

Ureteric colic ('renal colic')

- **Site** – unilateral, in the renal angle and flank area
- **Onset** – sudden
- **Character** – usually very severe and sustained, may vary cyclically in intensity
- **Radiation** – may radiate to the iliac fossa, the groin and the genitalia/ testes
- **Associated** features – patient is usually **restless** and **nauseated**, and often vomits
- **Timing** – may last for several hours, episodic
- **Exacerbating/relieving** factors – analgesia
- **Severity** – often very severe .
- **Similar** – distinguish from intestinal colic or biliary pain, appendicitis, torsion of an ovarian cyst, ruptured ectopic pregnancy.



9.11 Urinary incontinence: points to cover in the history

- Age at onset and frequency of wetting
- Occurrence during sleep (enuresis)
- Any other urinary symptoms
- Provocative factors, e.g. coughing, sneezing, exercising
- Past medical, obstetric and surgical histories
- Number of pads used. Are they damp, wet or soaked?
- Impact on daily living



9.6 Causes of urinary incontinence

- Pelvic floor weakness following childbirth
- Pelvic surgery or radiotherapy
- Detrusor overactivity
- Bladder outlet obstruction
- Urinary tract infection
- Degenerative brain diseases and stroke
- Neurological diseases, e.g. multiple sclerosis
- Spinal cord damage



9.2 Features of bladder outlet obstruction due to prostatic hyperplasia

- Slow flow
- Hesitancy
- Incomplete emptying (the need to pass urine again within a few minutes of micturition)
- Dribbling after micturition
- Frequency and nocturia (due to incomplete bladder emptying)
- A palpable bladder



9.7 Abnormalities of urine colour

Orange-brown

- Conjugated bilirubin
- Rhubarb, senna
- Concentrated normal urine, e.g. very low fluid intake
- Drugs: sulfasalazine

Red-brown

- Blood, myoglobin, free haemoglobin, porphyrins
- Beetroot, blackberries
- Drugs: rifampicin, rifabutin, clofazimine, entacapone

Brown-black

- Conjugated bilirubin
- Drugs: L-dopa, metronidazole, nitrofurantoin, chloroquine, primaquine
- Homogentisic acid (in alkaptonuria or ochronosis)

Blue-green

- Drugs/dyes, e.g. propofol, fluorescein, triamterene



9.9 Causes of proteinuria

Renal disease

- Glomerulonephritis
- Diabetes mellitus
- Amyloidosis
- Systemic lupus erythematosus
- Drugs, e.g. gold, penicillamine
- Malignancy, e.g. myeloma
- Infection

Non-renal disease

- Fever
- Severe exertion
- Severe hypertension
- Burns
- Heart failure
- Orthostatic proteinuria*

*Occurs when a patient is upright but not lying down; the first morning sample will not show proteinuria.



9.10 Causes of transient proteinuria

- Cold exposure
- Vigorous exercise
- Febrile illness
- Abdominal surgery
- Heart failure



9.12 Some hereditary and congenital conditions affecting the kidneys and urinary tract

Name	Principal findings	Commonly associated abnormalities	Most common form of inheritance
Adult polycystic kidney disease	Bilateral enlarged kidneys, sometimes massive, with nodular surface	Liver cysts Intracranial berry aneurysms Mitral or aortic valve abnormalities	Autosomal dominant
Alport's syndrome	Haematuria, proteinuria, renal failure	Nerve deafness Lens and retinal abnormalities	X-linked dominant
Medullary sponge kidney	Tubular dilatation; renal stones	Other congenital abnormalities, e.g. hemihypertrophy, cardiac valve abnormalities, Marfan's syndrome	Congenital, rarely familial
Nail-patella syndrome	Proteinuria Renal failure (30%)	Nail dysplasia, patellar dysplasia or aplasia	Autosomal dominant
Cystinosis	Tubular dysfunction; renal failure	Rickets, growth retardation, retinal depigmentation and visual impairment	Autosomal recessive
Tuberous sclerosis complex	Renal cysts Renal angioliomata	Seizures, mental retardation, facial angiofibromata, retinal lesions	Autosomal dominant
Prune-belly syndrome	Dilated bladder and urinary tract; urinary infection and renal failure	Absent abdominal wall musculature	Sporadic mutation

Examination sequence

Assess the patient's **general appearance** and conscious level.

