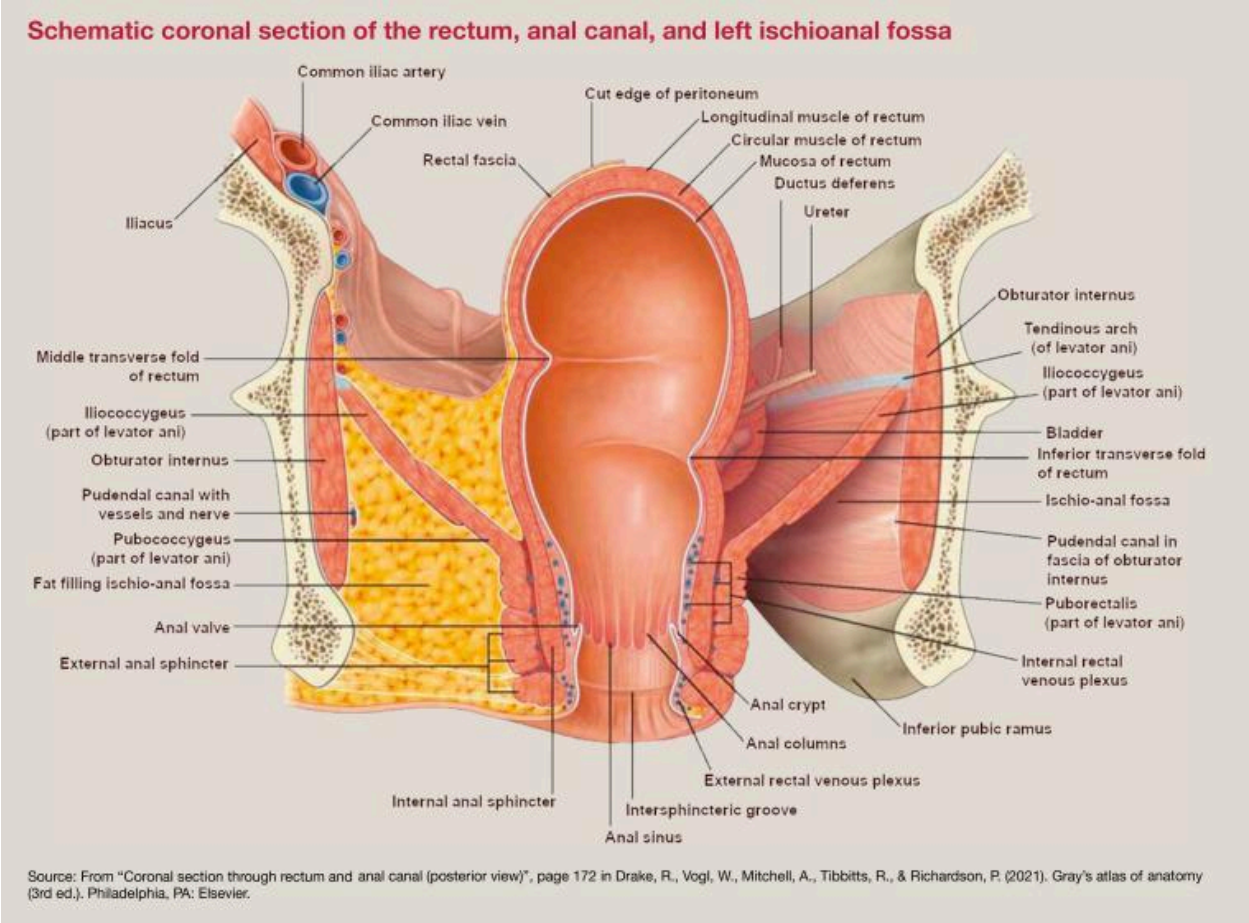
# DIGITAL RECTAL EXAM

1. Present the structure of the rectum-rectal canal from outside to inside
2. Skillfully perform anal-rectal examination and present the results obtained.
3. Respect the patient during the examination

## 1. Basic knowledge

### 1.1. Anatomy of the anus and rectal canal




Source: From "Coronal section through rectum and anal canal (posterior view)", page 172 in Drake, R., Vogl, W., Mitchell, A., Tibbitts, R., & Richardson, P. (2021). Gray's atlas of anatomy (3rd ed.). Philadelphia, PA: Elsevier.

