Indice

- Semeiotica addominale
- La sala operatoria
- Valutazione preoperatoria
- Complicanze in chirurgia
- Il reparto di chirurgia

Indice

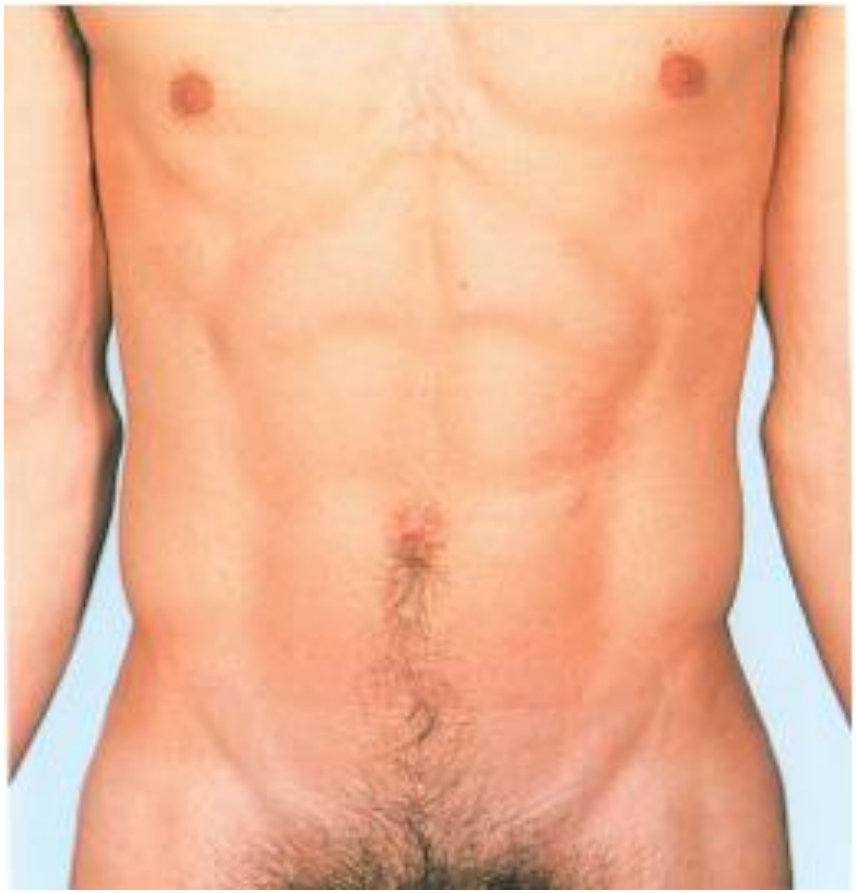
Learning points

- ✓ Learn **anatomical landmarks**
- ✓ Learn the main points from the patient's **history taking**
- ✓ Learn main abdominal **symptoms**
- ✓ Learn how to do **abdominal examination**
- ✓ Learn how to do **rectal examination**

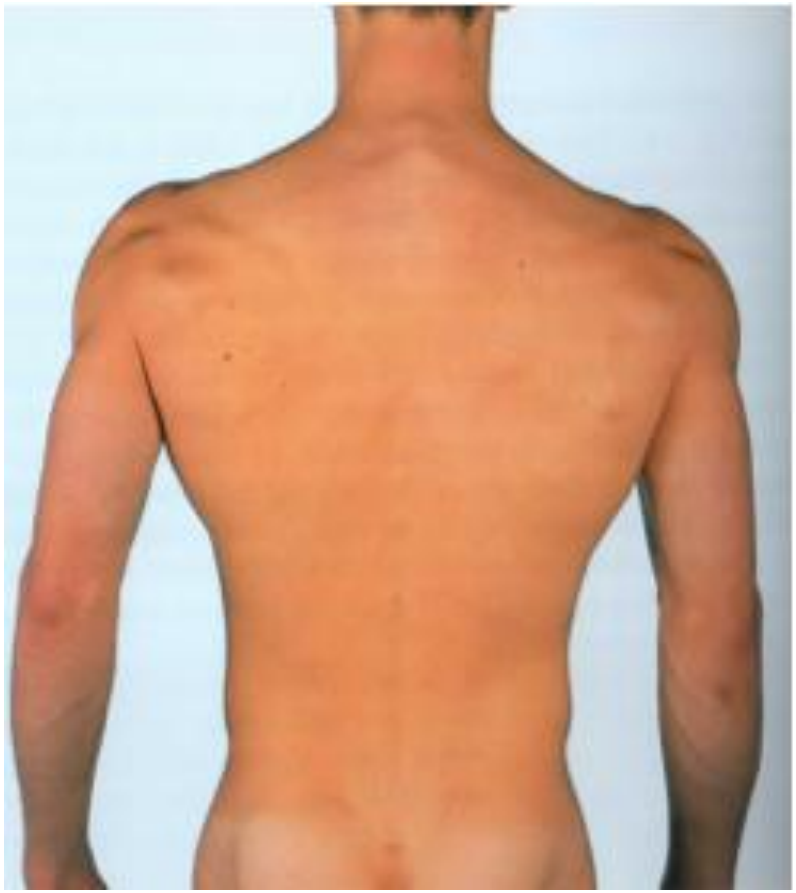
Anatomical landmarks

The knowledge of the anatomy is always of paramount importance – especially for the ‘belly’. The abdomen contains many different organs, of which anatomy must be known.

