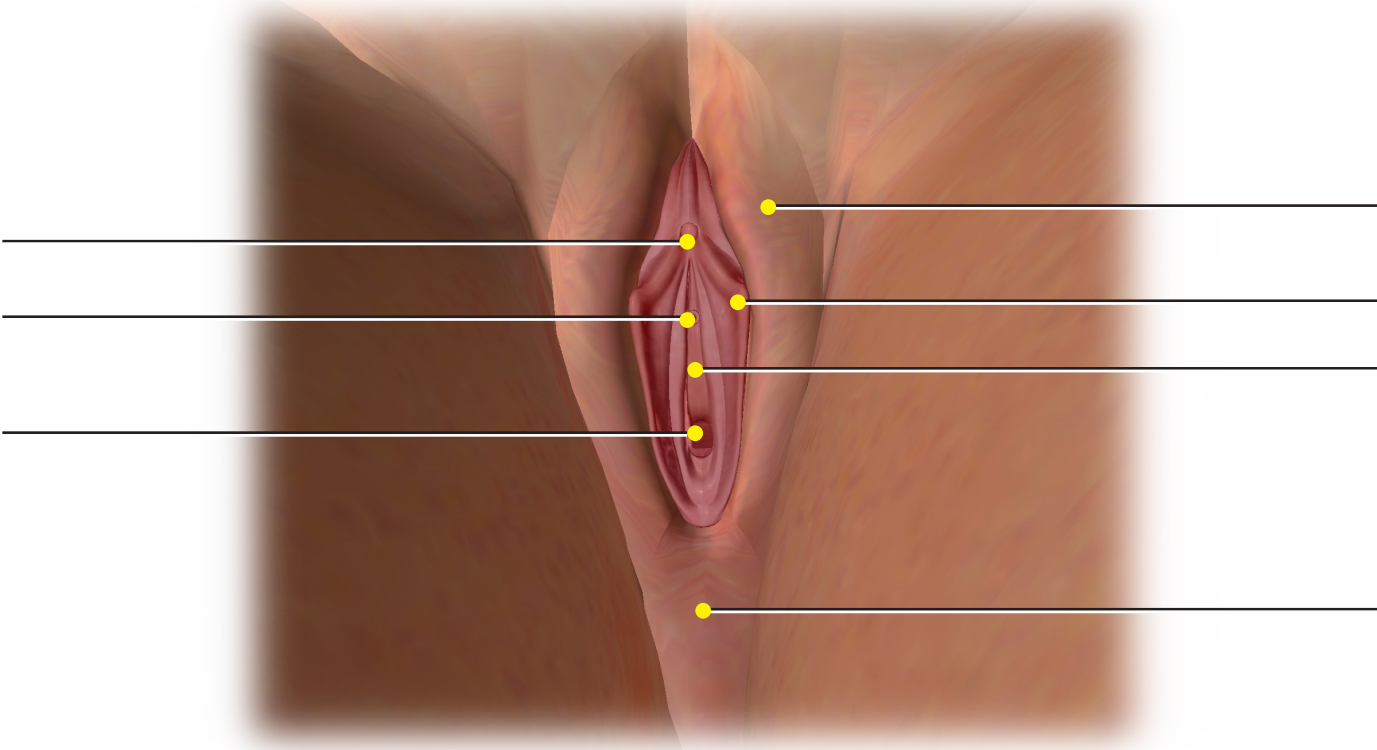
Source: Reproductive System View "Ovary Section (F)"