*Fig 15.1 Anatomical structure of the rectum and anus*

The rectum is the part of the colon located in the pelvis, in front of the sacrum, behind the bladder, prostate, and seminal vesicles in men; uterus and vagina in women; about 15-20cm long, the bulging upper part is the rectal bulb, the narrow lower part is the anal canal. The internal sphincter is always in a state of contraction, except when passing stool or defecation; The external sphincter is a layer of striated muscle formed by the levator ani muscle. The submucosal plate contains venous plexuses, which often become dilated, causing hemorrhoids. The space between the anal columns above the dentate line is the anal sinus into which the anal glands drain, which is where anal fistula often occurs.

**1.2. anal - rectal examination in related diseases**

Anorectal diseases are very common in clinical practice. Examining this area, in addition to identifying pathologies in the anal canal and rectum, also detects pathologies of other organs such as the prostate, uterus, pelvis, sacrum, and monitoring the pouch of Douglas in the level. rescue. Examining the anus for a newborn baby is mandatory because anus is a common congenital malformation.

**2. Examination process**

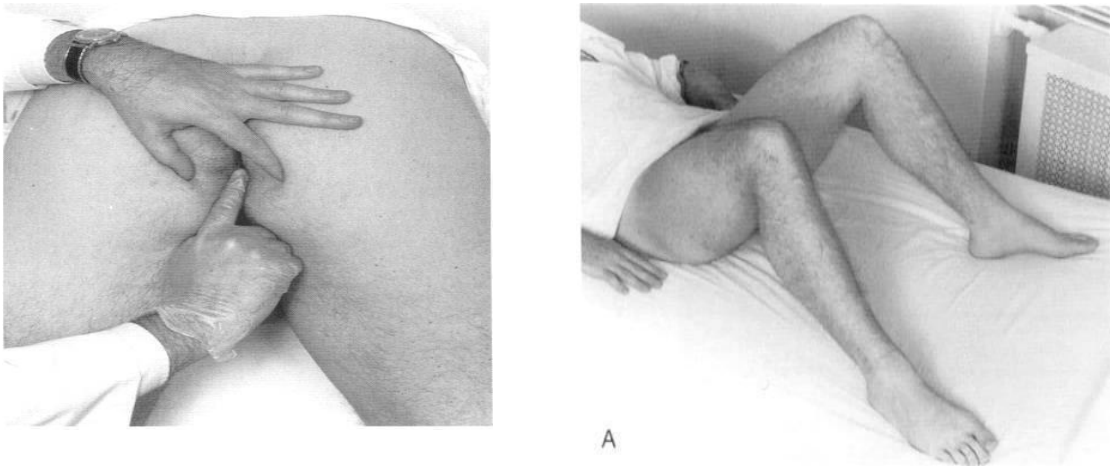
**2.1. Preparation**

- Examination tools include gloves and lubricating solution.

- The patient is explained thoroughly before the examination, absolutely not making the patient afraid or in pain. Must relieve pain in some cases (strangulated hemorrhoids, abscesses near the anus,...). There are three patient positions (Figure 13.2), depending on the purpose, choose the appropriate position:

+ Obstetrics and gynecology position: lying on your back, knees bent, legs apart (a).

+ Lie on one side, legs bent and pressed against the abdomen (b).




+ Prostrate position (knees - chest): buttocks high, thighs perpendicular to the examination table, knees wide, heels open, face and chest close to the table (c).