The abdomen

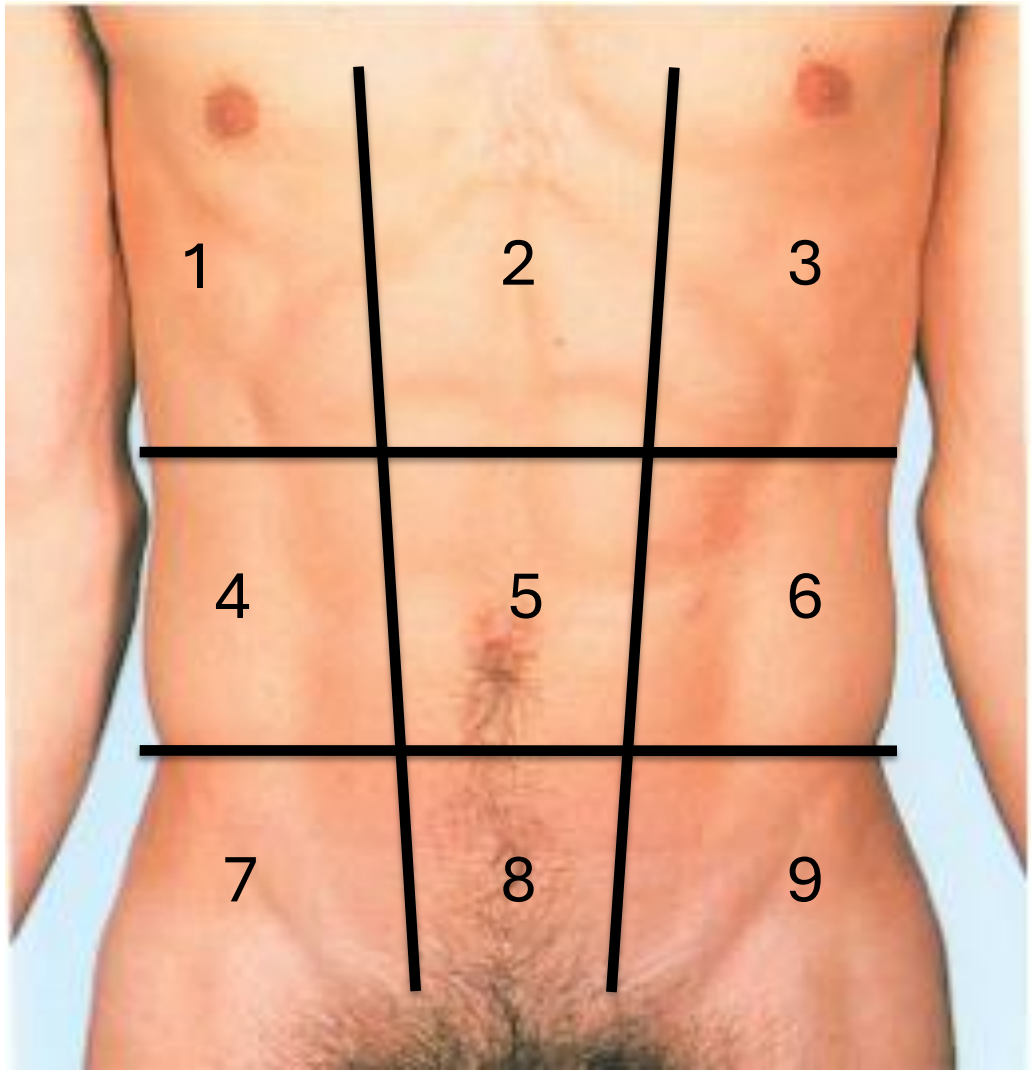


Anterior

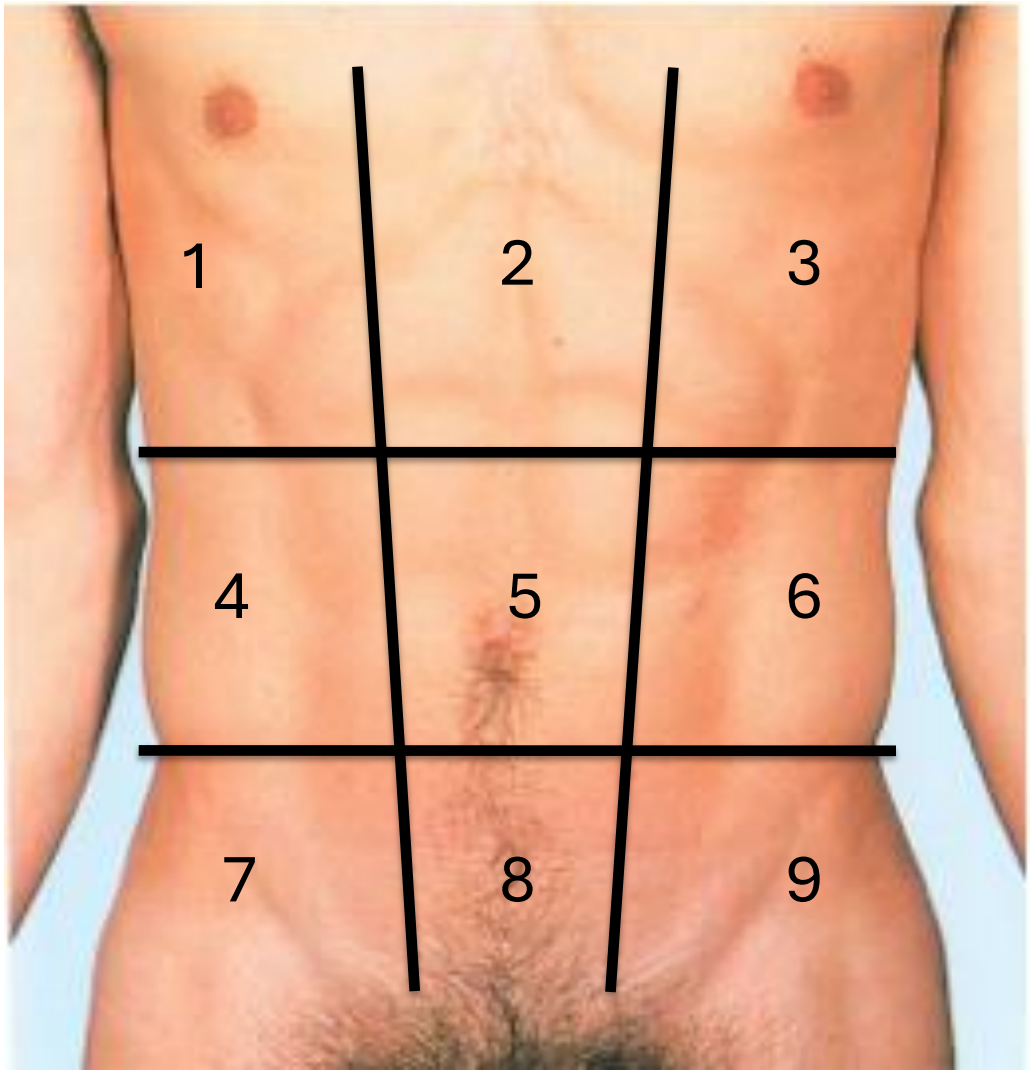


Posterior

The abdomen

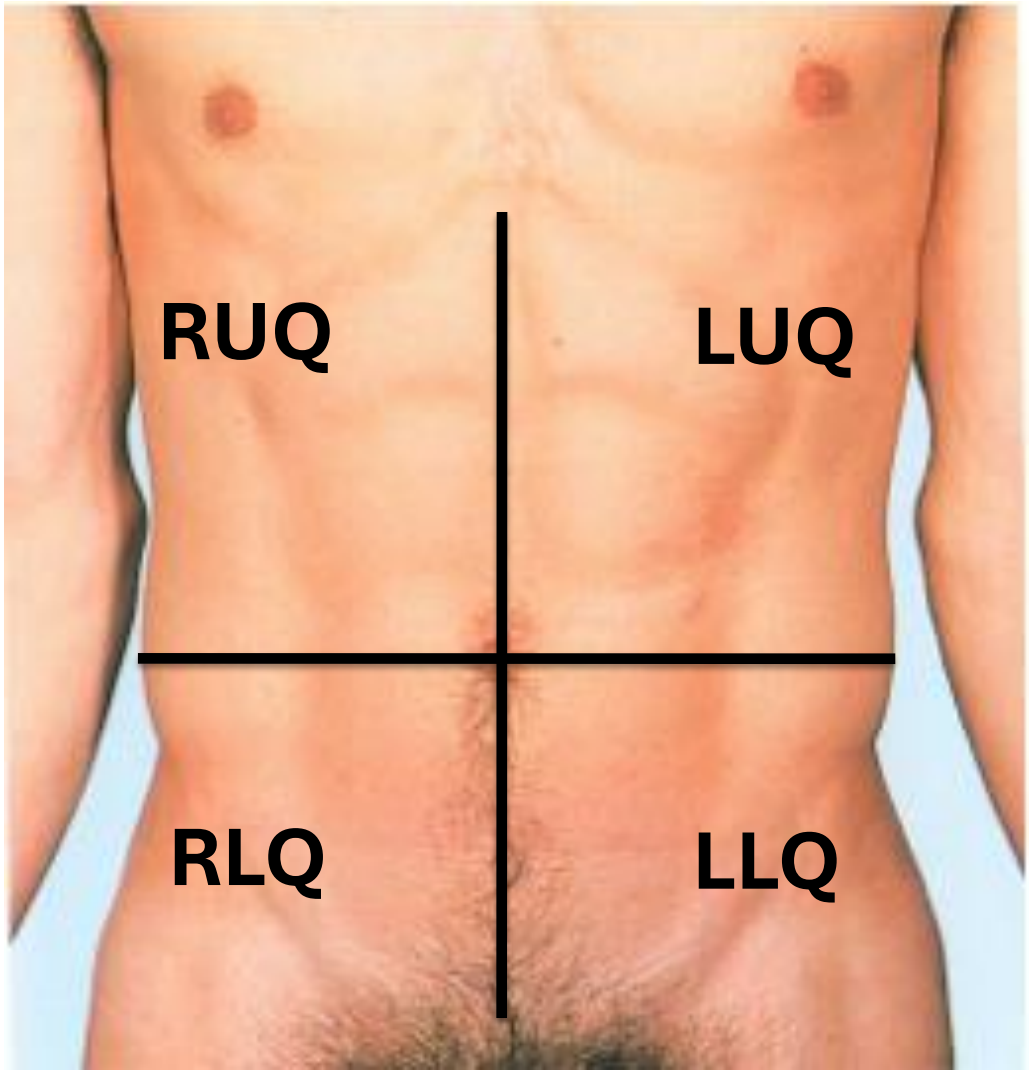


The abdomen

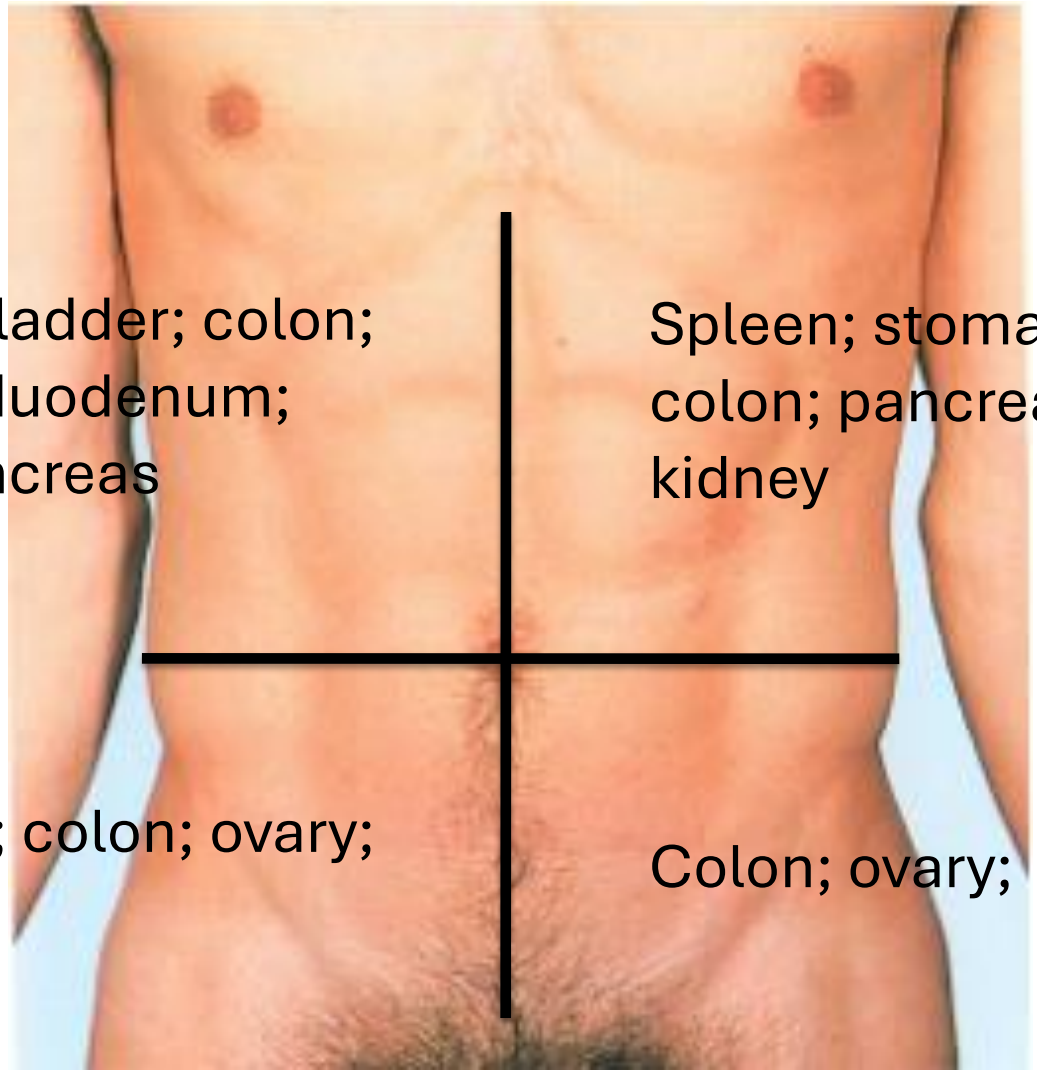


1. Right hypocondrium
2. Epigastrium
3. Left hypocondrium
4. Right lumbar/flank
5. Mesogastrium
6. Left lumbar/flank
7. Right iliac
8. Hypogastrium
9. Left iliac

The abdomen



The abdomen



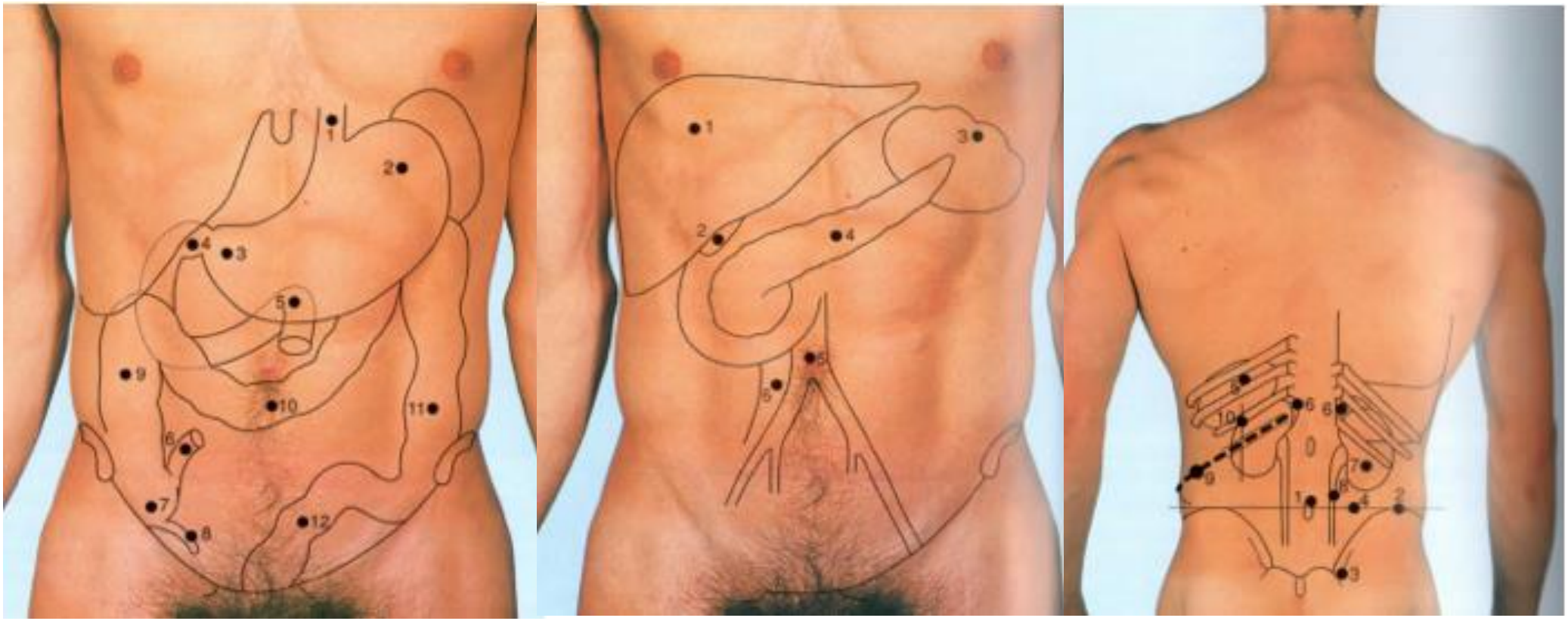
Liver; gallbladder; colon; stomach; duodenum; kidney, pancreas

Spleen; stomach; colon; pancreas; kidney

Appendix; colon; ovary;

Colon; ovary;

The abdomen



Always consider the topography of the abdominal organs in their anterior and posterior projection on the surface.
This is one the main clues to make diagnosis.

The history

Important questions may point to the diagnosis.

Do not overlook the patient's history.

Always keep attention to the patient's descriptions of her/his symptoms. Sometimes they make the diagnosis by themselves.

The history

Which are such questions?

- ✓ Age
- ✓ Gender
- ✓ Occupation
- ✓ Social history
- ✓ Family history

+ Always epidemiology and geography of diseases

The history

Which are such questions?

- ✓ **Age**
- ✓ **Gender**

Different diseases for different age & gender.

Example:

Acute pain in left lower quadrant in a 60-year old female or in a 20-year old female. The first is likely to have diverticulitis, while the second may have an appendicitis or uro-gynecological problem.

Main abdominal symptoms

- ✓ Systemic manifestations of abdominal diseases
- ✓ Abdominal pain
- ✓ Abdominal lump/mass
- ✓ Gastrointestinal manifestations
- ✓ Gynecological history & symptoms
- ✓ Past medical history

Main abdominal symptoms

Systemic manifestations of abdominal diseases includes:

- ✓ Fever
- ✓ Loss of appetite
- ✓ Weight loss and weight gain
- ✓ Nausea
- ✓ Pallor
- ✓ Jaundice
- ✓ Itch and bruising

Main abdominal symptoms

Abdominal pain (main symptom)

- ✓ When did the pain start?
- ✓ Where does it occur?
- ✓ When does it occur?
- ✓ How is the pain? Is it sharp, dull, burning, gripping, etc… ?
- ✓ How often is the pain?
- ✓ Where does the pain radiate to?
- ✓ What are the aggravating or relieving factors?

Main abdominal symptoms

Abdominal lump/mass

- ✓ Is there any hernia?
- ✓ Is there any tumor?
- ✓ Is that mass pulsating?

Main abdominal symptoms

Gastrointestinal manifestations

- ✓ Swallowing: is there any difficulty to swallow?

- ✓ Vomiting: what is the timing and relations with food intake? What is the color? Is that opalescent (saliva or stomach juice) or yellow or green (bile) or brown (fecal)? Is there blood inside?

Main abdominal symptoms

Gastrointestinal manifestations

- ✓ Indigestion or heartburn: ask is there is any heartburn sensation.
- ✓ Abdominal distension and bloating
- ✓ Ask for bowel habit: has there been any change in that? Any increasing constipation or diarrhea?
- ✓ Ask for blood from the anus.

Main abdominal symptoms

Gastrointestinal manifestations

In such cases of blood from the anus always ask:

- ✓ Was that blood fresh red (recent) or dark red (old)?
- ✓ Were there clots?
- ✓ Was that blood on the stool or on the paper toilet?
- ✓ How often?

Main abdominal symptoms

Gynecological history & symptoms

- ✓ Ask always for the last menstrual period.
- ✓ Is that pt currently pregnant?
- ✓ Ask whether there is any vaginal discharge, pain, spotting, etc …

Consider than many women are disoriented about their periods. Do not overlook gyn-diseases

Main abdominal symptoms

Past medical history

- ✓ Ask for previous surgery – especially in the belly. Always focus on the issue. Don't care about tonsillectomy or orthopedic surgery.
- ✓ Ask for medical diseases.
- ✓ Ask for chronic use or abuse of medications.

The belly's examination

- ✓ Inspection
- ✓ Auscultation
- ✓ Palpation
- ✓ Percussion

Inspection

- L'ispezione inizia non appena viene visto il paziente (anche da lontano …)

- In semeiotica medica, aspetto fisionomico caratteristico di certe malattie o sindromi morbose, particolarmente visibile nel volto

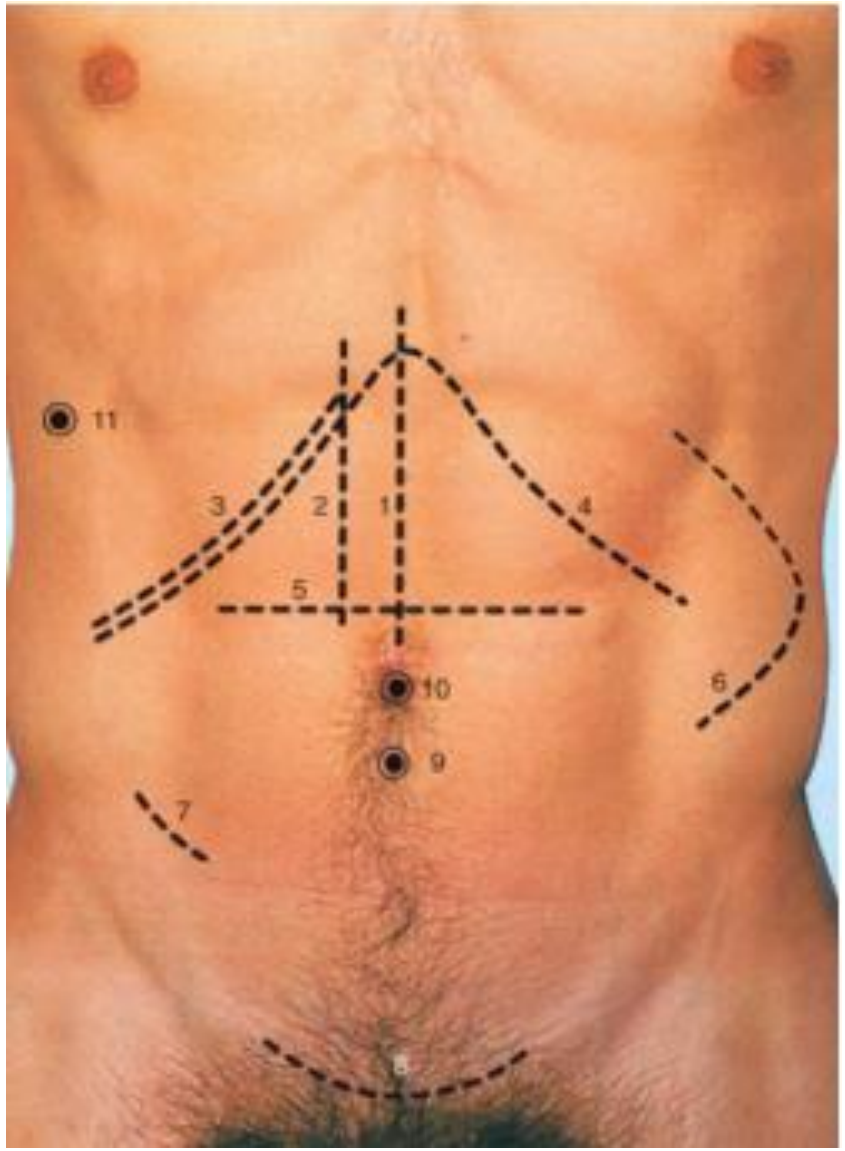
- **Facies:** Ippocratica o addominale: guance pallide, incavate, occhi infossati e cerchiati, labbra cianotiche e asciutte, sguardo opaco, lingua secca, labbra. Indicativa di peritonite.