- Look for **fatigue, pallor, breathlessness, uremic** complexion
- Measure the **temperature** + VS (blood pressure (postural changes) , Pulse
- Look at the eyes for anemia (paleness of conjunctiva) + fundoscopy
- Note any bruising or excoriation.
- Examine the hands for nail changes, vasculitis rash
- Look for a coarse **flapping tremor**
- Smell the patient's breath for **uremic fetor**.
- Assess **hydration** by checking skin turgor, eyeball tone, JVP and presence of oedema , dry mucus membrane , weight assessment , fluid balance chart

4 Face and neck

- Yellow complexion*
- Pallor
- JVP
- Uraemic foetor*
- Gingival hyperplasia

5 Eyes

- Hypertensive retinopathy
- Diabetic retinopathy
- Band keratopathy

6 Lung bases

- Crackles in fluid overload
- Hyperventilation (acidaemia)

7 Heart

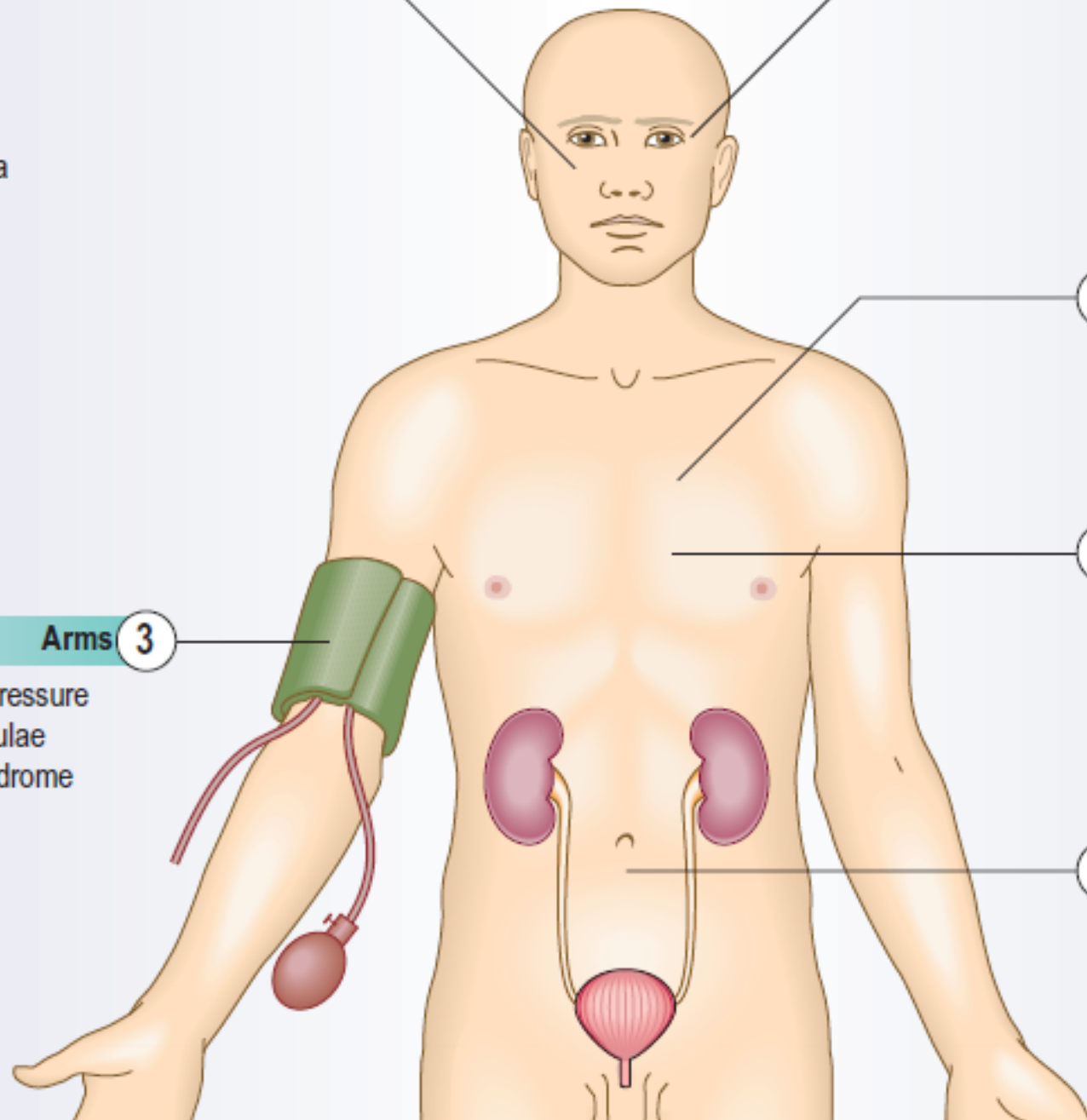
- Extra heart sounds
- Pericardial friction rub*