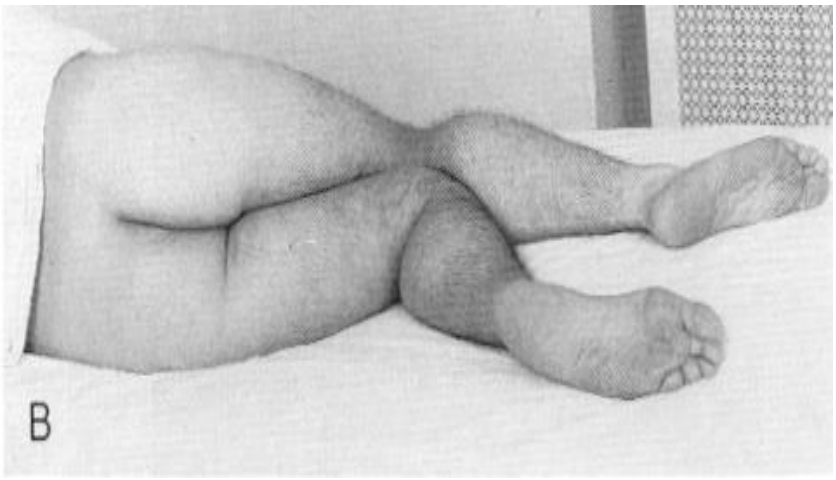



*Fig 13.2. Patient positions during anal-rectal examination. Source:*Barbara Bates (1995), *A guide to physical examination and history taking*

**2.2. Examination techniques**

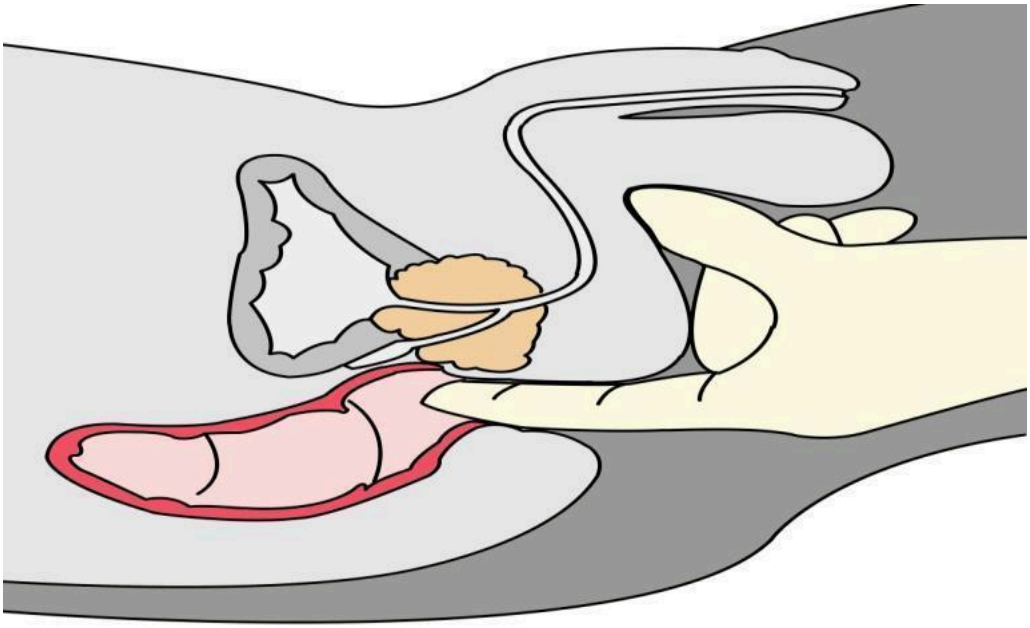


*fig 13.3. Technique of anal-rectal examination*

It is necessary to examine from the outside in and apply two basic skills: inspection and palpation.

***2.2.1. External examination***

**Technique: Wear gloves and apply lubricating solution to the tip of your index finger. Use your hand to cup the buttocks and ask the patient to push gently. Observe and test the anal reflex by gently touching the external anal opening. If there are symptoms of rectal prolapse, have the patient squat and push to examine the prolapse before examining the anorectum. Record the appearance of hair roots, skin color around the anus, prolapsed hemorrhoids, prolapsed mass in the anus (shape of mucosal folds, size, continuity with smooth skin layer), fistula (location , distance to anus, direction of probe).**

**Describe the results**

**- Normal: the anal hole is closed, the anal folds are even and radial, the hair follicles are smooth without redness and inflammation, the two ischial mounds are not swollen or painful. When testing the anal reflex, the external anal opening contracts and then relaxes.**

**- Some abnormalities: prolapsed hemorrhoids, rectal anal prolapse, fistula, perianal folliculitis, protruding tumor, ischiorectal fossa abscess,...**

***2.2.2. Examine the anal canal***

**Technique**

**- Assess the external anal opening: apply the distal phalanx of the index finger to the external anal opening, causing the hole to contract and then relax.**