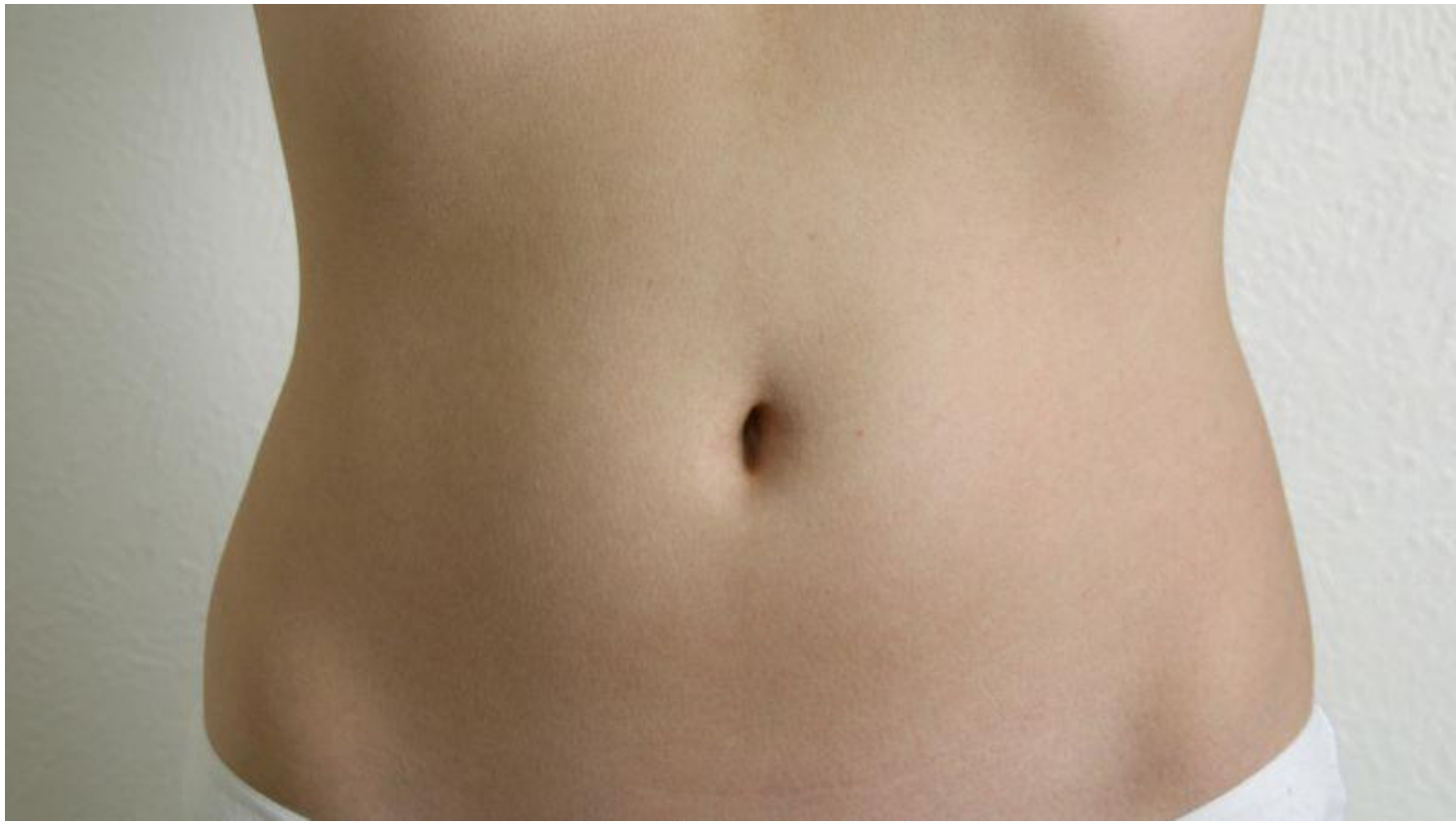
Inspection

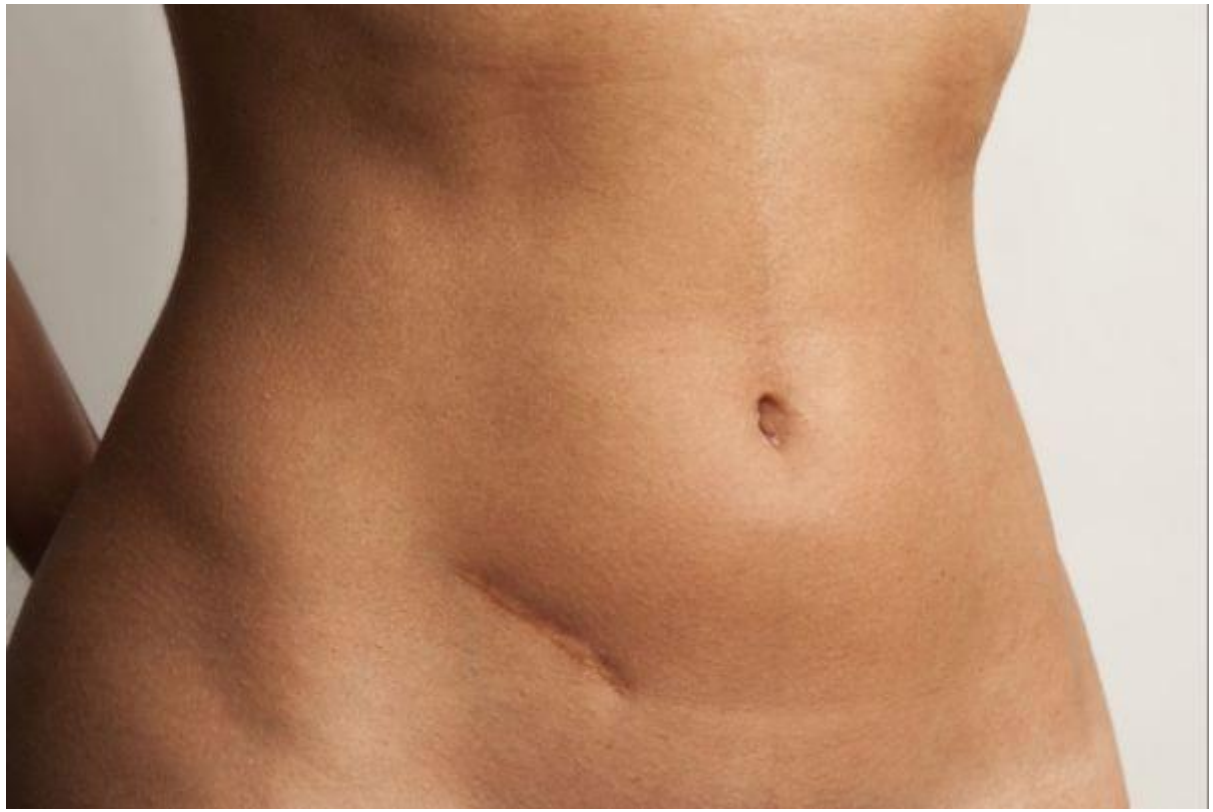
Watch for:

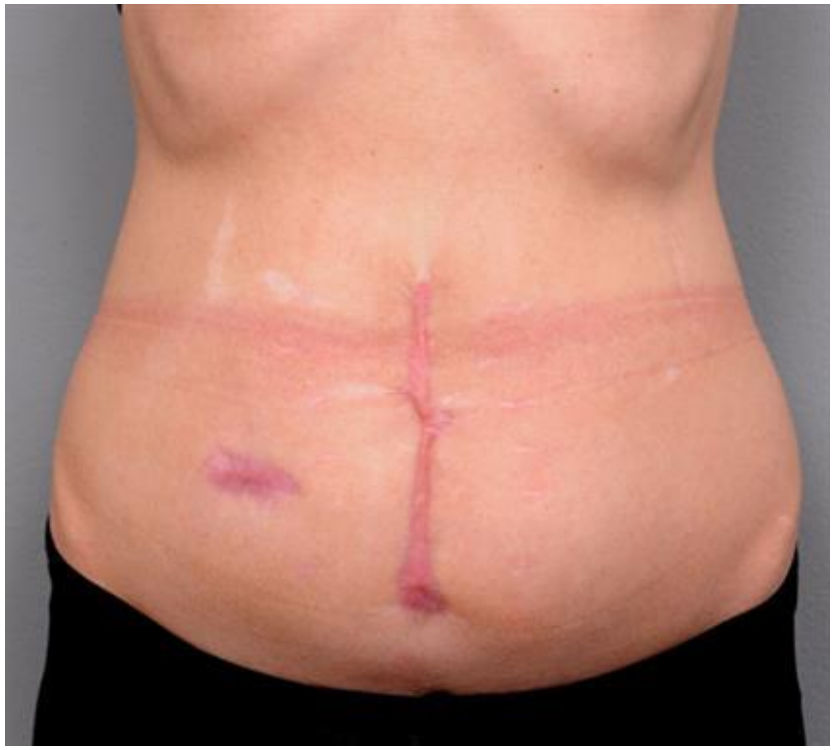
- ✓ Ask to the patient to lie down on the back and uncover the belly, which means from the sternum to the pubis
- ✓ Look for the morphology (flat, obese, any distension)
- ✓ Presence or absence of movements during the respiration
- ✓ Abdominal lump/mass
- ✓ Asymmetry
- ✓ Describe the umbilical scar and any surgical scars
- ✓ Skin lesions, any venous circles
- ✓ Stoma bag
- ✓ In case of lump ask to the patient to cough to check any movement (hernia)

