

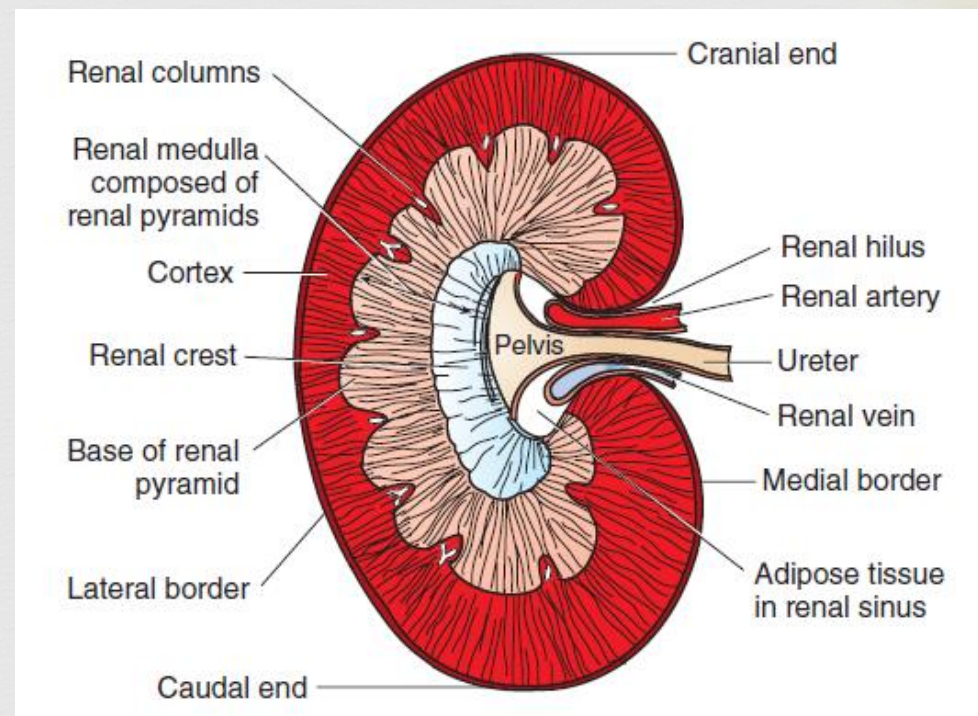
# Nephrotomy



**Assis. Lect. Mohammed Resen**

## Kidney :

The kidneys are paired, bean-shaped structures located in the retroperitoneal space directly beneath the sublumbar muscles. The cranial pole of the right kidney lies in the renal fossa of the caudate liver lobe and is located more cranially than the left kidney. The cranial pole of the left kidney lies lateral to the ipsilateral adrenal gland, which is closely associated with the cranial aspect of the left renal vessels. The left kidney is generally more mobile than the right kidney.



