

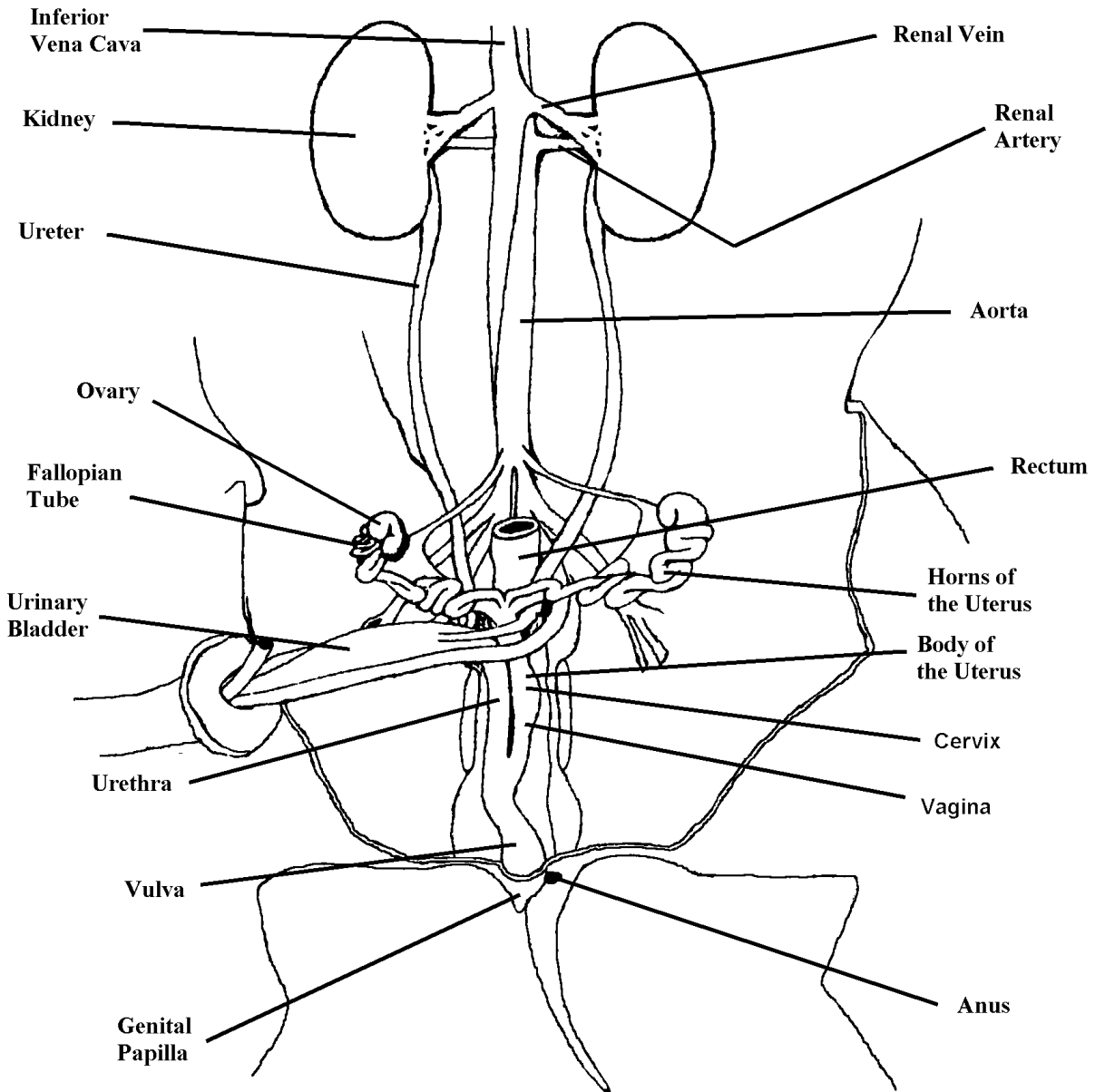
**Background Information**

The reproductive organs of the fetal pig are similar to those of the human. Note, however, the difference in the structure of the uterus of the female. Although you will dissect the reproductive system of only one sex, you are **responsible** for that of **both** sexes. Therefore, carefully study the reproductive structures on a fetal pig of the opposite sex.