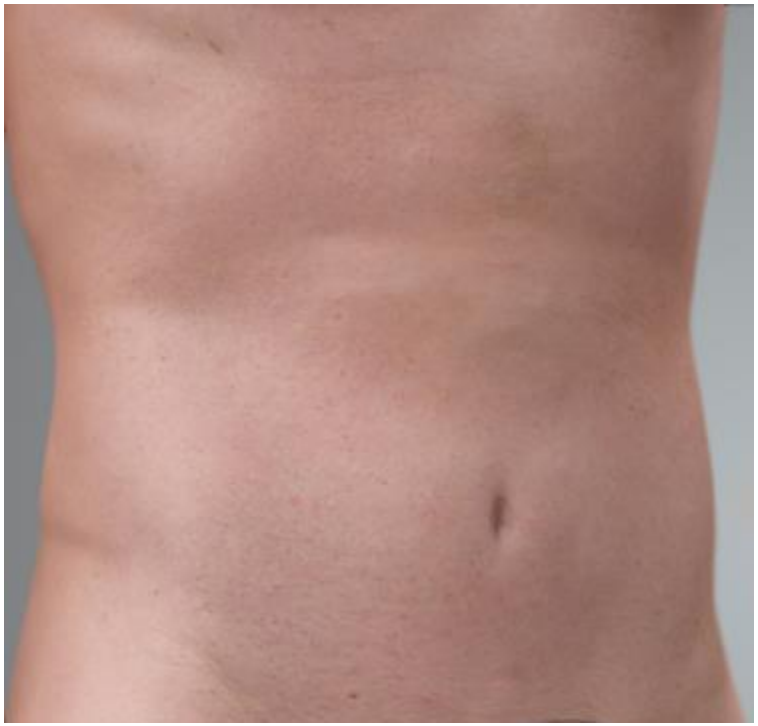
Inspection: surgical scars

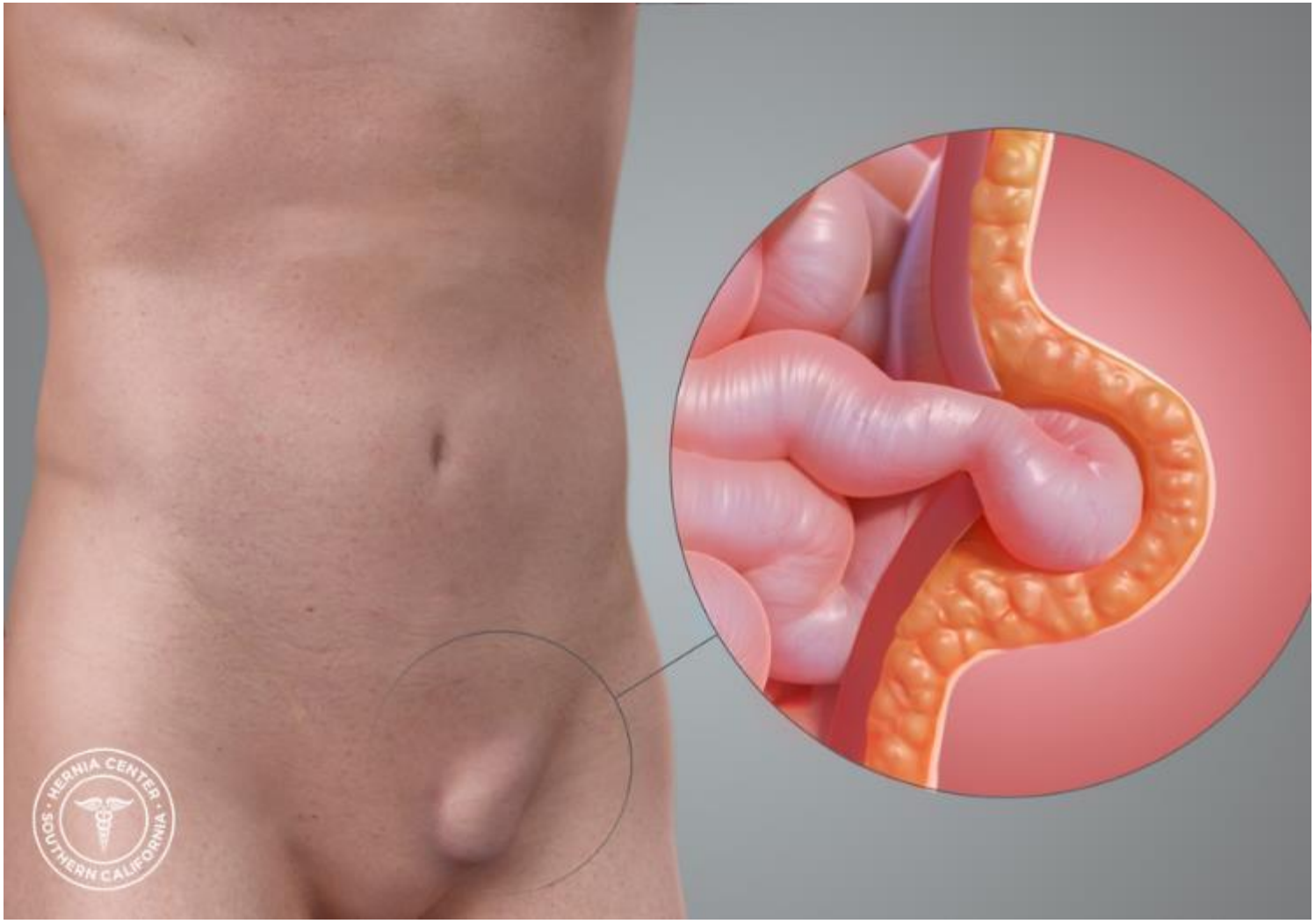


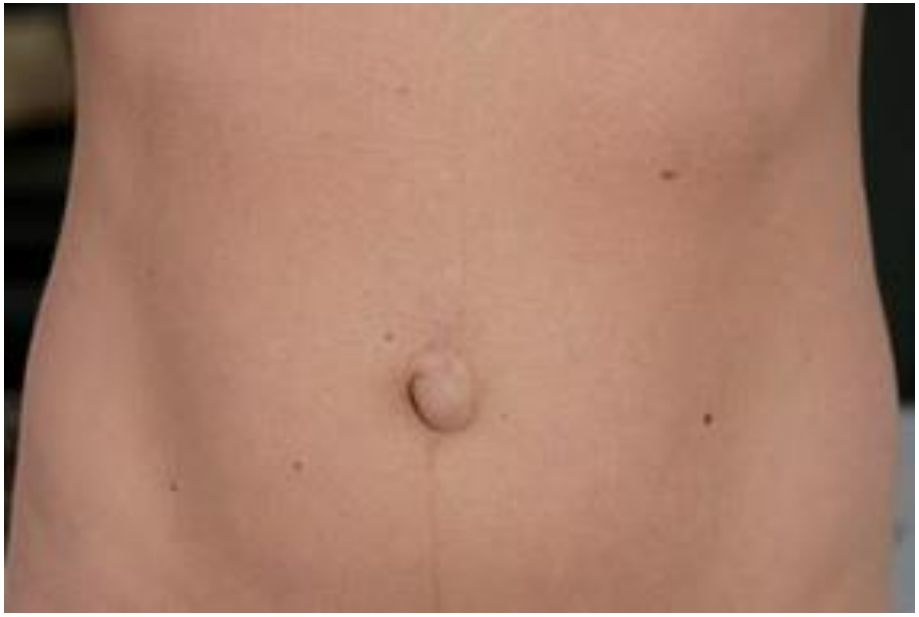


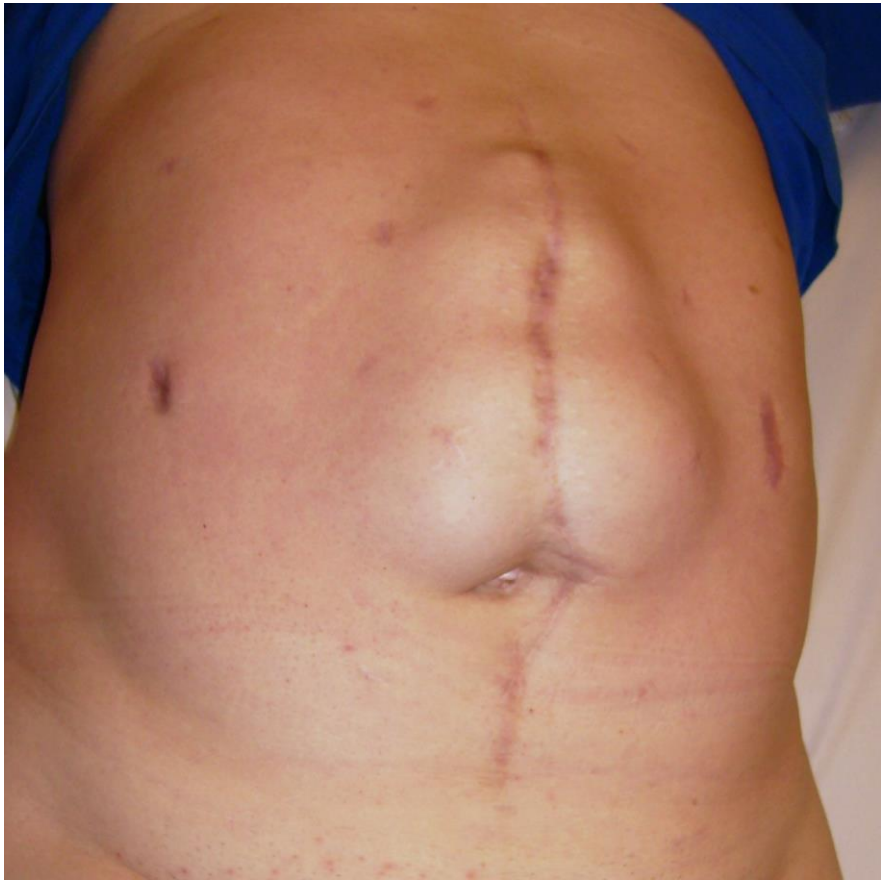







HERNIA CENTER
SOUTHERN CALIFORNIA





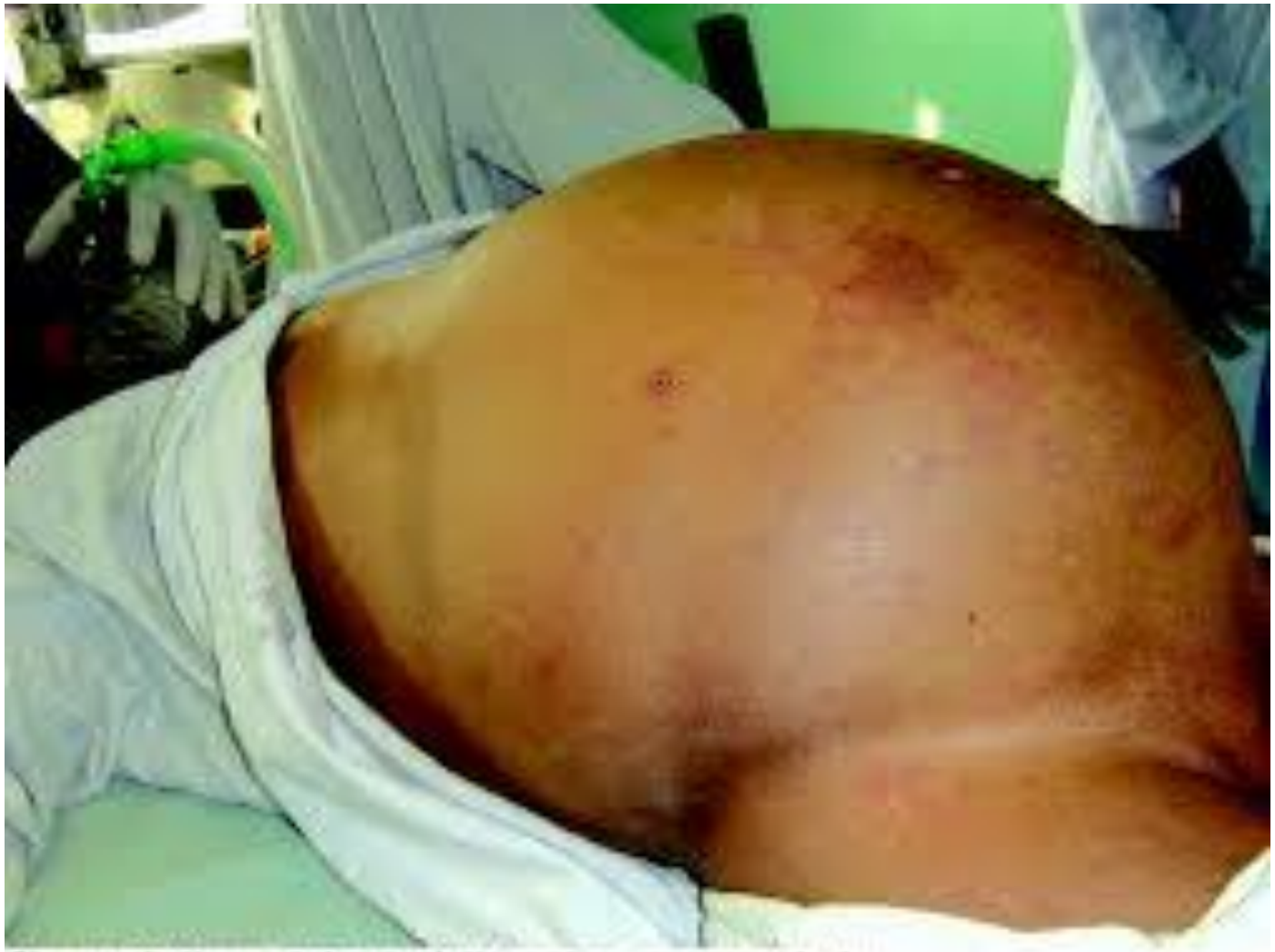
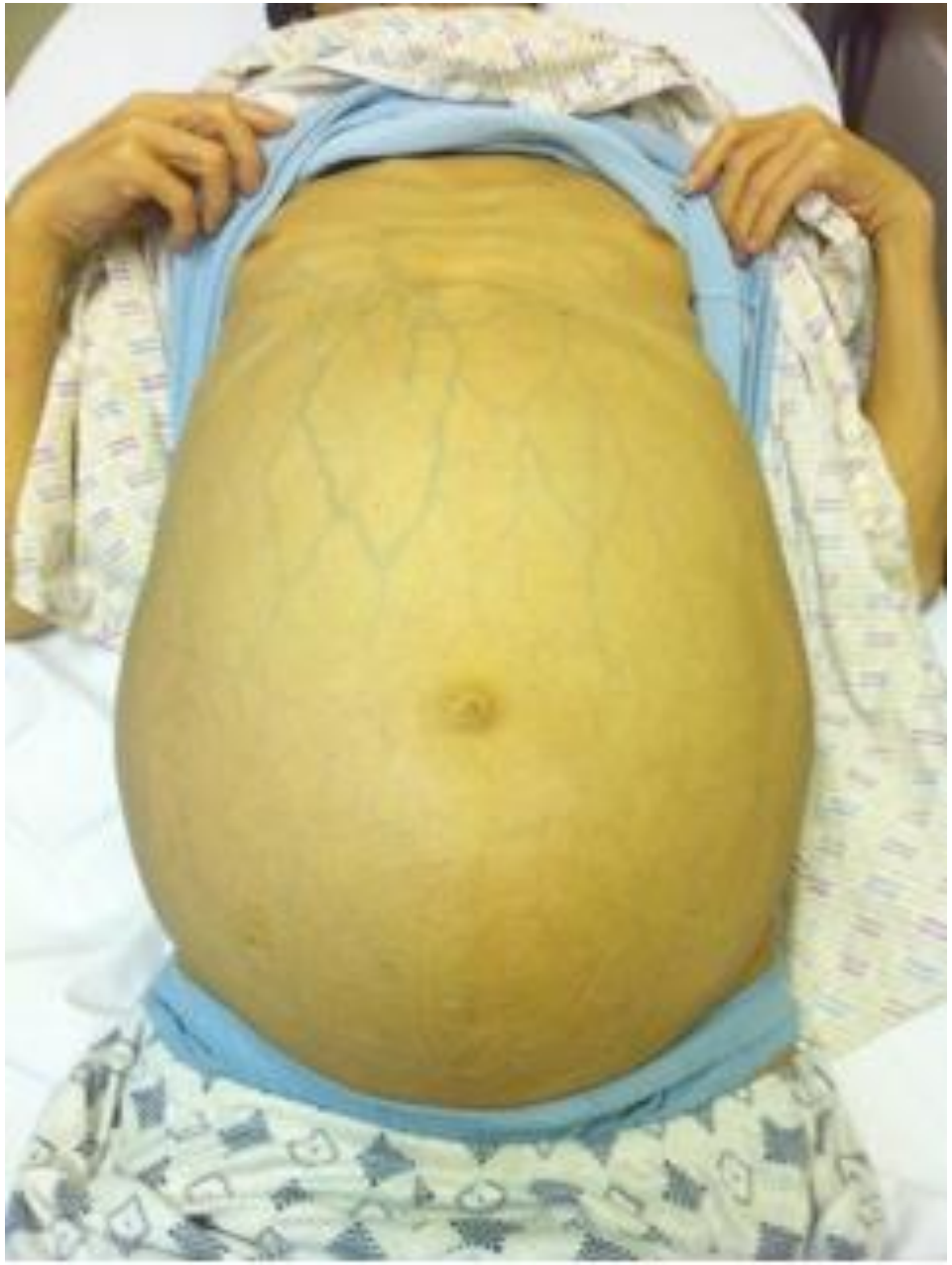
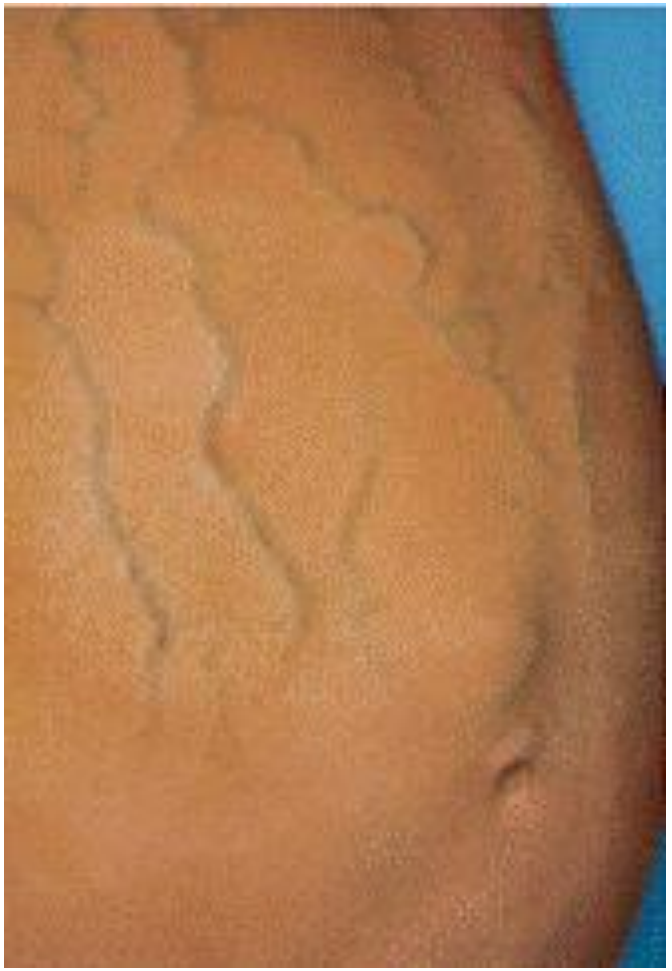
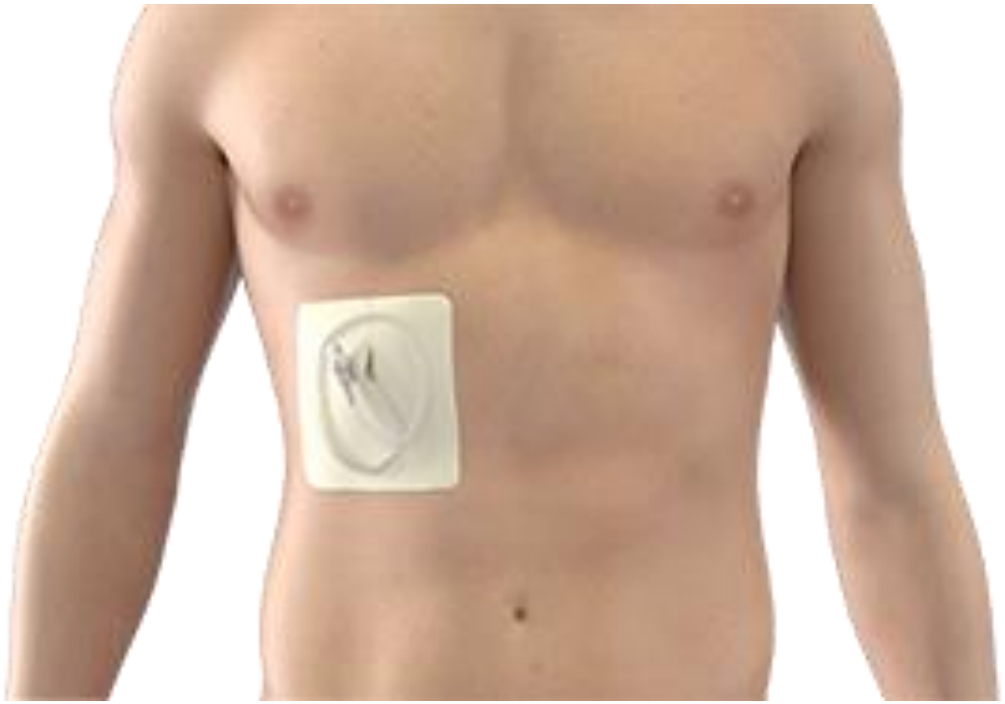
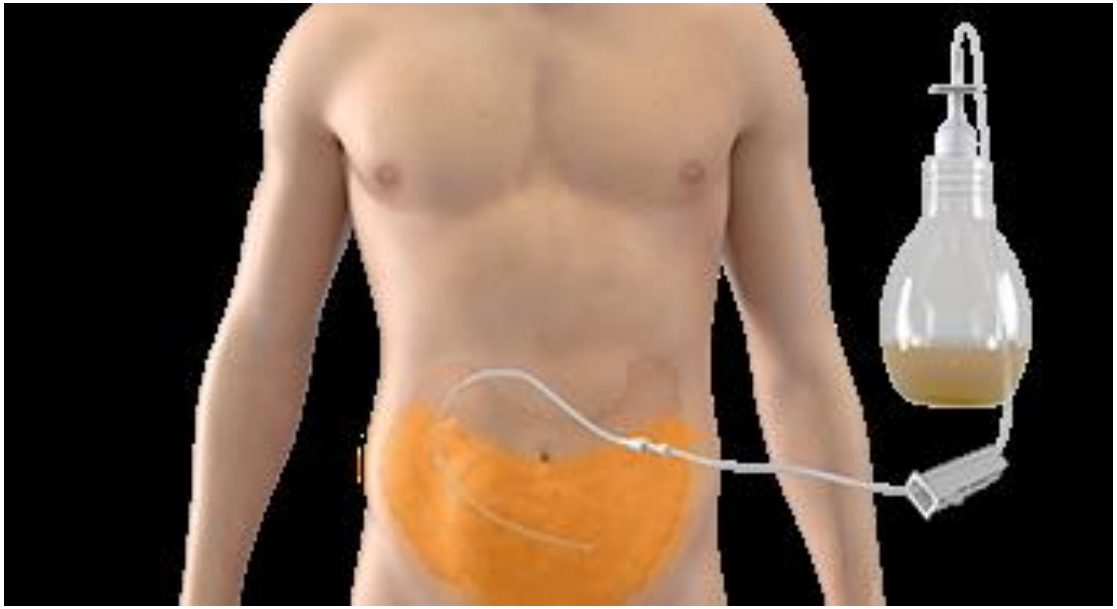