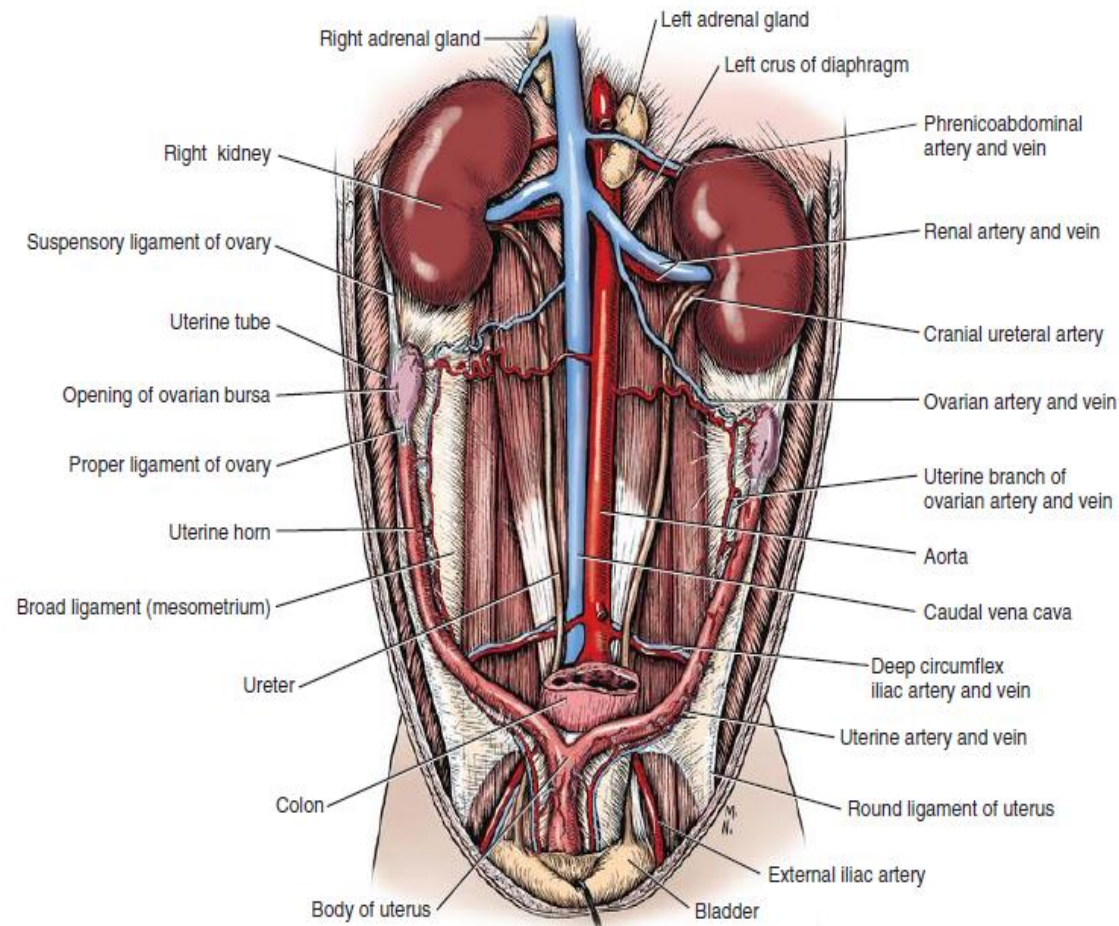


## ❧ Blood Supply

1. Renal artery
2. Renal vein

## ❧ Innervation

- 1- The sympathetic ganglion
- 2- parasympathetic sources. (vagus) trunks.



# Indication

- ❧ Incision of renal parenchyma is performed to obtain tissue samples or to gain access to the renal pelvis for removal of nephroliths or other obstructive lesions.
- ❧ Indications for nephrotomy include chronic infection, the presence of renal calculi, persistent hematuria of renal origin, or persistent hydronephrosis.

# Pre-op preparation



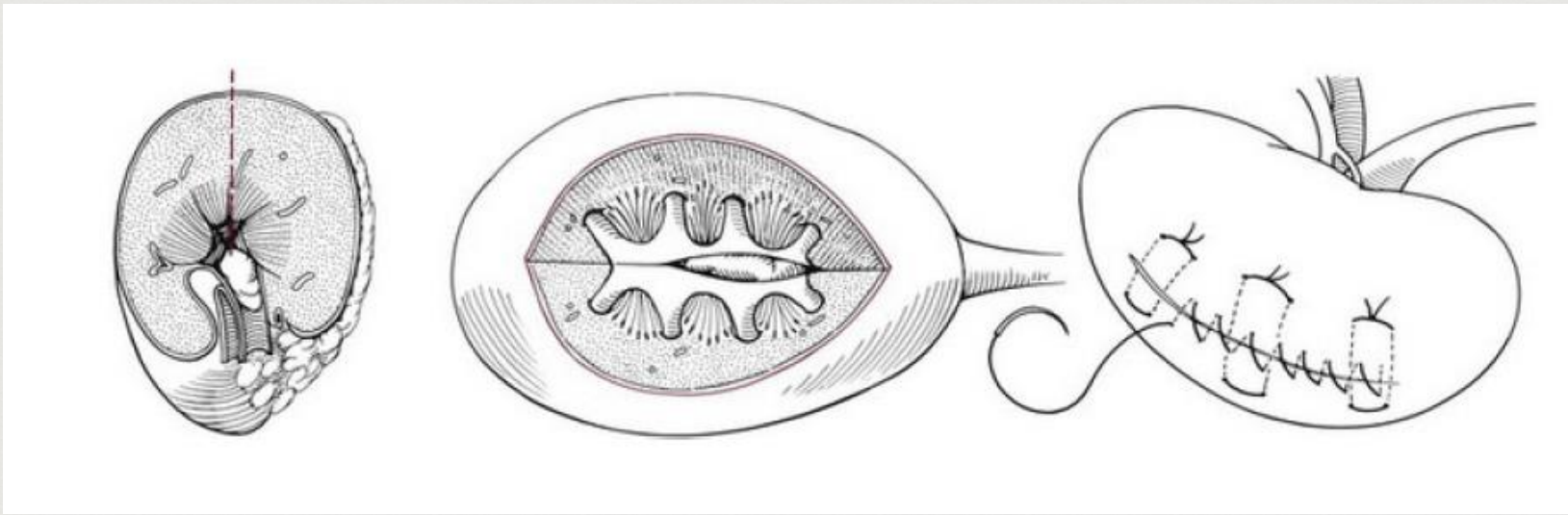
- ❧ Fasting the animal from food 24 hours before surgery and water 4 hours at day of operation.
- ❧ Prepare the surgical site by clipping and shaving, Then put surgical drape .
- ❧ Animal in dorsal recumbence position when open in midline, or lateral recumbence when open in flank.



## ∞ Surgical Technique

After laparotomy locate the renal vessels and temporarily occlude them with vascular forceps, a tourniquet, or an assistant's fingers. Mobilize the kidney to expose the convex lateral surface. Make a sharp incision along the mid line of the convex border of the kidney capsule, and then bluntly dissect through the renal parenchyma. Remove the calculi and flush the kidney with warm saline or lactated Ringer's solution. Assess the ureter for patency by placing soft rubber catheter down the ureter and flushing it with warm fluids.

Close the nephrotomy by apposing the cut tissues and applying digital pressure for approximately 5 minutes while Restoring blood flow through the renal vessels (suture less technique).



As an alternative, appose the capsule with a continuous pattern of absorbable Suture material. If adequate hemostasis is not achieved, or if urine leakage is a concern, place absorbable sutures through the cortex in a horizontal Mattress fashion.

Replace the kidney in its original location. Sutures may be placed in the peritoneum where the kidney was elevated to help stabilize it.



post operative care

- ❧ systemic antibiotic for 3-4 days
- ❧ remove the suture after 7-10 days
- ❧ Intravenous fluids
- ❧ Opioid analgesia