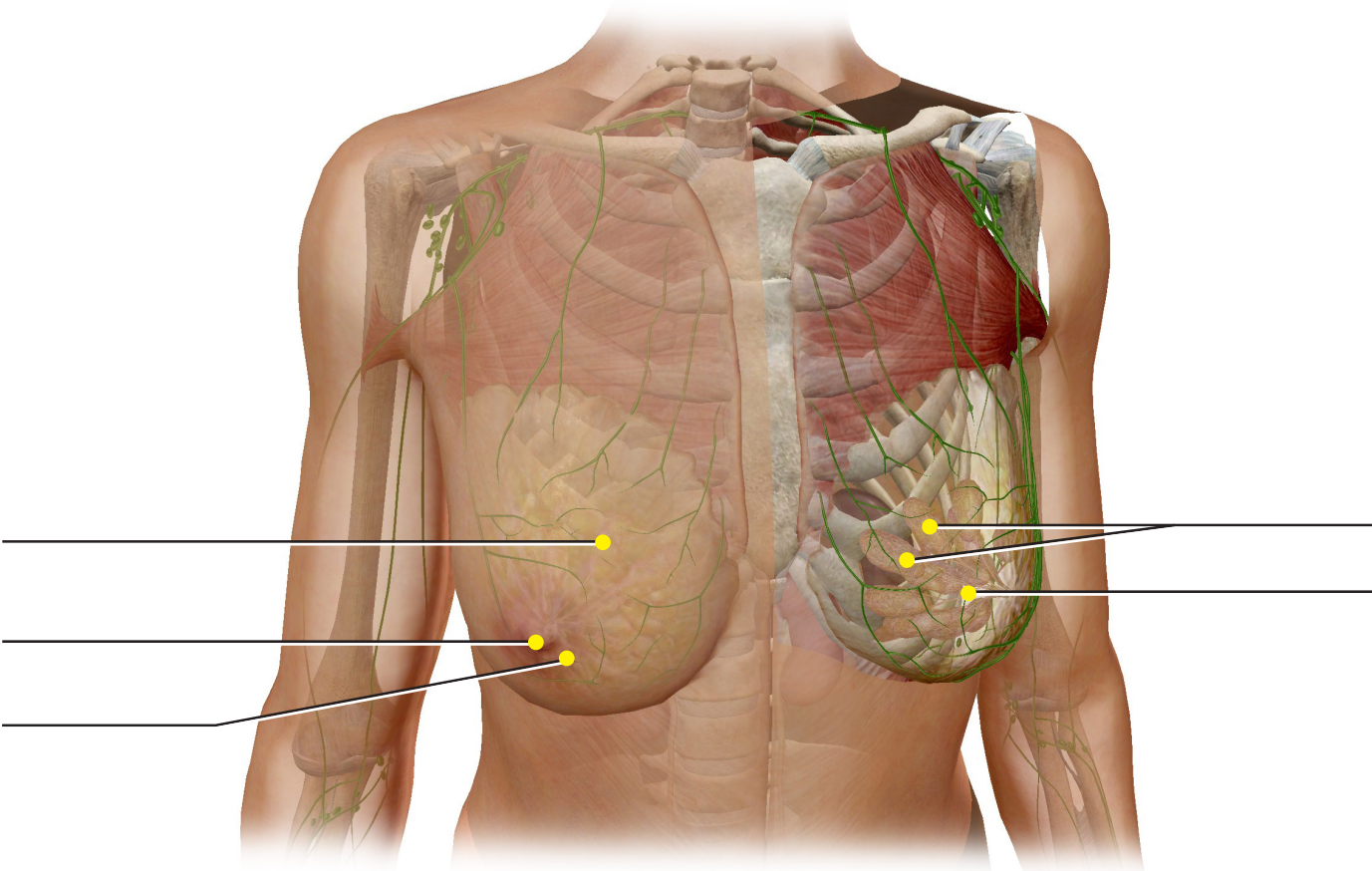
Source: Reproductive System View "Vagina and Urethra (F)"



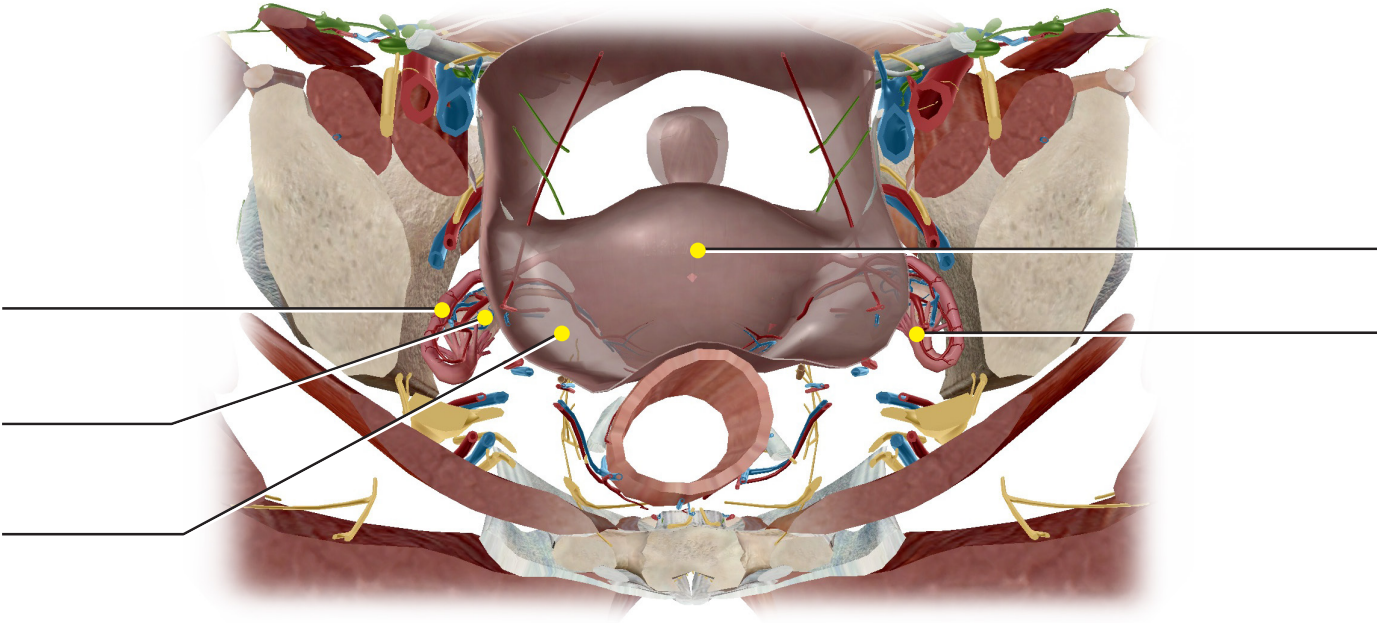
Source: Reproductive System View "External Genitalia (F)"