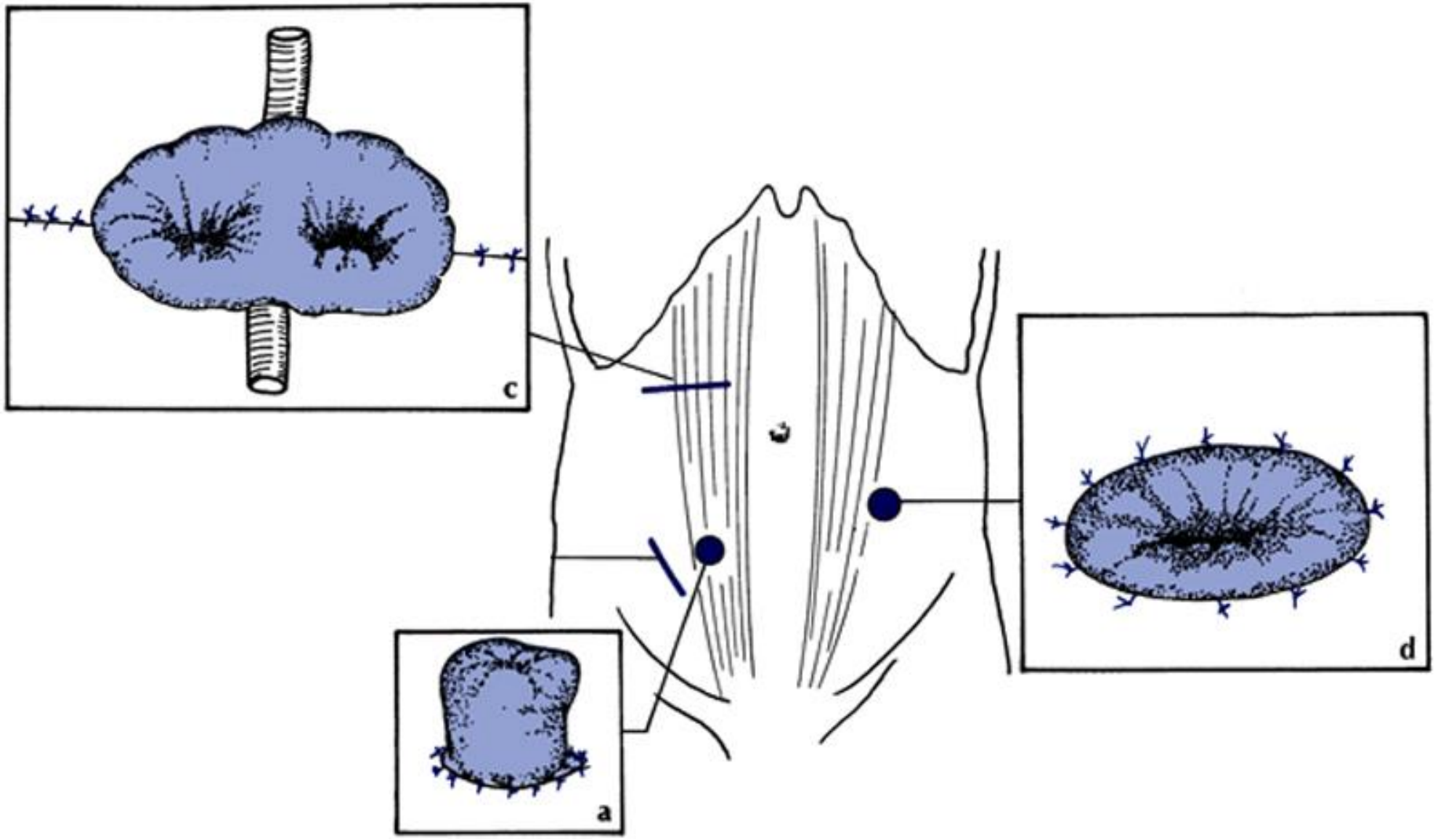
Figure-1: Huge abdominal distension pre-operatively.







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Auscultation

- ✓ It is useful to listen the bowel sounds, which may be absent in case of peritonitis or ileum or may be very frequent in case of bowel occlusion
- ✓ Vascular bruits in the aorta, femoral and renal arteries may be listen
- ✓ Stimulate the peristalsis by gentle palpation con fingertips

Auscultation

https://www.practicalclinicalskills.com/

Palpation

- ✓ The patient must be supine, with arms by sides
- ✓ Stand at patient's right-side
- ✓ Always ask the patient's permission to palpate the abdomen
- ✓ Try to have warm hands
- ✓ Ask where the abdomen is sorest, and palpate that part at last
- ✓ Palpate the belly watching the patient's face to see any discomfort, which may point to the diagnosis
- ✓ Start with superficial, than with deeply palpation with one and/or two hands
- ✓ Follow a kind of round path touching all the quadrants

Palpation

- ✓ In case of mass: define the limits, the size, the site, if it is mobile or fixed, if it is painful, and the consistency (elastic, hard, soft, etc…)
- ✓ It us useful to check the liver and spleen volume. In normal cases such organs cannot be palpated.

Liver palpation

- ✓ Normally not palpable
- ✓ Starting from the right lower quadrant one or two hands are gently moved up to the right upper quadrant and pressed in and up, asking the patient to take a deep breath. If the liver is enlarged, it will come down to meet the fingertips and will be recognizable. It is possible to describe also the quality of the liver margins (smooth, irregular, etc..).

Spleen palpation

- ✓ Normally not palpable
- ✓ Starting from the left lower quadrant one hand is gently moved up to the left upper quadrant and gently pressed in and up, asking the patient to take a deep breath. Then the lower margin of the spleen may be palpated in some cases of splenomegaly.

Always focus on:

- ✓ **Abdominal defense or guarding**: is the tensing of the abdominal muscles to guard inflamed organ. When the belly is pressed the operator can feel the muscles tension, which may be limited to one quadrant or extended to all of them (limited defense or diffuse defense).
- ✓ **Rebound tenderness**: is the pain upon the removal rather than the application of the pressure. It indicates a peritonitis, which may be confined to a quadrant or diffuse.

Main abdominal signs/maneuvers

- ✓ **Murphy's sign**: it is performed by asking the patient to breath and then gently placing the hand below the costal margin approximately at the mid-clavicular line. It's positive in case of acute gallbladder diseases.
- ✓ **Blumberg's sign**: it is the same of the rebound tenderness. The abdominal wall is gently compressed and rapidly released. It's positive in peritonitis.
- ✓ **Rovsing's sign**: If palpation of the left lower quadrant increases the pain felt in right lower quadrant the sign is positive and the patients may have appendicitis.
- ✓ **McBurney's sign**: it is a positive Blumberg's sign in the McBurney point, which is at one-third of the distance between the anterior superior iliac spine and the umbilicus

Percussion

- ✓ It is useful to distinguish hollow from solid structures, and to define their limits.
- ✓ Gentle percussion of the acute abdomen is a much kinder way to check rebound pain rather than traditional palpation
- ✓ It may be used to distinguish free fluids in the belly (ascites)

Rectal examination (RE)

Equipment:

- ✓ Disposable, not sterile, gloves
- ✓ Lubricant
- ✓ Lighting

Always explain to the patient how & why the examination is done. The examination is uncomfortable but usually painless.

Positions for RE

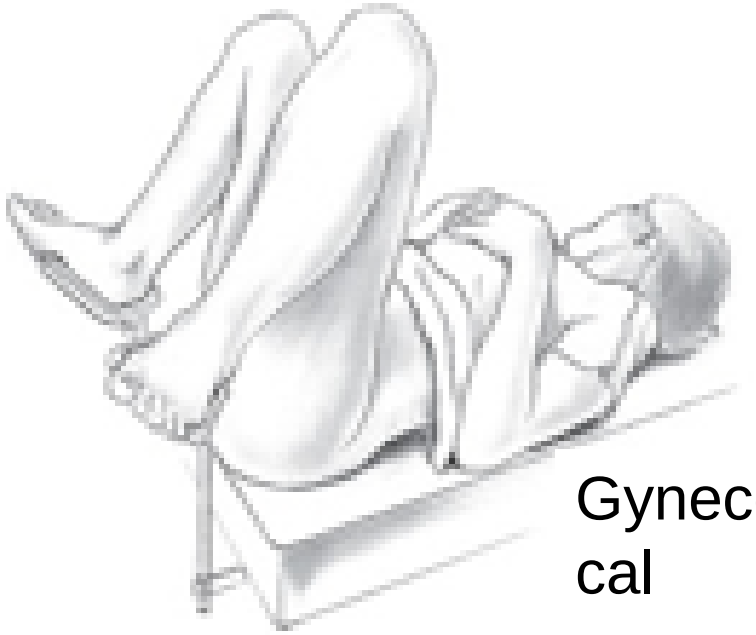
- ✓ Most common: **left lateral position** with flex hips and knees (sometimes refer as Sims's position)

- ✓ Other: **gynecological position** or lithotomy position. This is very useful but it requires a gynecological bed. **Genu-pectoral position** rarely used.