**Procedure****Part 1. The Female Reproductive System**

1. Use Figure 1 as a guide in your dissection. Identify the **ovaries**, a pair of small light-colored oval bodies located posterior to the kidneys.
2. The uterine tubes (**Fallopian tubes**) are very small, highly convoluted tubes lying on the dorsal surface of the ovaries. The expanded end of the Fallopian tube, which partially covers the ovary and picks up the eggs from the ovary, is called the **ostium**.
3. Trace the Fallopian tube until reaching a larger tube next to each ovary. These tubes, the **uterine horns** or **horns of the uterus**, are the beginning of the uterus. The eggs are carried through the Fallopian tubes to the uterine horns where, if fertilized, they develop. The fetuses tend to be equally spaced throughout the two horns.
4. The two horns unite in the midline to form the **body of the uterus** which lies dorsal to the urethra. The broad ligament can be seen running laterally from the body of the uterus to the uterine horns.
5. To dissect the rest of the female reproductive system, the pelvic cavity must be exposed. Remove the skin from the ventral pelvis and cut through the pelvic muscles and the pubic symphysis in the midventral line. Cut with care since the urethra lies immediately beneath the pubic area.
6. Locate the **urethra**, the tube carrying urine from the **urinary bladder**.
7. Dorsal to the urethra, identify the **vagina**, the tube leading from the posterior end of the uterus.
8. Separate the urethra from the vagina. Toward the posterior end, the vagina and urethra unite to form a common passage called the urogenital sinus or **vulva** which opens to the outside. An external **genital papilla** is located on the external surface at the opening of the vulva.
9. The lateral boundaries of the urogenital sinus are folds called the **labia**. These unite ventrally to form the genital papilla.
10. Locate the **rectum**, the continuation of the large intestine, dorsal to the vagina.

Figure 1 Reproductive Organs of the Female Pig



Lab

Dissection - Reproductive System

**Part 2. The Male Reproductive System**

1. Use Figure 2 to identify the male reproductive parts. Locate the **scrotum**, the sac visible under the skin ventral to the anus. Early in fetal development the testes are located below the kidneys; however, they migrate before birth through the **inguinal canal** into the scrotum.
2. Locate the **inguinal canals**, two openings in the abdominal wall, by tracing the internal **testicular arteries** posteriorly until they pass through the canals.
3. To expose the remainder of the male reproductive organs, cut through the skin in the midventral line ventral to the pubic symphysis. Cut through the scrotum carefully, to avoid damaging the structures contained within.
4. Using Figure 2 as a guide, locate both the left and right **processus vaginalis**, large white sacs on each side which contain the testes. This structure is an evagination of the peritoneum that precedes the descent of the testes and surrounds them.
5. Pass a probe from the abdominal cavity through the inguinal canal and note that this emerges inside the processus vaginalis.
6. Cut open one of the sacs to expose the **testis**. The **epididymis** should be located along the medial side of the testis. This begins at the cranial end of the testis and extends to its caudal end. Identify the gubernaculum, the band of tissue which extends from the posterior end of the epididymis to the scrotal wall. This helps pull the testis posteriorly from the body cavity, through the inguinal canal, and into the scrotal sac.
7. The **vas deferens** carries the sperm from the epididymis through the inguinal canal to empty into the urethra. Trace the vas deferens through the inguinal canal to the urethra, noting how it loops over the ureter and enters the dorsal surface of the urethra.
8. Locate the **penis**, the long muscular tube lying just under the skin immediately posterior to the umbilical cord and the **urogenital opening** in the midventral strip of the abdominal wall. Remove the overlying skin so that the penis is exposed.
9. Now move the penis to one side of the midventral line and cut through the midventral portion of the pelvic muscles and the pubic symphysis. Spread the legs apart to expose the pelvic cavity. The **urethra** should now be visible emerging from the urinary bladder.
10. Separate the **rectum** from the urethra and trace both tubes to the outside.
11. Identify the large pair of bulbourethral or **Cowper's glands**, each of which is located at one side of the urethra near the anus.
12. Locate the **seminal vesicles** and **prostate** glands at the beginning of the urethra. They can be found on the dorsal side of the urethra and ventrally to the rectum. These glands, along with the Cowper's glands, will produce seminal fluid that nourishes and protects the sperm cells.

**Figure 2** Ventral View of the Male Reproductive Organs of the Fetal Pig