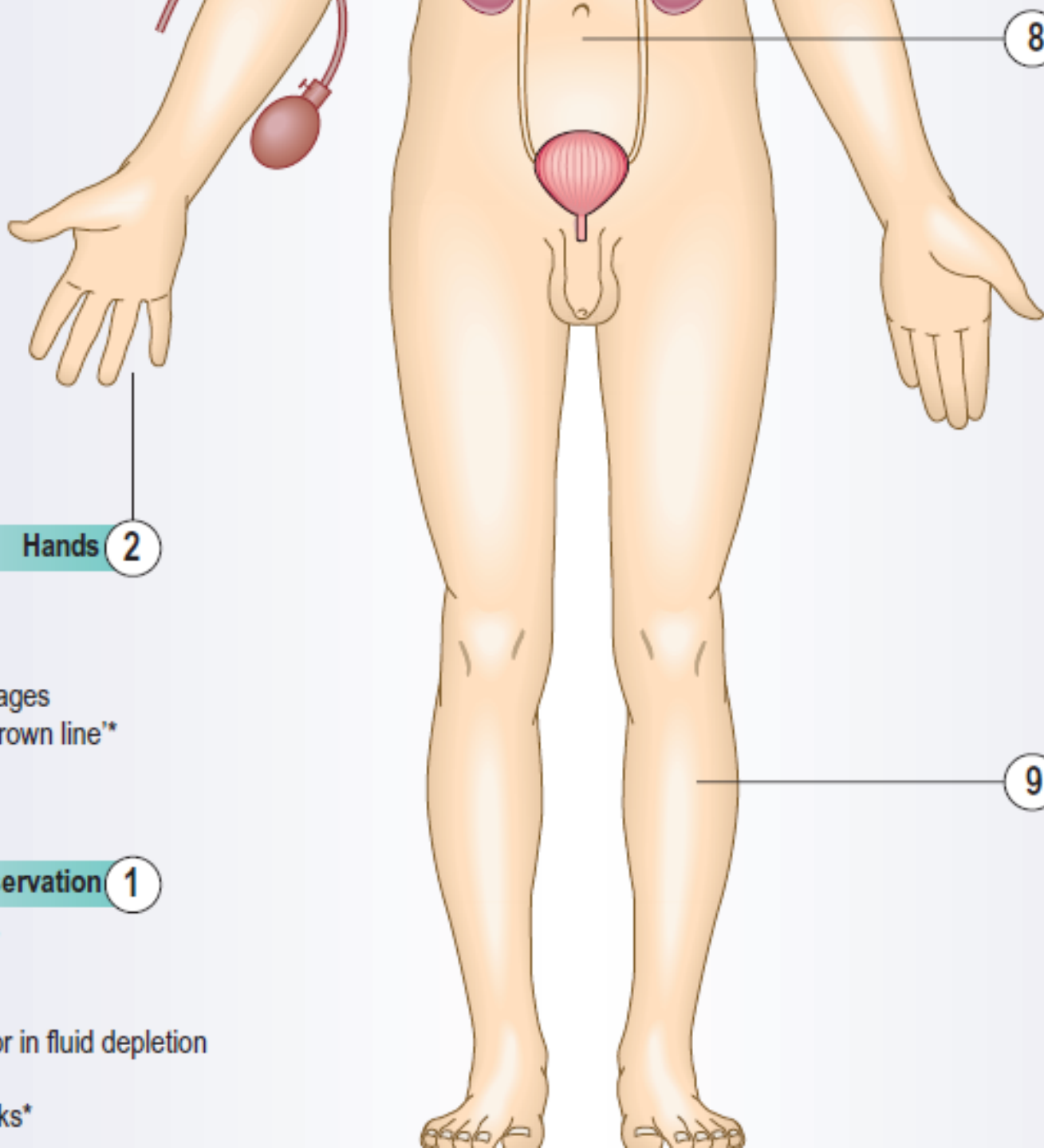
3 Arms

- Pulse and blood pressure
- Arteriovenous fistulae
- Carpal tunnel syndrome

8 Abdomen

- Inspect scars
- Palpate kidneys bladder sacral oedema





8 Abdomen

- Inspect scars
- Palpate kidneys bladder sacral oedema
- Auscultate renal arterial bruits
- Rectal examination prostate enlargement

Hands 2

- Asterixis
- Nail features
 - Beau's lines
 - splinter haemorrhages
 - pigmentation – 'brown line'*
 - Muehrcke's lines

General observation 1

- Pallor and tiredness
- Breathlessness
- Hydration
 - reduced skin turgor in fluid depletion
- Bruising*
- Itching, scratch marks*

9 Legs

- Oedema
 - hypoproteinaemia
 - fluid overload
- Peripheral neuropathy*

Radiation & Referred pain

In cases of acute cholecystitis, the pain classically radiates to the shoulder or interscapular region. *(Extension of pain while the pain at original site persists)*

Referred pain would be when a patient has pain only in the shoulder **but not in the RUQ.**
(Pain is felt at a distance from the source while no pain felt at site of disease)