Positions for RE

Left lateral

Genupectural

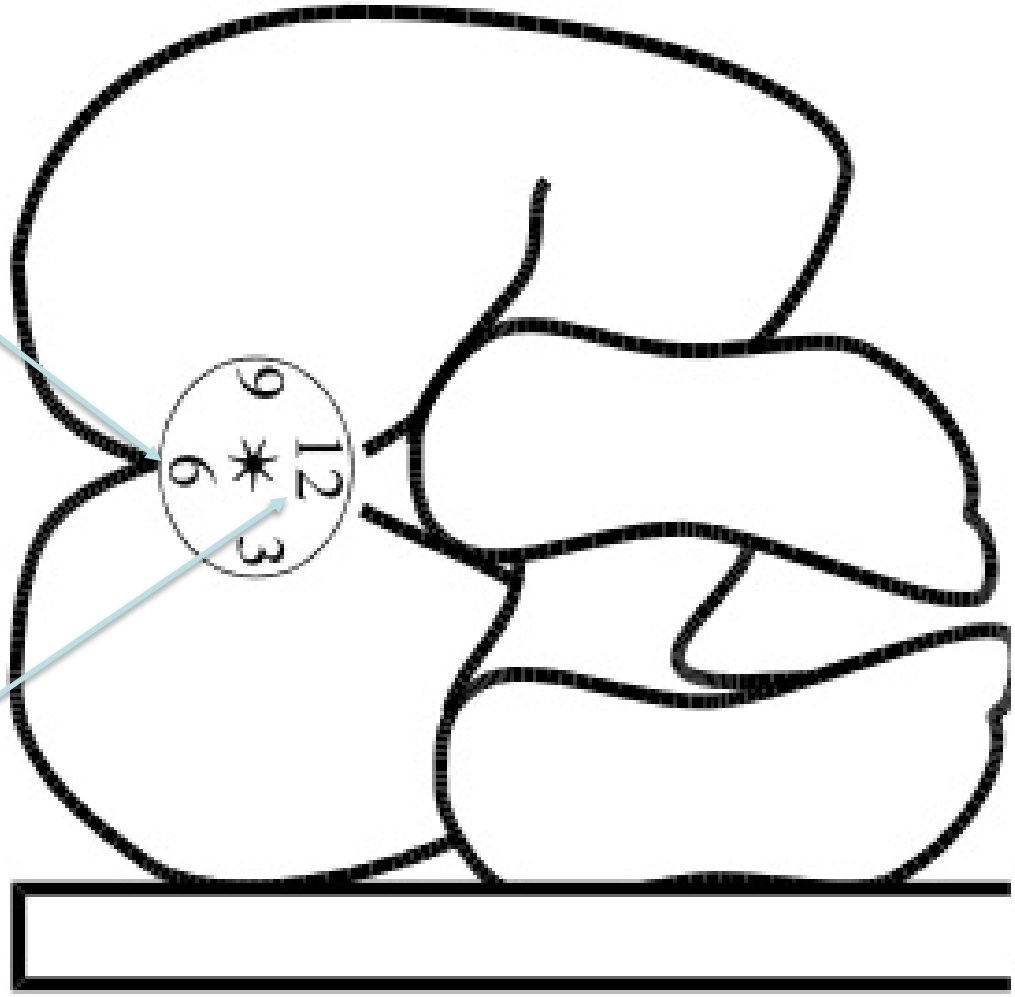


Gynecological

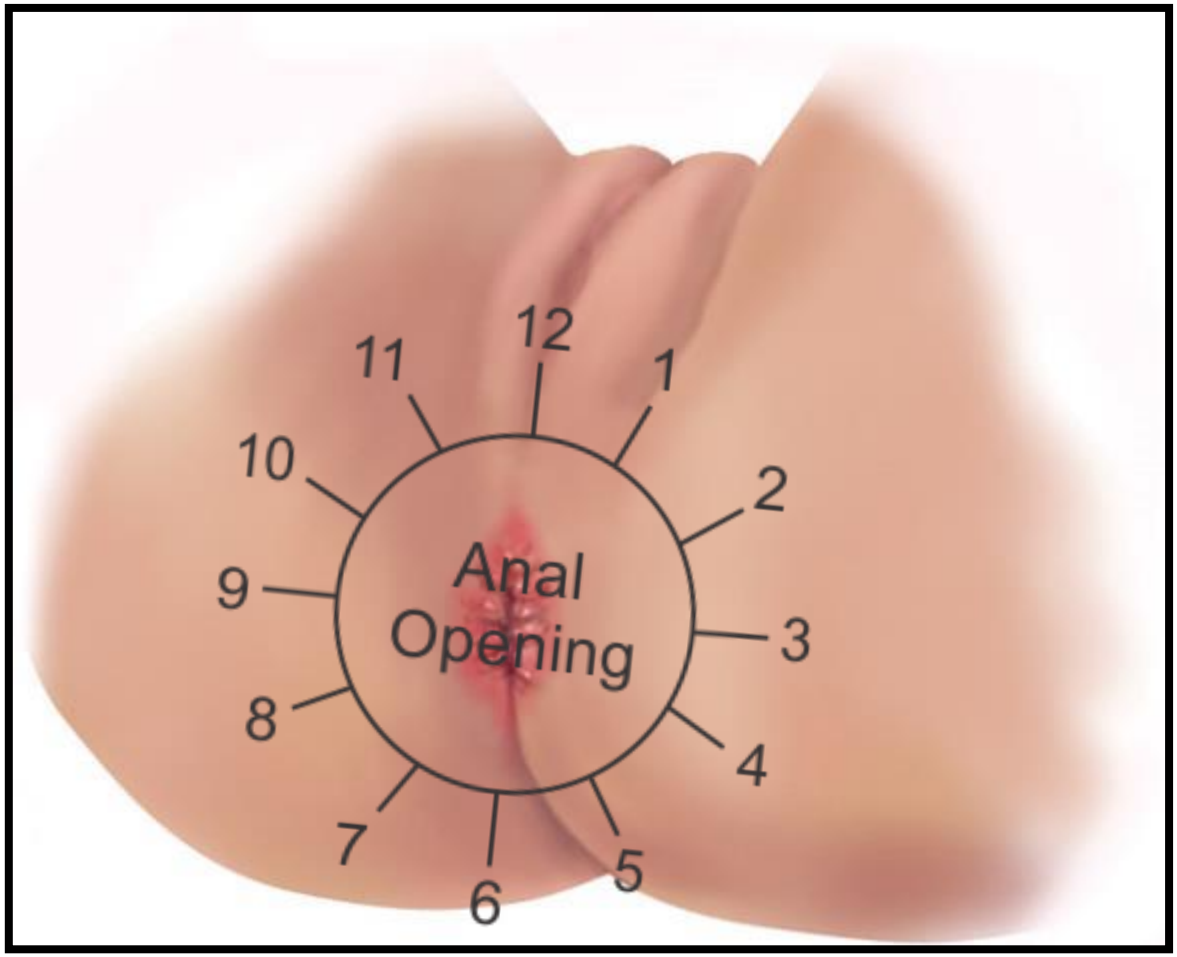
Clock's hours

Posterior commissure

Anterior commissure



Clock's hours



RE

- ✓ Gently open the buttocks to expose the perineum
- ✓ Inspect the skin around the anal verge and watch for any fissure, liquid discharge, lump
- ✓ Describe any finding using the clock's hours considering the posterior commissure as 6 o'clock, that is the pubis at 12.

RE

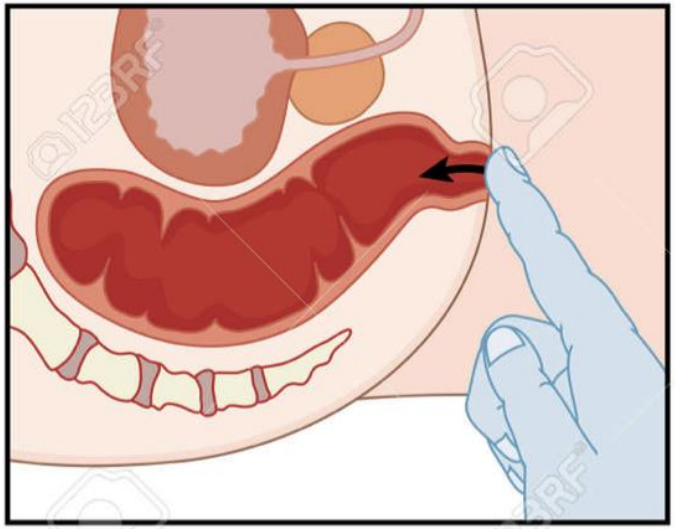
- ✓ Lubricate the right index finger, press upon the verge, slip into the anal canal easily
- ✓ Always check if the patient feel any pain, and in such case look for the specific painful area/point
- ✓ Once inside, ask the patient to squeeze the finger with the aim to check the anal tone
- ✓ You'll learn with practice to distinguish normal tone from low or high tone

RE

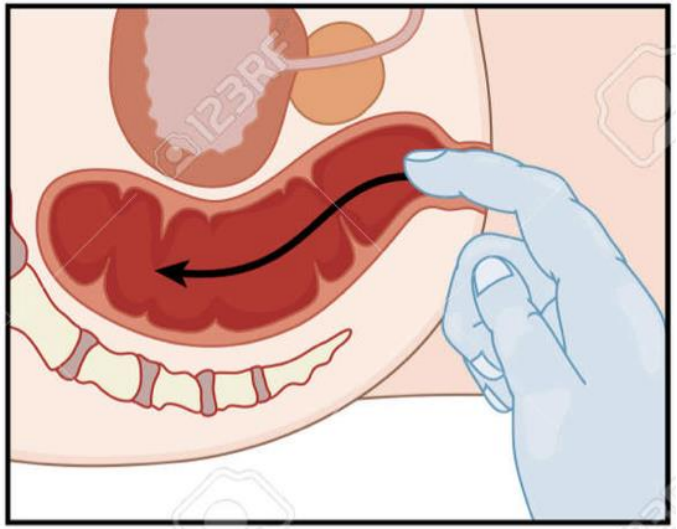
- ✓ Now the finger is moved through 180° from the right and left side to feel all the anal canal and distal rectum
- ✓ Any lump or wall lesion should be felt
- ✓ In male the prostate gland can be felt
- ✓ In female the cervix and the uterus can be checked

RE

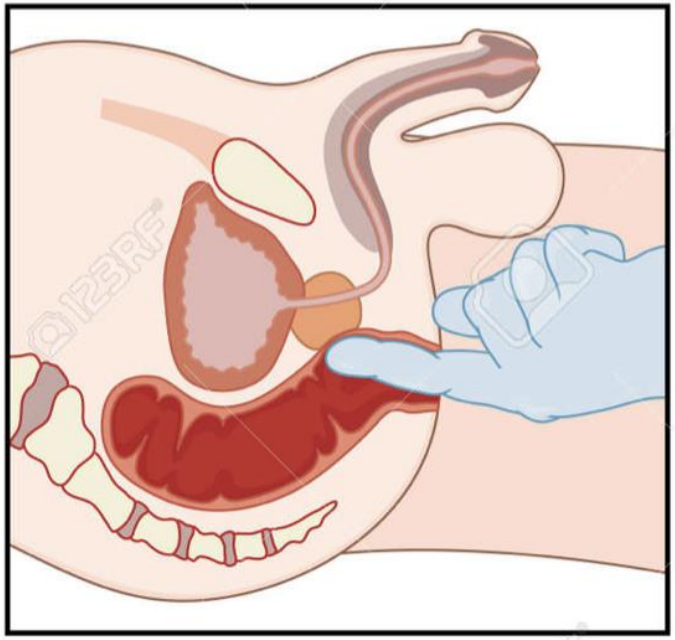
- ✓ In case of any mass, its limits and consistency should be noted
- ✓ To describe the internal findings do not use the clock's hours rather:
- Anterior or superior wall
- Inferior or posterior wall
- Right lateral wall
- Left later wall
- ✓ Watch for stool color on the finger (blood?)

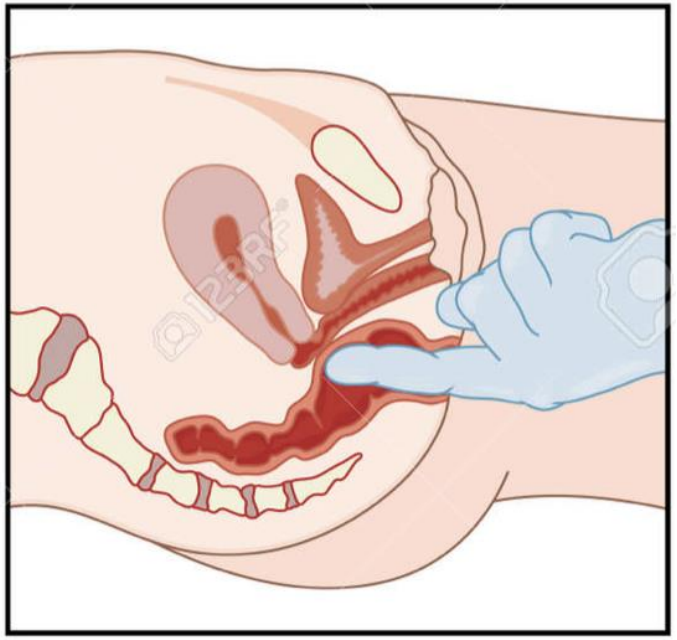


1. Insert the tip of the gloved index finger into the anus



2. Introduce your finger to follow the curve of the sacrum





3 and 4. Rotate the finger anteriorly to palpate the anterolateral and lateral walls and the prostate or cervix

Questions ?

Indice

Surgical team

Cleaning and washing hands

Surgical dress

Preparation of a surgical field

Dress code

- ❑ No watch
- ❑ No bracelets
- ❑ No rings
- ❑ No earrings

- ❑ Keep short and clean nails
- ❑ Keep your hair tied up

Code behaviour

- ❑ Turn off your mobile
- ❑ Don’t chat
- ❑ Be respectful of patient’s privacy
- ❑ Don’t hinder the job of doctors and nurses
- ❑ Pay attention of sterile fields anf things
- ❑ Be aware of kind of operation and specific anatomy
- ❑ Ask for informations only in quiet moments
- ❑ Don’t enter or leave the operating room when operation is in progress

Surgical technique

- LAPATOMIA
- LAPAROSCOPIA
- CH. ROBOTICA
- RADIOFREQUEZA
- EMBOLIZZAZIONE
- CHEMIOEMBOLIZZAZIONE

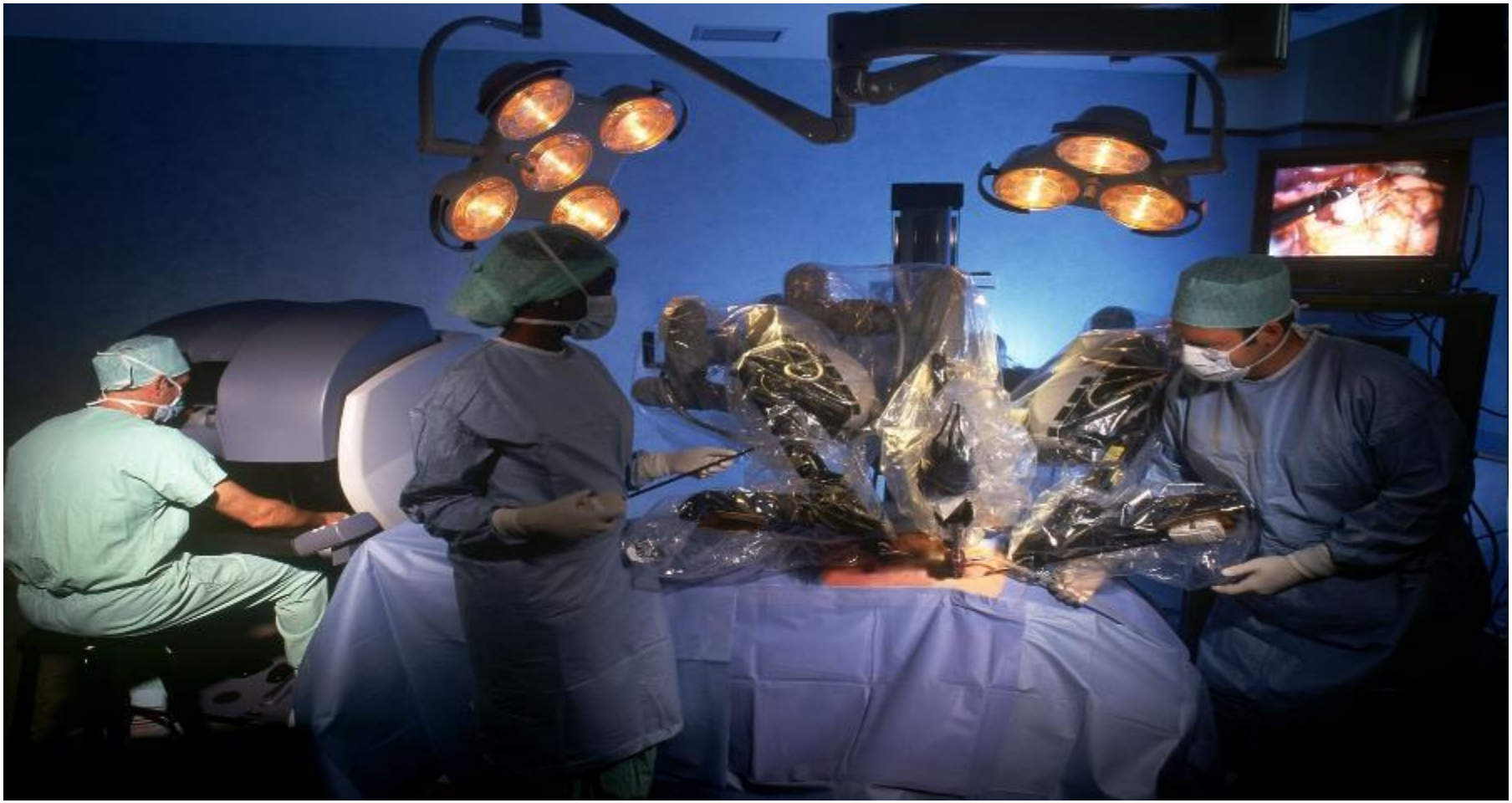
Surgical technique

Surgical technique

✓Stesso intervento che in laparotomia
✓Stesse indicazioni

✓Minore dolore post-operatorio
✓Minore degenza ospedaliera
✓Minore riabilitazione
✓Migliore estetica

