

## MALE GENITOURINARY EXAMINATION

### KIDNEY

**INSPECTION:** Inspect the abdomen and flank. If the renal size is large enough, a visible mass may be seen. This is usually only seen in a child or thin adult.

**PALPATION:** Palpate the kidney with the patient in the supine position. Push the kidney forward with the one hand in the back, and palpate the kidney with the other hand pressing the abdomen. Ask the patient to take a deep breath while trying to keep the abdomen soft. Palpate the lower pole of the kidney.

The kidney is usually not palpable in a normal adult but is in children and thin adults.

**Causes of visible and/or palpable kidneys:**

- hydronephrosis
- polycystic disease
- large simple cyst
- carcinoma

**AUSCULTATION:** With the patient in the supine, prone or sitting position, auscultate the epigastrium, flank and CVA (costovertebral angle) for a bruit.

**Causes of bruits:**

- A-V Fistula
- Renal artery stenosis
- Vascular tumor

### BACK

**INSPECTION:** With the patient in the supine position or in the sitting position (or both), gently percuss the CVA (angle between the paraspinal muscles and the 12 rib).

**PALPATION:** Note that this must be gentle as a forceful blow will elicit tenderness in normal patients. Note tenderness of the ribs, paraspinal muscles and spine. The KIDNEY tenderness is best elicited in the CVA as this causes motion of the kidney. Tenderness of the ribs or paraspinal muscles is usually NOT renal in origin.

**Tenderness suggests:**

- Acute pyelonephritis
- Acute glomerulonephritis
- Renal or Perirenal abscess
- Acute hydronephrosis

**URETER**

Because of the position of the ureter deep within the retroperitoneal space, the ureter is not visible or palpable except for massive hydronephrosis in an infant or small child.

**BLADDER**

**INSPECTION:** A midline mass in the suprapubic area may be an enlarged bladder.

**PALPATION:** Gently palpate the suprapubic area. With palpation of a midline mass, suspect a distended bladder if the patient has the urge to void with gentle pressure on the mass.  
A distended bladder may be difficult to palpate if the patient is obese or is unable to relax during the exam.

**PERCUSSION:** Percussion of a distended bladder caused a dull sound. Percussion of a distended loop of bowel will be tympanic.

**Causes of distended bladder:**

- **Outlet obstruction:**
  - urethral valves (child)
  - Prostatic hypertrophy or carcinoma
  - urethral stricture
- **Decreased bladder tone:**
  - neurogenic bladder (spinal cord injury)
  - myogenic (overstretched bladder)
- **Senility or bed rest:**  
Some patients are unable to void in the supine position.

**DIFFERENTIAL DIAGNOSIS:**

- Uterus: pregnancy or tumor
- Ovary: cyst or tumor
- Colon: tumor or fecal impaction

**PENIS**

**INSPECTION:** Look at the penis. Are there any lesions present?

- Ulcer: syphilis, herpes simplex or chancroid
- Bumps: condylomata acuminata, molluscum contagiosum
- Tumor: carcinoma

Retract the foreskin. You may find:

- balanitis
- condylomata acuminata
- carcinoma
- meatal stenosis

**MEATUS**

**INSPECTION:** Open the meatus. You may find condylomata acuminata or a discharge. A discharge may be normal seminal emission, gonococcal, trichomonal, nonspecific urethritis (NSU), condylomata or foreign body. Is the meatus on the glans penis or is it proximal (hypospadias). If a hypospadias is present, the foreskin is typically not complete and is missing in the ventral surface.

**PALPATION:** Palpate the shaft of the penis:  
 Dorsal: This may reveal a plaque (*Peyronie's Disease*), thrombosed dorsal penile vein, or carcinoma.  
 Ventral: (Urethra) may reveal induration due to carcinoma, stricture or foreign body

**INGUINAL LYMPH NODES**

Palpate and inspect the groins. Enlarged lymph nodes may be present with any lesion causing inflammation or carcinoma of the penis, vulva, scrotum, anus or lower extremity.