Migration of pain typically seen with acute appendicitis *(Pain is felt at one site in the beginning then pain shifts to another site and pain at original site disappears)*

Colicky pain????

- Often lasts for a short time (seconds/ minutes)
- Comes and goes as **spasm**
- **between spasms the patient is usually pain-free.**
- **The pain itself is severe and may be helped by moving around or drawing the knees up towards the chest.**
- Arises from hollow viscus (Intestinal obstruction)
- **Biliary colic** is a misnomer
- **Renal colic** is **not** a misnomer & is accurately described

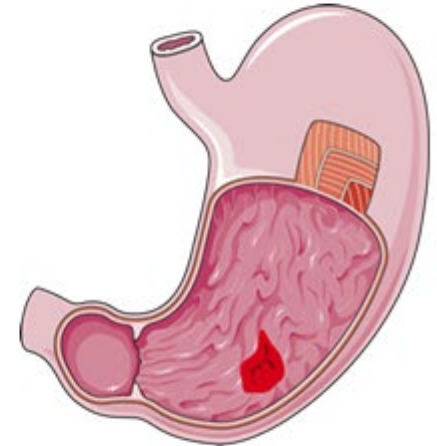
Exacerbating and relieving factors

- Worsens with fatty meals? Gallstones, pancreatitis
- Worsens with eating? GU, mesenteric ischemia
- Worsens with fasting and improves initially with eating? DU
- Worsens with movement or coughing? Peritonitis (lying still!)
- Improves with movement or drawing knees up to the chest? Colic (writhe)
- Improves with leaning forward? Pancreatitis
- Improves with vomiting? Intestinal obstruction
- Improves with defecation? Colitis
- **Ask about analgesia**



