**Gastrointestinal system examination**

1. **Introduce yourself and ask for patient’s permission**
2. **Position of the patient**: the patient should lie flat with one pillow under his head, or using the couch with the back at 15-200 . Patient’s arms by his side, legs shouldn’t be crossed. You may flex the hips and knees to relax abdominal wall muscles if you had to.
3. **Exposure**: ideally should be from nipples to mid thighs. However, to respect patient’s sensitivity, we expose from xiphisternum to symphysis pubis. Keep the chest and legs covered.

**General examination**

The patient is lying in bed (comfortably, looks in pain, distressed,…). He is conscious and oriented to time, place and person (or disoriented if encephalopathic). If the patient was cachectic or obese, comment on it.

Vital signs: you should measure BP and PR supine and erect in case of diarrhea, vomiting or GI bleeding to assess for postural changes.

BMI should also be measured

**Hands**

Clubbing, koilonychia (in IDA), leukonychia (in hypoalbuminemia), palmar erythema (centrally spared), Dupuytren’s contractures, tar staining, muscle wasting, flapping tremors

**Face**

Pallor, jaundice, angular stomatitis, glossitis, aphthous ulcers, parotid swelling, fetor hepaticus, dental hygiene, alcohol smell

**Lymph nodes**

Cervical, axillary, inguinal, left supraclavicular (virchow’s LN)

**Chest**

Spider nevi, gynecomastia, breast atrophy in females, scratch marks, normal or abnormal hair distribution according to gender

**Abdominal examination**

* **Inspection:** 1)start from the foot of the bed. Comment on the shape of abdomen (distended, flat, scaphoid), flanks if full (ascites) or not, umbilicus position and shape (normally centrally located and inverted), movement of the abdomen with respiration, abnormal bulges

2)From the right side of the patient: scars, bruises, striae, skin lesions, dilated veins, caput medusa, spider nevi, stoma, visible pulsation, visible peristalsis

(in case of dilated veins, determine the direction of blood flow)

3)Ask the patient to cough and look at inguinal orifices for hernias

4)Ask the patient to set up and notice any divarication of recti

* **Palpation:** ask the patient if he has any pain and to localize it so that you avoid starting your palpation in that area. Make sure your hands are warm. Always watch the patient’s eyes for any sign of pain during palpation.
* **Light palpation**: gently feel all nine areas with some rotational movement of the fingers, your hand should stay in contact with the patient’s abdominal wall during shifting from one area to the other. Light palpation helps you gain the patient’s confidence, feel the abdominal wall tone, and examine for superficial masses or tenderness.
* **Deep palpation** of the same areas for masses and tenderness. If you feel any mass, describe it (shape, size, consistency, mobility, location) and determine if it is within the abdominal wall or deep to it by contracting abdominal wall muscles.
* **Palpation for organomegaly:**
* **Liver:** start from the right iliac fossa and go upwards 1 cm at a time until you feel the liver’s edge or reach the costal margin. Ask the patient to breathe deeply from his mouth while he is facing away. Feel for the liver edge as it descends during inspiration.
* **Spleen:** start from right iliac fossa diagonally towards the left hypochondrium, moving 1 cm at a time with each breath until you reach the left costal margin. Roll the patient on his right side and repeat the maneuver while placing your left hand behind the patient’s left lower ribs, pushing the ribcage forward.
* **Kidneys:** bimanual examination and ballotment
* **Percussion:** to examine the liver span, percuss downwards starting from the right 2nd intercostal space midclavicular line while the patient holds his breath in expiration until you hear dullness which indicates the upper border of the liver. Measure the distance in cm between the upper border and the liver edge that you felt during palpation or -if it wasn’t palpable- the costal margin. Normal liver span=6-12 cm.

Percuss over the spleen in two areas: left hypochondrium and left mid axillary line between ribs 9-11.

Examine for renal angle tenderness

Examine for urinary bladder dullness by percussing from the umbilicus downwards

Examine for ascites: transmitted thrill, shifting dullness

* **Auscultation:** place the diaphragm of the stethoscope 2 cm above and lateral to the umbilicus to examine for renal artery bruit; 2 cm below and lateral to the umbilicus to examine for iliac artery bruit; epigastric area for abdominal aortic bruit; liver and spleen areas for bruit, venous hum or friction rub; to the right of the umbilicus or in the right iliac fossa for bowel sounds

Listen for 2 whole minutes before concluding that the bowel sounds were absent

* **Succussion splash:** explain the procedure to the patient, then hold his pelvis with both of your hands and shake his abdomen while listening for splashing sound (normal within 4 hours of a meal).
* **PR examination** (just mention that you have to examine it)
* **Lower limb examination** for pitting edema, erythema nodosum or other skin lesions, hair loss, femoral artery bruit
* **The back** (for edema)
* **Genitalia** (just mention it)