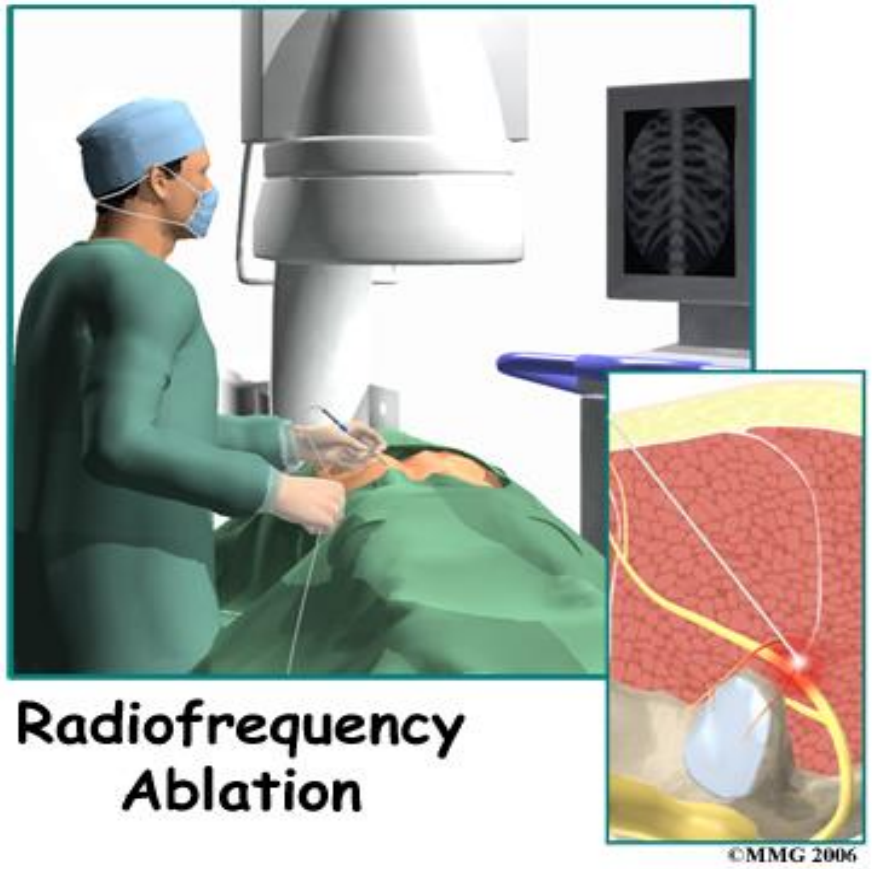
Surgical technique



Surgical technique

Interventional procedures

- Radiofrequenza
- Embolizzazione
- TACE (trans-catheteral arterial chemioembolization)



Surgical technique

-TOMIA

-CTOMIA

-SCOPIA

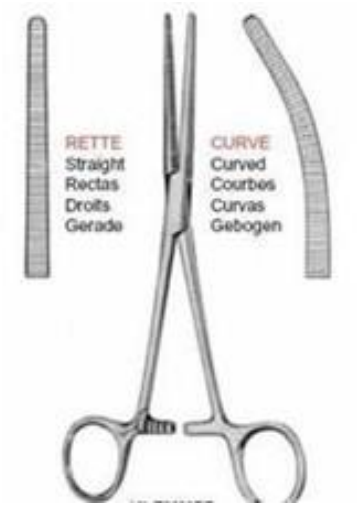
-RAFFIA

Bisturi

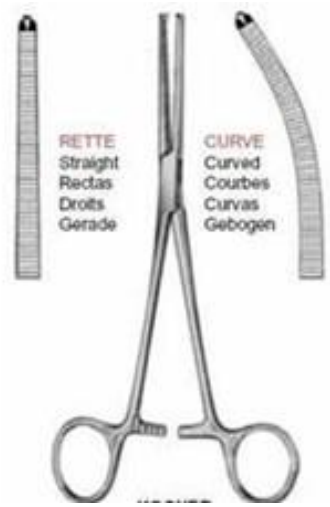
Forbici di Metzenbaum

Forbici di Potts

Forbici di Mayo



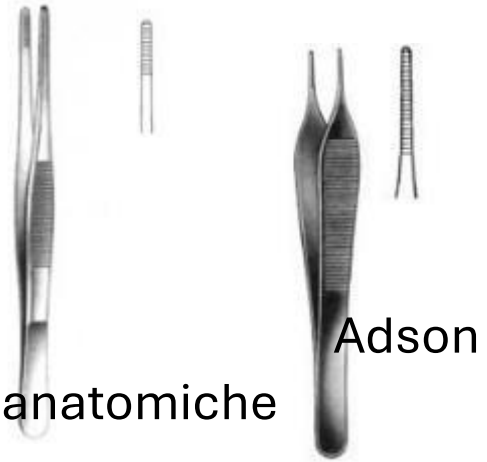
Klemmer



Kocher

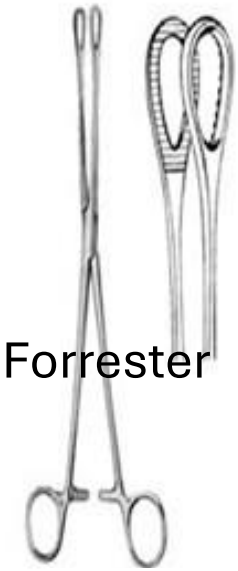
Pinze chirurgiche

Pinze anatomiche

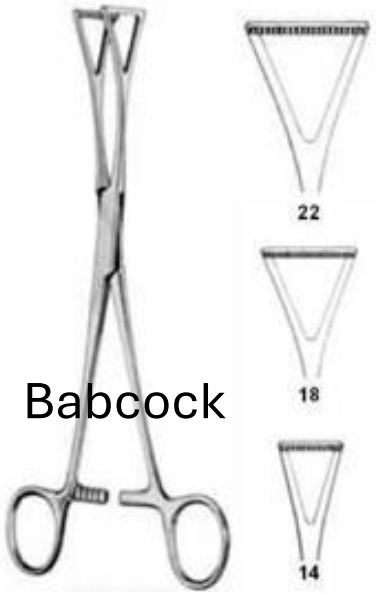


Adson

Pinze di Durante



Forrester

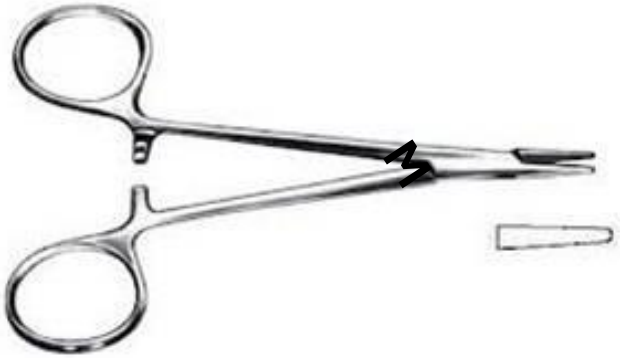


Babcock

Portaghi Mathieu

Backhaus

Pinza a L di Finocchietto



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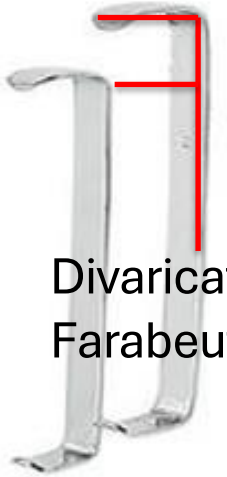

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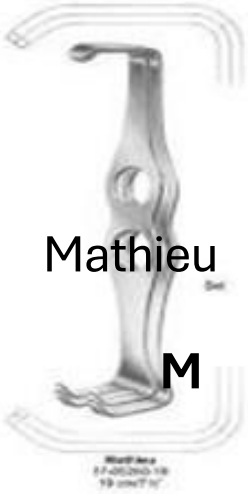
Farabeuf

Weitlaner

W



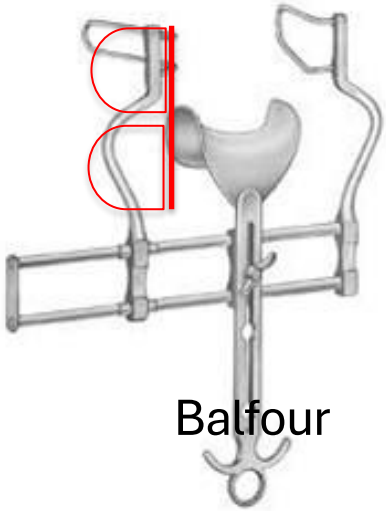
Mathieu

M

Langenbeck

C

Collin



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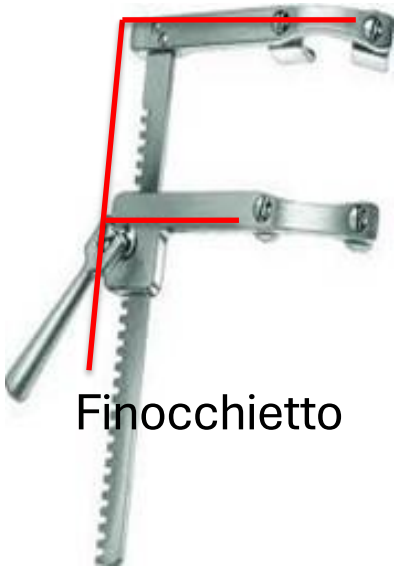
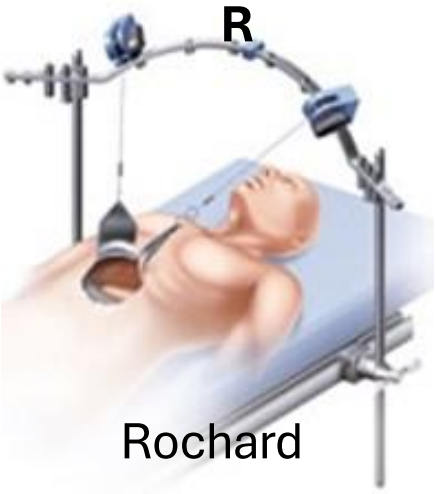


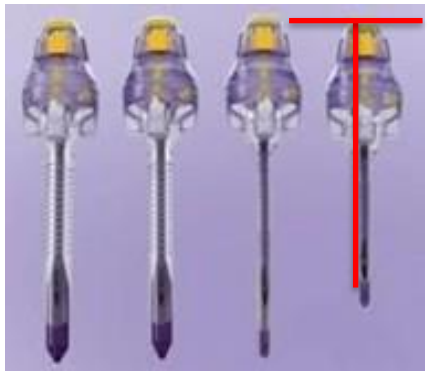
Finocchietto



R

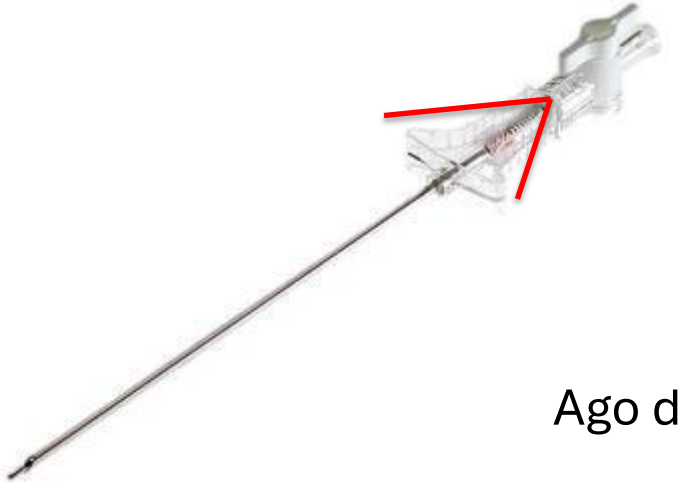
Rochard

Ottica laparoscopica o laparoscopio



Trocart

Pinza di Johannes



Ago di Verres

Questions ?

Indice

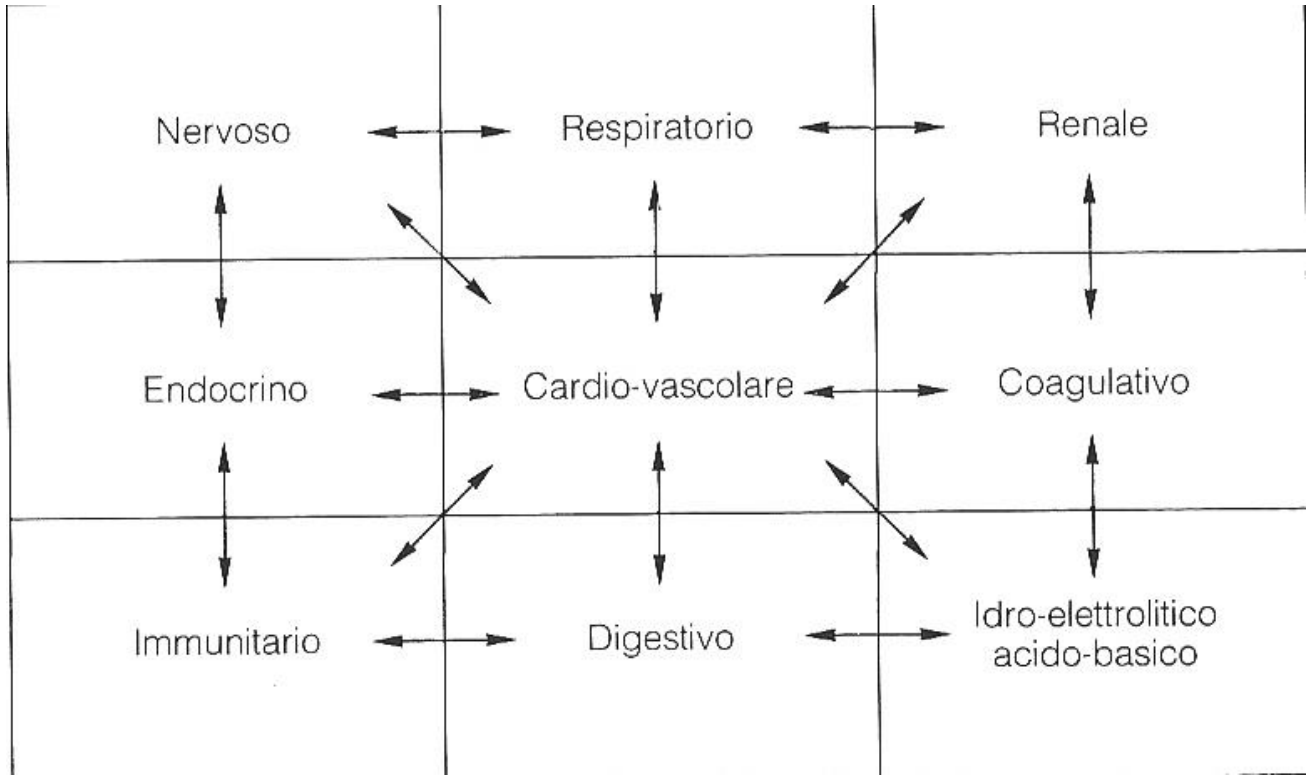
https://www.youtube.com/watch?v=3rTsvb2ef5k&t=133s

The global vision

- ✓ The fundamental question that the surgeon needs to raise is '**Is the patient fitted for surgery?**'
- ✓ The prepared patient heals faster from the anatomical, physiological and psychological standpoints.
- ✓ Surgeons want to operate healthy patients. *This is not a an oxymoron*.

The global vision

- ✓ What the surgeon needs is **the global vision** of the patient situation (i.e.: past and actual medical history).