Associated symptoms

- Mouth ulcers
- Dysphagia/ odynophagia
- Heartburn
- Nausea/ vomiting (*common but non-specific symptoms*)
- Anorexia
- Change in bowel habits; Diarrhea/constipation
- Bleeding (Hematemesis, coffee ground emesis, hematochezia, melena)
- Jaundice (Ask about dark urine, pale stool and itching)
- Is it an infectious process? Fever, chills and rigors
- Is it malignancy? Weight loss, generalized weakness and loss of appetite
- Are there other non-GI causes of abdominal pain???? MI, pneumonia, pyelonephritis, lower UTI, testicular torsion, ruptured ovarian cyst
- **Abdominal pain outside the box:** DKA, herpes zoster, FMF



Biliary colic is a **misnomer**
 & would be more accurately referred to as **Biliary Pain!**
Because the pain stays constant for up to several hours

6.2 Diagnosing abdominal pain				
Disorder				
	Peptic ulcer	Biliary colic	Acute pancreatitis	Renal colic
Site	Epigastrium	Epigastrium/right hypochondrium	Epigastrium/left hypochondrium	Loin
Onset	Gradual	Rapidly increasing	Sudden	Rapidly increasing
Character	Gnawing	Constant	Constant	Constant
Radiation	Into back	Below right scapula	Into back	Into genitalia and inner thigh
Associated symptoms	Non-specific	Non-specific	Non-specific	Non-specific
Timing				
Frequency/periodicity	Remission for weeks/months	Attacks can be enumerated	Attacks can be enumerated	Usually a discrete episode
Special times	Nocturnal and especially when hungry	Unpredictable	After heavy drinking	Following periods of dehydration
Duration	1/2–2 hours	4–24 hours	>24 hours	4–24 hours
Exacerbating factors	Stress, spicy foods, alcohol, non-steroidal anti-inflammatory drugs	Eating – unable to eat during bouts (Fatty food)	Alcohol Eating – unable to eat during bouts	–
Relieving factors	Food, antacids, vomiting	–	Sitting upright *	–
Severity	Mild to moderate	Severe	Severe	Severe

Renal colic is **NOT a misnomer**.
 It's accurately described & is typically **intermittent**.

Typical pain of acute pancreatitis improves by **leaning forward**

If dysphagia is experienced high in the neck, consider tumours of the pharynx or larynx or extrinsic compression from a mass lesion such as a thyroid goitre.



GI bleeding

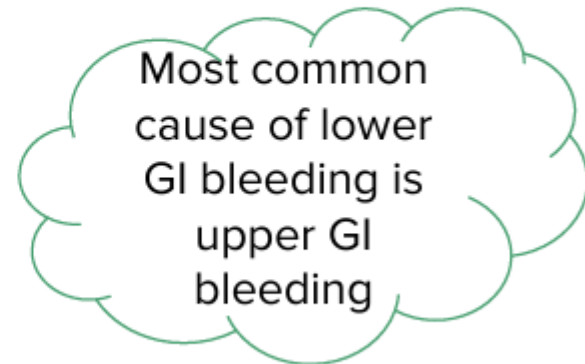
Upper GI bleeding

Peptic ulcer disease is the most common cause

(Mallory-Weiss syndrome)

esophagogastric varices)