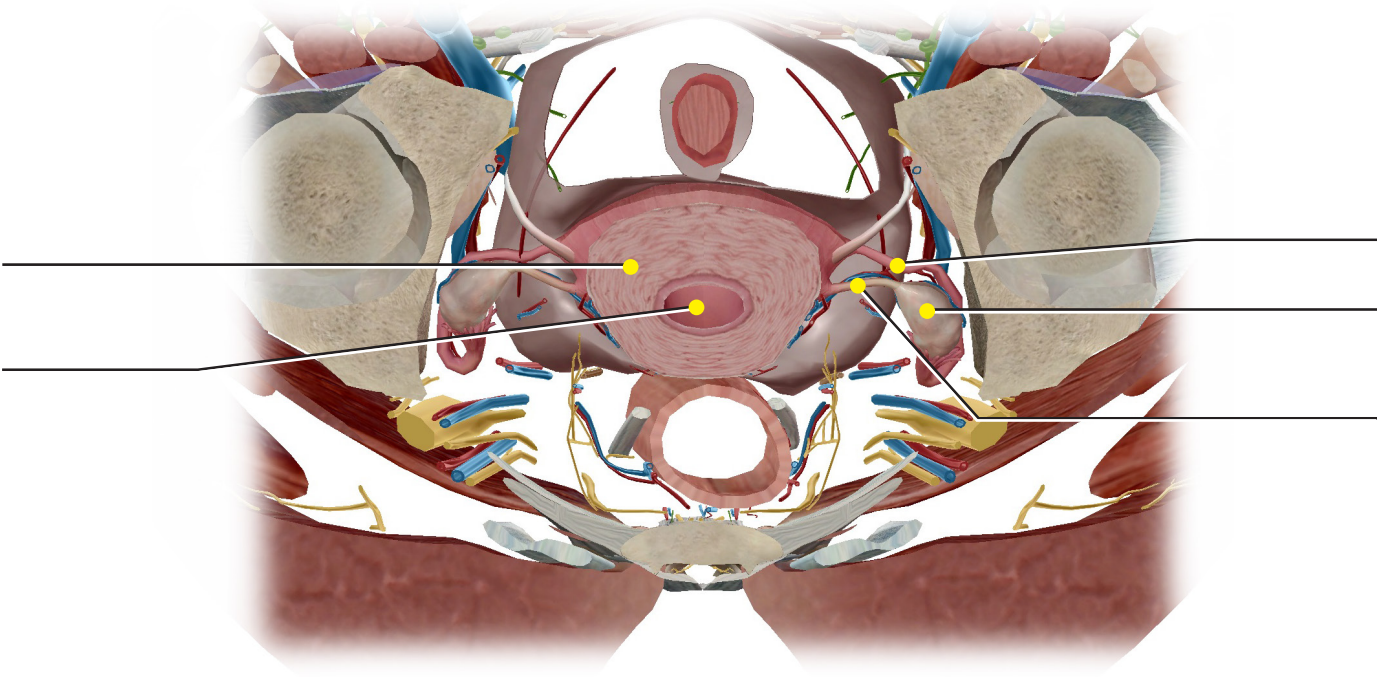
Source: Reproductive System View "Breasts (F)"



Source: Cross Section "Pelvis (S05) (F)"



Source: Cross Section "Pelvis (S05) (F)" (Flipped)



Source: Cross Section "Pelvis (Symphysis) (F)"