**- Assess the anal sphincter: Slowly insert the second finger into the anal lumen, just past the outer anal opening, the inter-sphincter groove can be felt, and if inserted deeper, the finger feels like it is being tightened. The patient may be asked to frown or contract the anus to assess the activity of the external sphincter. When the hand is 3-4cm deep, it feels like the finger is entering an empty cavity. At that time, the finger just passes the inner limit of the anal canal, called the hole in the anal canal.**

**- Assess the anal sphincter mass: Insert finger II deeper, slightly bend the distal phalanx, coordinate with finger I to massage from the outside, feel the entire circumference of the anal sphincter mass between the two fingers.**

**Result description: Normally the sphincter is full and soft, tightening tightly around the finger.**

**2.2.3. Rectal examination**

**Technique**

**- Assess the rectal wall: Rest your elbow on the bed surface as a fulcrum (fingers, hands and forearms kept straight), insert the tip of the second finger deeper and rotate gently around the anorectal lumen. Record rectal mucosa and rectal shadow status.**

**- Assess the ischial fossa: Apply finger II to the front of the coccyx and both sides of the ischiorectal fossa, combining with finger I from the outside to manipulate.**

**- Peritoneal stimulation sign: Use second finger to stimulate the anterior wall of the rectum.**

**- Evaluate the prostate (in men): Use the second finger to feel at the 12 o'clock position to find the prostate, note the surface, density, size, condition of the median longitudinal groove, nuclei and pain. You can insert your index finger deeper to check above the prostate and feel the seminal vesicles.**

**- Uterus and adnexa (in women): Rotate the second finger to both sides of the rectal wall and identify the structures in the pelvis. Combine with the other hand (gently pressing on the abdominal wall) to more fully assess the neck and body of the uterus, ovaries, and pouch of Douglas.**

**- Remove gloves: Record feces, blood, and fluid on the gloves.**

**Describe the results**

**- Normal: The rectal wall has a thin and flat structure, the mucosa is smooth and smooth. Both sides of the ischiorectal fossa are even and soft. The prostate is painless, soft like the female tissue of the hand, 4cm wide, 3cm high and 2.5cm thick, with a longitudinal groove in the middle. There are no signs of peritoneal irritation, the pouch of Douglas is a thin horizontal fold.**

**- Some abnormalities:**

**+ The prostate surface is rough, rough, and has hard nuclei found in prostate cancer. If there is a tumor, describe location, density, size, shape, mobility, surface,...**

**+ Douglas sound: There are signs of peritoneal irritation. + Blood, fluid, feces on gloves: Record color, status, smell,...**

**Note: The location of the lesion is determined by the distance from the lesion to the external anal opening and the location on the anorectal wall according to the time zone (1 o'clock, 2 o'clock,..., 12 o'clock) according to the position. obstetric position.**

**Evaluation question**

**1. Anorectal examination application:**

**a. Detect diseases in the anorectal canal**

**b. Prostate**

**c. Uterus**

**d. All are correct**

**2. Anal-rectal examination position:**

**a. Obstetric position**

**b. Side lying position**

**c. Prostrate posture**

**d. All are correct**

**3. Anal-rectal examination applies the following skills:**

**a. Look, listen**

**b. Look, touch**

**c. Touch, knock**

**d. Touch, listen**

**4. Examine the anal canal to evaluate:**

**a. External anal opening**

**b. Anal sphincter**

**c. A and B are correct**

**d. Sentences a and b are incorrect**

**5. Rectal examination to evaluate:**

**a. Rectal wall**

**b. Sitting hole**

**c. Prostate (male)**

**d. All are correct**

**Checklist**

| Order | Content | Low expectation | Meet Expect | Exceed Expect |
|---|---|---|---|---|
| **Preparation** | | | | |
| 1 | Explain to the patient before examination | | | |
| 2 | Tools: gloves, lubricating oil | | | |
| 3 | Position of patient as required | | | |
| **Examination techniques** | | | | |
| 4 | Inspection & palpation for external exam | | | |
| 5 | Wear gloves, lubricate the index finger and insert it into the anus | | | |
| 6 | Clean and help the patient get out of bed | | | |
| 7 | Full description of symptoms in the order of examination | | | |

| | | | | |
|---|---|---|---|---|
| 8 | Attitude of the physician during the examination: Gentle manipulation, respect of the patient | | | |