Erosive gastritis



Most common cause of lower GI bleeding is upper GI bleeding

Lower GI bleeding

Diverticular disease

Colonic angioectasia

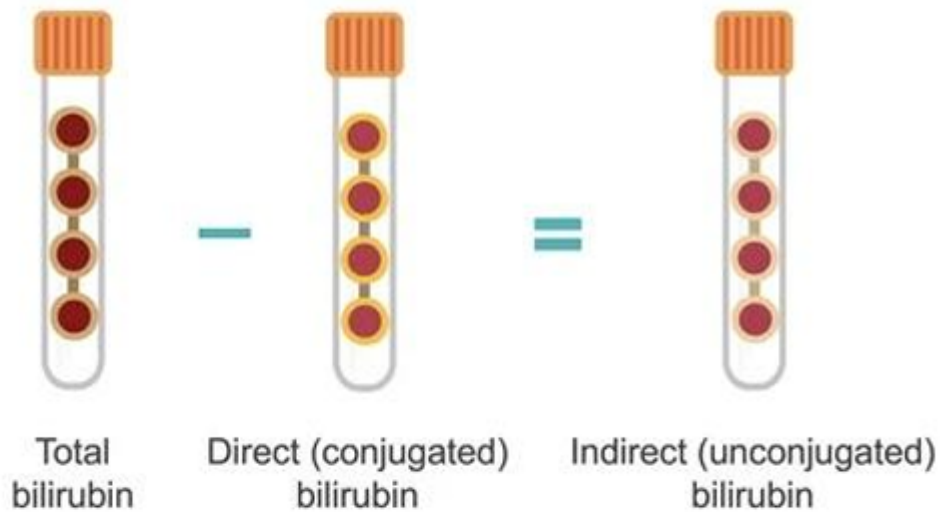
Colorectal cancer

Colon polyp

Inflammatory bowel disease (UC)

Ischemic colitis

Anal fissure and hemorrhoids



Direct : total bilirubin ratio:

< 20% (Indirect)

20 - 50% (Mixed)

> 50% (Direct)

S O C R A T E S:

S: under the tongue, sclera, skin

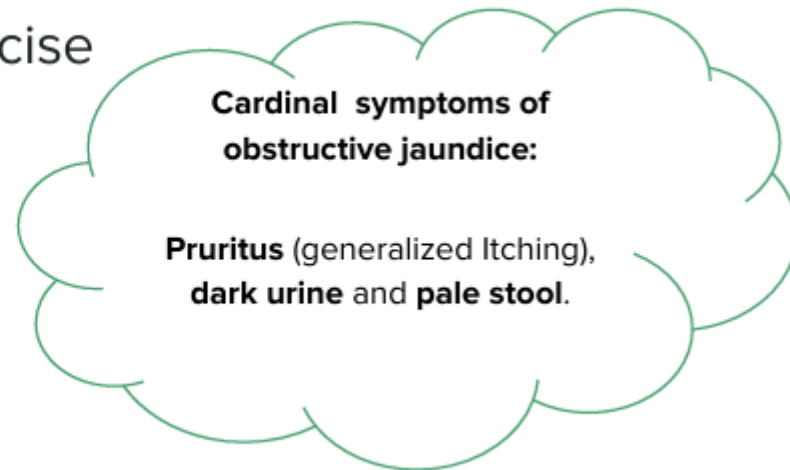
O: Sudden vs gradual

C:

A: **Pale stool, dark urine, pruritus**

T:

E: fasting or exercise



Abdominal pain or back pain

(Painless obstructive jaundice suggest malignancy while obstructive jaundice with pain is likely due to gallstones)

