

GENERAL URINARY SYSTEM

- The urinary system consists of two kidneys, two ureters, the urinary bladder, and the urethra.
- The organs of the urinary system are closely related to the reproductive organs in terms of embryonic development and anatomic topography. Urinary & genital systems have a **common embryonic origin (urogenital ridge) and they share common ducts.** Therefore the two systems are often described together urogenital system.

Kidney (Ren/Nephro)

- **Location**-dorsal to the abdominal cavity, retroperitoneally (outside of the peritoneal cavity)
- located in the sublumbar region
- In domestic mammals the Right kidney is located further cranial than the left
- **Shape**: bean-shaped in the dog, cat, sheep and goat. Right kidney of the horse has a valentine heart shape, while the left one is bean shaped. The bovine kidney- irregular oval shape and lobulated.
- **Color**: bright red
- Anatomically it has following features —
 - cranial / caudal poles
 - dorsal / ventral surfaces
 - medial / lateral borders:
 - The medial aspect of each kidney features a concavity, the hilus, where arteries and nerves enter the kidney, and the ureter, veins, and lymphatic vessels leave.
 - Basin shaped wide origin of the ureter in the kidney is called renal pelvis
 - The renal pelvis receives urine from the collecting tubules of the kidney.

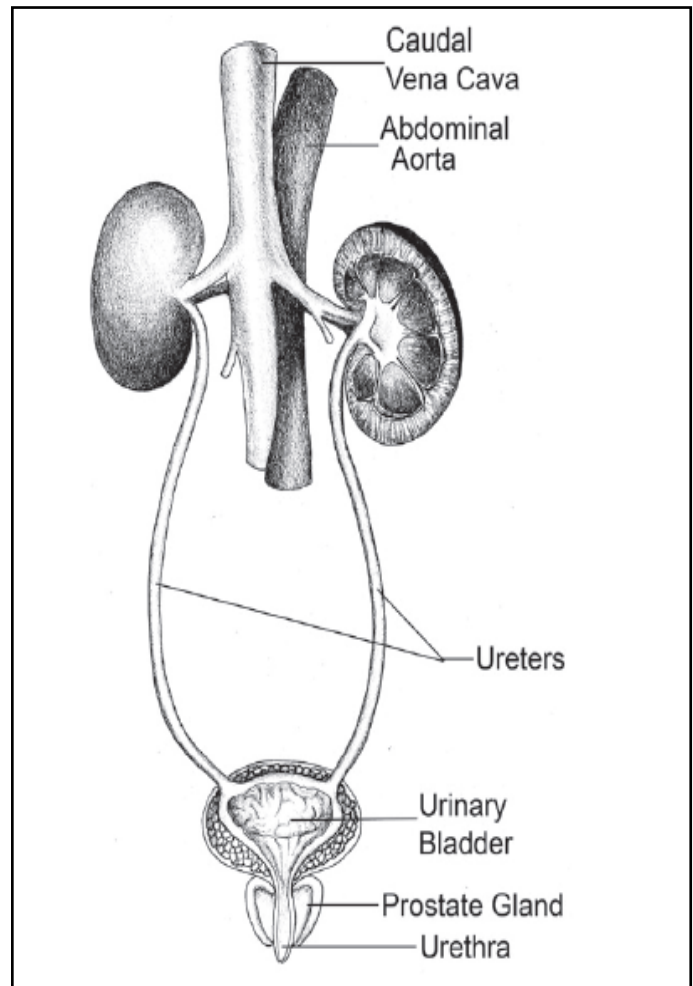


Fig. 1 Urogenital system of Dog

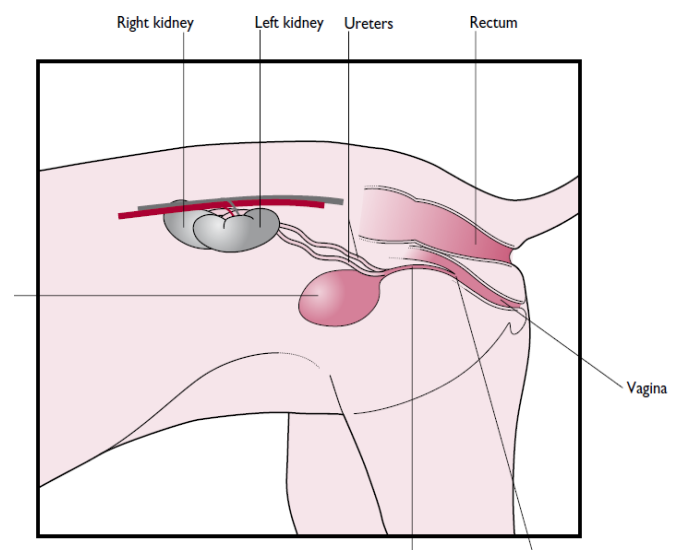


Fig. 2 Topography of kidney