**Penis:** Carcinoma with metastases or with secondary inflammation.

**Syphilis:** Most cases of syphilis will have adenopathy.

**Chancroid:** About 50% of cases with chancroid will have adenopathy.

**Balanitis:** If severe adenopathy will be present.

**Note:** *Small non-tender nodes are palpable in normal individuals.*

**SCROTUM**

**INSPECTION:** Inspect the scrotal wall. Any dermatological lesion may affect the scrotum.

**Common lesions:**

- Sebaceous cysts
- Impetigo
- Condylomata accuminata
- Cherry angioma
- Lichen planus
- Psoriasis

Edema may be due to systemic causes as hepatic, renal or cardiac failure. Fluid overload (often seen with burn therapy). Enlargement may be due to intrascrotal pathology (see below).

**Note:** *The right testicle usually lies in a higher position than the left.*

## SCROTAL CONTENTS

**INSPECTION:** The scrotal contents should be examined in a systematical manner, i.e.:

- **Testicle**
- **Epididymis**
- **Cord**
- **External Ring**

**Testis:** The testis is slightly oblong or egg shaped with a smooth surface. It measures approximately 3 x 5 cm. in size and the size may vary greatly from individual to individual. Both testicles are usually the same size in the same individual unless there is a pathology present in one or both testicles.

**Epididymis:** The epididymis is a structure typically found on the posterior surface of the testis like a crescent. It is tender when squeezed. It is soft and uniform in character with the globus major (head) slightly larger and usually cephalad in position than the globus minor (tail).

**Cord:** The cord contains the blood vessels, vas deferens, fat and nerves. The vas is palpable as a distinct cord like structure usually present on the posterior portion of the cord.

### Transilluminate:

Transillumination is aided by a dark room and a bright light. This is done by placing the light source (flashlight) usually on the posterior portion of the scrotum and noting transillumination of light through the scrotum.

## DIFFERENTIAL DIAGNOSIS OF SCROTAL CONTENTS

**MASS:** A mass in the testicle proper suggest tumor (carcinoma) or fibroma of the tunica albuginea. This does not transilluminate. It is often not tender with palpation.

- **Mass surrounding the testicle:** Hydrocele. It is often quite firm. It transilluminates well unless it is quite large and then a very strong light source is needed.
- **Mass above the testicle:** Spermatocele or hydrocele of the cord. Both of these transilluminate well. The cord is palpable above the mass.
- **Hernia:** This usually is palpable above the testis. It is often reducible. Auscultation may reveal bowel sounds. The cord is **NOT** palpable above the mass.

**VARICOCELE:** A varicocele is a dilated mass of veins like varicose veins of the leg. They are almost always on the left side. They feel like a “bag of worms.” They disappear on supine position unless they are caused by a retroperitoneal mass or tumor.

- EPIDIDYMISS:**
- Epididymitis:** The epididymis is swollen and tender. Frequently the patient has an elevated temperature. The cord is usually not tender and often a normal testis is present. If the epididymitis is severe, distinction between the testis and epididymis is impossible.
- Fibroma:** Scarring of the epididymis from previous epididymitis. This is a nontransilluminable mass, usually small (1 cm.) in the epididymis (usually the head).
- Spermatocele:** A small or large non-tender mass of the epididymis, usually of the globus major and typically seen in older males. It transilluminates well usually.

**PROSTATE:** The prostate lies at the base of the bladder through which the urethra penetrates much like a hole in a doughnut. The posterior portion of the prostate is palpable through the anterior surface of the rectum. The posterior portion of the prostate is the site of origin for most prostatic carcinomas.

The prostate has some landmarks:

- **It is small in the new born period: 1 gram**
- **Larger in the postpubertal period: 8-10 grams**
- **With hypertrophy (benign adenomatous growth) it is large: 20 grams or more.**

Palpation is best done in the standing (bending at the waist) position or lateral decubitus position.

The gland palpates firm like the hyperthenar eminence of the hand when tense.

Palpate the size and estimate the size in centimeters: height from the rectal wall, width and depth.

Consistency: The consistency is firm like the hyperthenar eminence of the hand when firm.

Palpate the lateral margins, which should be distinct (with small glands it is often indistinct).

Palpate the median sulcus. It is typically absent with hypertrophy.

Hard masses need to be biopsied to make the diagnosis. The hard mass of a carcinoma palpates like the bone in the thumb. If carcinoma is present, it may extend outside the margins of the prostate and the lateral margin may be indistinct or the tumor may be palpable in the surrounding tissue or in the seminal vesicles.