Fever, chills and rigor

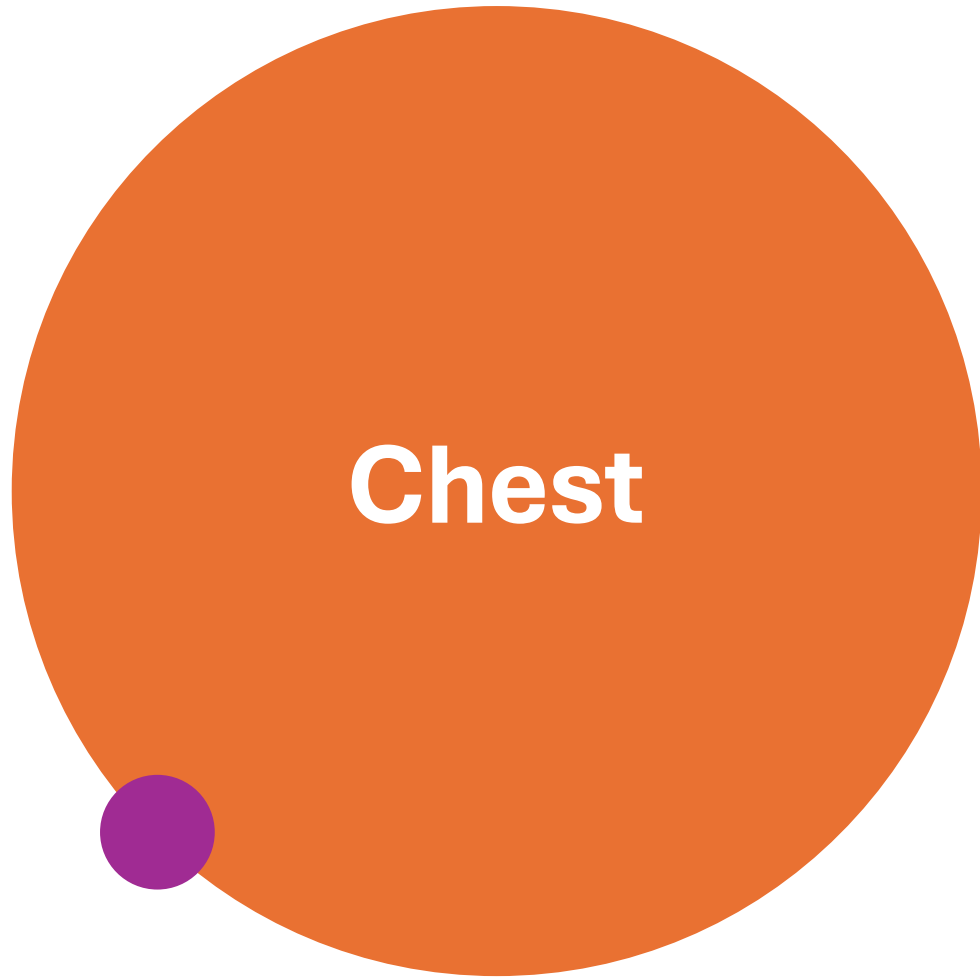
Weight loss and appetite

GI bleeding (cirrhosis)

Symptoms of anemia

Risk factors

- travel history
- immunisations
- use of illicit or intravenous drugs
- sexual history
- previous blood transfusions
- recently prescribed drugs.
- Skin tattooing
- Past medical history (pancreatitis)
- Past surgical history (Biliary surgery)
- Family history (Wilson's disease, hemochromatosis)



Gynecomastia

Spider nivae

Breast atrophy

Scratch marks
(Generalized itching)

Hair distribution



Inspection

From the end of the bed

- 1. Contour.**
- 2. Symmetry.**
- 3. Umbilicus.**
- 4. Abdominal respiration**
(absent in peritonitis >> thoracic respiration).

NORMAL ABDOMEN

- ✓ **Flat** or slightly scaphoid.
- ✓ **Symmetrical**.
- ✓ Respiration is principally **Diaphragmatic** [at rest];
The abdominal wall moves out and the liver, spleen and kidneys move downwards during inspiration.
- ✓ **Umbilicus** is usually **Inverted** & centrally located

Inspection

From right of the patient

1. **Hair distribution.**
2. **Stomas.**
3. **Scars.**
4. **Skin Lesions.**
5. **Bruising.**
6. **Visible Veins (Caput Medusa).**
7. **Visible Masses.**
8. **Visible Pulsation.**
9. **Visible Peristalsis.**

2 Special maneuvers:

☐ **COUGH:**

- Look for Hernia Orifices
- Increase pain in Peritonitis.

(Dumphy's sign)

☐ **RAISE HEAD**

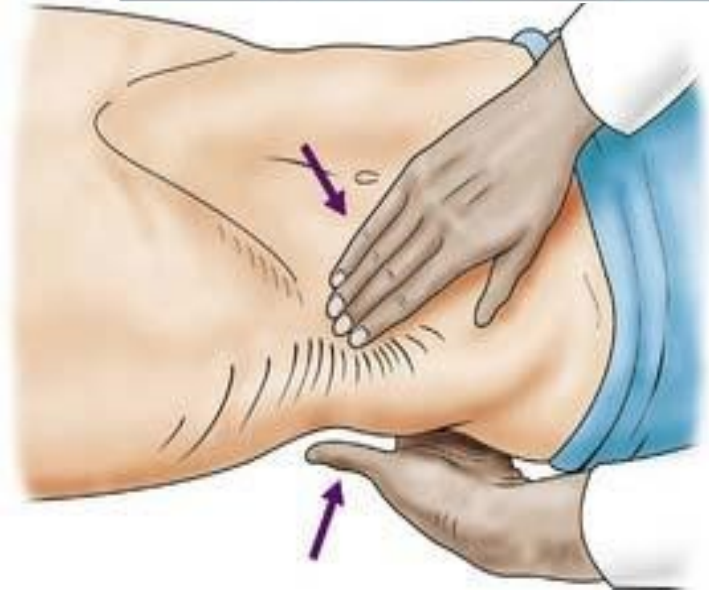
- Look for Divarication of Recti





Percussion

- Normal note is **Tympanic**.
- Over mass or fluid gives **Dull** sound.
- Percuss **All 9 Quadrants**
- Special tests for **Enlarged organs & Ascites**.



- **Bimanual exam.**
- **Renal angle tenderness.**
- **Ballotment**

SAAG

Serum albumin – ascites albumin

SAAG \geq 1.1 g/dl

Cirrhosis
EtOH hepatitis
Hepatic mets
Portal vein thrombosis
Budd-Chiari Syndrome
HF/Constrictive pericarditis

SAAG $<$ 1.1 g/dl

Pancreatitis
Nephrotic Syndrome
Peritoneal TB
Peritoneal carcinomatosis

6.15 Causes of ascites

Diagnosis

Comment

Common

Hepatic cirrhosis with portal hypertension

Transudate

Intra-abdominal malignancy with peritoneal spread

Exudate, cytology may be positive

Uncommon

Hepatic vein occlusion (Budd–Chiari syndrome)

Transudate in the acute phase

Constrictive pericarditis and right heart failure

Check jugular venous pressure and listen for pericardial rub

Hypoproteinaemia (nephrotic syndrome, protein-losing enteropathy)

Transudate

Tuberculous peritonitis

Low glucose content

Pancreatitis, pancreatic duct disruption

Very high amylase content



Others

1. **External Genitalia.**
2. **Hernial orifices.**
3. **DRE**
4. **Back**
5. **Lower limbs**
 - *Edema,*
 - *Loss of hair,*
 - *Pyoderma gangrenosum,*
 - *Auscultate over femoral art.*

6.16 Causes of abnormal stool appearance

Stool appearance	Cause
Abnormally pale	Biliary obstruction
Pale and greasy	Steatorrhea
Black and tarry (melaena)	Bleeding from the upper gastrointestinal tract
Grey/black	Oral iron or bismuth therapy
Silvery	Steatorrhea plus upper gastrointestinal bleeding, e.g. pancreatic cancer
Fresh blood in or on stool	Large bowel, rectal or anal bleeding
Stool mixed with pus	Infective colitis or inflammatory bowel disease
Rice-water stool (watery with mucus and cell debris)	Cholera