The global vision

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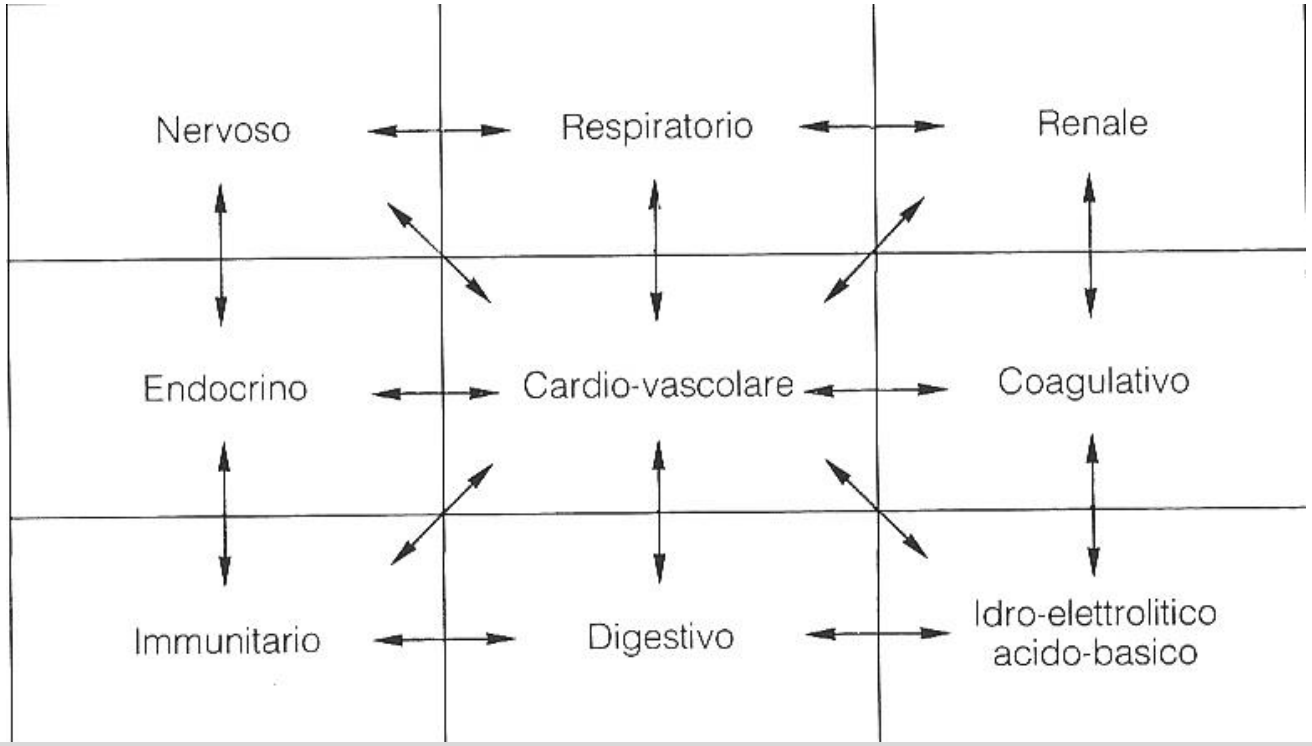


✓The body is made by many different and separate organs
✓They work together
✓Each apparatus is connected with the others

Factors to be considered in front of a patient candidate to surgery are:

- ✓ Biological for the underlying medical history. *Is there any comorbidity that may deteriorate the situation?*
- ✓ Pathological for the severity of the main disease for which the pt is awaiting surgery. *May that disease be corrected, at least in part, from my surgery?*

Estimation of the surgical risk

- ✓ The estimation of the risk(s) is important
- ✓ The literature is replete of methods
- ✓ What you need to know at this time of medical career is that for any surgery (cardiac, lung, vascular, liver, endocrine, etc…) several different score systems may be found and used.

Specific systems

- ✓ Respiratory risk
- ✓ Cardiovascular risk
- ✓ Renal risk
- ✓ Hemorrhagic & thrombotic risk
- ✓ Liver risk
- ✓ Nutritional and metabolic risk
- ✓ Infective risk

- ✓ Psychological counseling

Summary of the preop tests

- ✓ Detailed history taking + examination
- ✓ Respiratory: chest X-ray; ABG; spirometry; pneumologist
- ✓ Cardiac: chest X-ray; EKG; cardiologist
- ✓ Renal: BUN; creatinine; Na; K
- ✓ Blood: haemocrome; PT; PTT; thromboembolism
- ✓ Nutritional and metabolic
- ✓ Liver: AST, ALT, yGT, ALP, bilirubin, CHE, PT, Albumin
- ✓ Infective: sterile and technical procedures; antibiotic prophylaxis

Classifications

Classificazione ASA

- I: Paziente sano
- II: Malattia sistemica lieve senza ripercussioni funzionale (DM iniz. –TA iniz.)
- III: Malattia organica grave con ripercussione funzionale(Angina – BPCO – DM ID– Obesità severa)
- IV: Malattia sistemica che costituisce pericolo per la vita (Angina instabile, Insufficienza organica)

Classifications

Surgeon factors

- Surgeon washing hands
- Application of sterile procedures
- Rigorous surgical technique

→ Antibiotic prophylaxis

	DESCRIZIONE	ESEMPIO
PULITA	Chirurgia senza apertura di una cavità contaminata da batteri	Ernia inguinale
PULITA-CONTAMINATA	Chirurgia con apertura controllata del tratto intestinale, urinario o respiratorio	Colecistectomia
CONTAMINATA	Chirurgia con apertura non controllata del tratto intestinale, urinario o respiratorio	Colecistectomia con versamento di bile
SPORCA	Chirurgia con un'infezione stabilita	Appendicite

Indice

What is a complication?

https://www.youtube.com/watch?v=nQ6AeUPYJgk

What is a complication?

A complication is anything that “goes wrong”.

It is something that happen to a patient that should not have happened based on what is known, on what is the common and collective experience and on what is expected for the postop course.

Any deviation from the

standard postoperative course.

! WARNING !

The surgeon cut, burn, tear, suture and staple the human flesh meaning an alteration of normal anatomy and physiology.

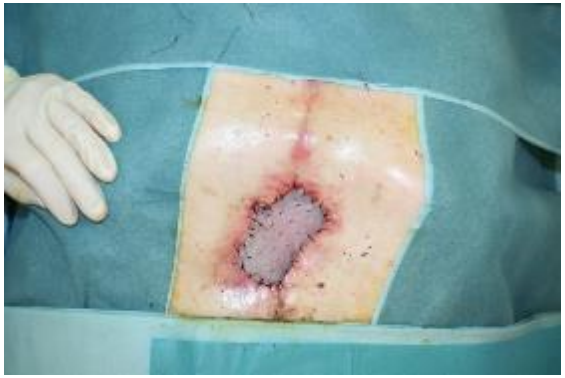
Thus, the use of inclusive and sensitive definition of complications means that most of the operations may be associated with complications.

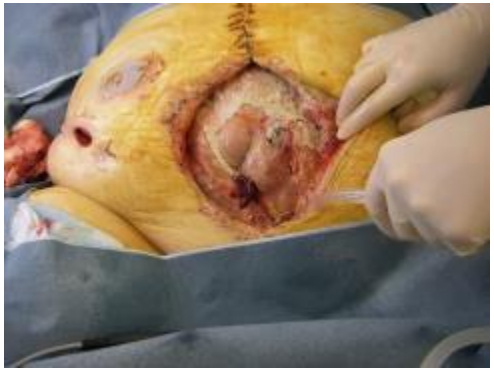
Of course this is not the case.

Wound healing

Wound repair is classified in :

- ✓ **Primary** (*first intention)*: when wound is immediately sealed (suturing, graft, flap closure). End result: small scar
- ✓ **Secondary** (spontaneous, *second intention*): when wound healing happens without *any active intent to seal* (usually for highly contaminated wound). End result: large scar
- ✓ **Tertiary:** in a delayed primary repair after repeated debridement.





Wound healing phases

- **Inflammatory phase** (reactive); hemostasis and inflammation. LIRS

  Post-wounding days 0-3
- **Proliferative phase** (regenerative or reparative). Epithelial migration and proliferation.

  Post-wounding days 2-8
- **Maturational phase** (remodeling). Contraction, scarring, remodeling of scar.

  Post-wounding days 4-365

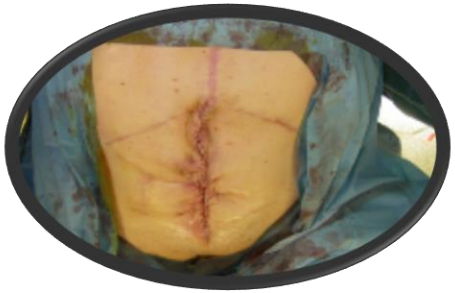
All the three phases may overlap

Wound healing issues

✓ **Minor complications**

Erythema

Serous discharge



✓ **Major complications**

Hematoma

Infections → Abscess

Prevention

«The fate of surgical wound is sealed *during* operation, almost nothing can be done after the operation to modify the wound's outcome» *Moshe Schein*

- ***Wash your hand*** *before to touch a patient*
- *Antibiotics prophylaxis (when risk of contamination)*
- *Meticolous surgical technique: avoiding tissue stretch, tissue necrosis and bacterial contamination, do not leave useless artificial materials (drains, catheters, stitches)*

List of complications

- ✓ Wound: **seroma, infection**, **hematoma,** dehiscence
- ✓ Respiratory: pleural effusion, pneumonia
- ✓ Cardiac complications: arhythmia, MI, cardiac failure
- ✓ Renal and UT: acute renal failure, infections
- ✓ Endocrine dysfunction: high/low gland functioning
- ✓ Gastrointestinal: nausea, vomit, diarrhea, leak
- ✓ Hepatobiliary: liver failure, jaundice, leak
- ✓ Neurological: clouded sensorium, vascular event
- ✓ **Each specific surgery has specific complications**

Please See the Dedicated Chapter on Sabiston

LIRS

All surgical acts provoke a **L**ocal **I**nflammatory **R**esponse **S**yndrome (**LIRS**), produced by locally generated inflammatory mediators characterized by

- redness,
- swelling
- warmth
- Pain

Aim of the LIRS is repairing of a local damage

SIRS

When the locally proinflammatory mediators of LIRS spill over to the systemic circulation , affecting the entire organism, it develop a **S**ystemic **I**nflammatory **R**esponse **S**yndrome (SIRS)

SIRS

When **two or more** of the following symptoms are present:

- **Temperature** > 38° or < 36° C
- **Heart rate** > 90 beats/min
- **Respiratory rate**> 20 breaths/min
- **White blood cells count** >12.000 or <4000 cells /mm^3

Aim of the SIRS is to activate a neuro-endocrin-immunological cascade of events in order to restore a systemic damage

SIRS

USUAL PHYSIOLOGIC CONSEQUENCES OF A SURGICAL TRAUMA

- Fever (*mild*)
- Hyperglicemia
- Leucocytosis
- Hypoalbuminemia
- Oedema
- Tachycardia
- Weakness

Classification of complications

There are several different classifications that might be used to:

- ✓ Standardized the report of complications with the aim to limit the under-reporting as well as the over-reporting of complications rate.
- ✓ Increase uniformity and to allow comparison among units or centers.

One of the most used is the Dindo classification (*Annals of Surgery 2004*)

TABLE 2. Clavien-Dindo Classification of Surgical Complications	
Grade I	Any deviation from the normal postoperative course without the need for pharmacological treatment or surgical, endoscopic, and radiological interventions. Allowed therapeutic regimens are: drugs such as antiemetics, antipyretics, analgetics, diuretics, electrolytes, and physiotherapy. This grade also includes wound infections opened at the bedside.
Grade II	Requiring pharmacological treatment with drugs other than allowed for grade I complications. Blood transfusions and total parenteral nutrition are also included.
Grade IIIa	Surgical, endoscopic, or radiological intervention that is not under general anesthesia
Grade IIIb	Surgical, endoscopic, or radiological intervention that is under general anesthesia
Grade IVa	Life-threatening complication requiring intermediate care or intensive care unit management, single organ dysfunction (including dialysis, brain hemorrhage, ischemic stroke, and subarrachnoidal bleeding)
Grade IVb	Life-threatening complication requiring intermediate care or intensive care unit management, multi-organ dysfunction (including dialysis)
Grade V	Death of a patient

TABLE 2. Clavien-Dindo Classification of Surgical Complications	
Grade I	Any deviation from the normal postoperative course without the need for pharmacological treatment or surgi… s. Allowed therapeutic regimens are: drugs such as antiemetics, antipyretics, analgetics, diuretics, electrolytes, and physiotherapy. This grade also includes wound infections opened at the bedside.
Grade II	Requiring pharmac… owed for grade I complications. Blo… are also included.
Grade IIIa	Surgical, endoscop… er general anesthesia
Grade IIIb	Surgical, endoscop… eneral anesthesia
Grade IVa	Life-threatening complication requiring intermediate care or intensive care unit management, sing… hemorrhage, ischemic stroke, and subarrachnoidal bleeding)
Grade IVb	Life-threatening cc… ensive care unit management, mul…
Grade V	Death of a patient

Minor complications

Minor complications

Major complications

Major complications

Major complications

Questions ?

Indice

REPARTO DI CHIRURGIA

Ward

Anamnesi

Esplorazione + Parametri vitali

Drenaggi e cateteri

Ward

DRENAGGIO →(dall'inglese to drain: prosciugare)

- in ambito sanitario si intende un sistema temporaneo che consente, attraverso flusso monodirezionale, la fuoriuscita di liquido organico o di gas da cavità naturali oppure neoformate in seguito ad un intervento chirurgico.
- solitamente collegato ad un sistema di raccolta per valutare qualità e quantità.

Ward

<u>DRENAGGIO</u> →(dall'inglese to drain: prosciugare)

- **Funzione terapeutica**: permette la fuoriuscita di liquidi in eccesso che si accumulano in una cavità.
- **Funzione profilattica**: posizionato in sala operatoria, al termine di un intervento chirurgico (Evitare formazione di raccolte, prevenire eventuali infezioni).
- **Consente il monitoraggio di eventuali complicazione (ci consente di avere un occhio all'interno del paziente)**

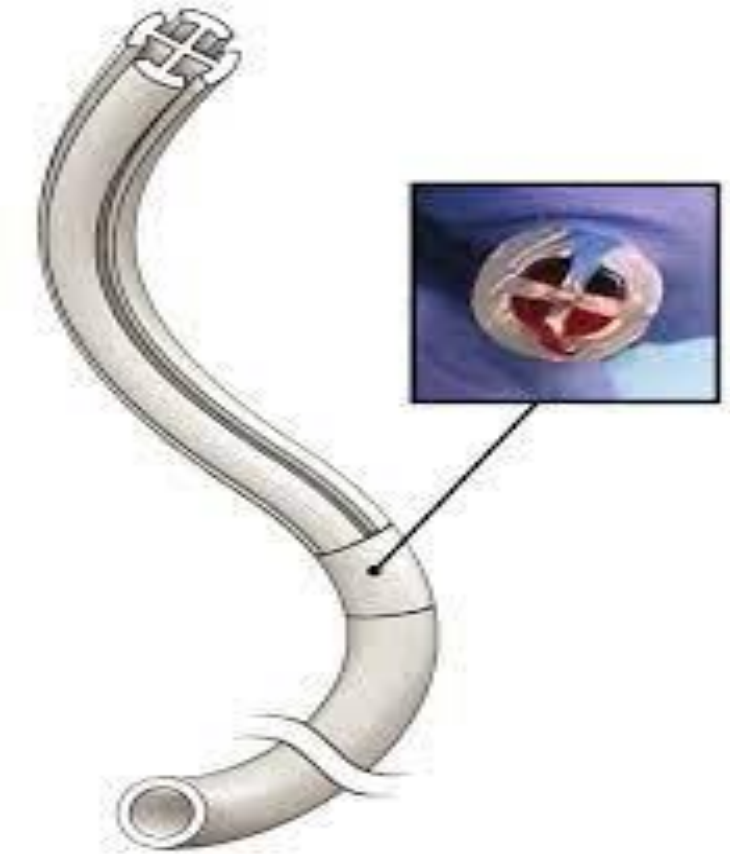
Ward

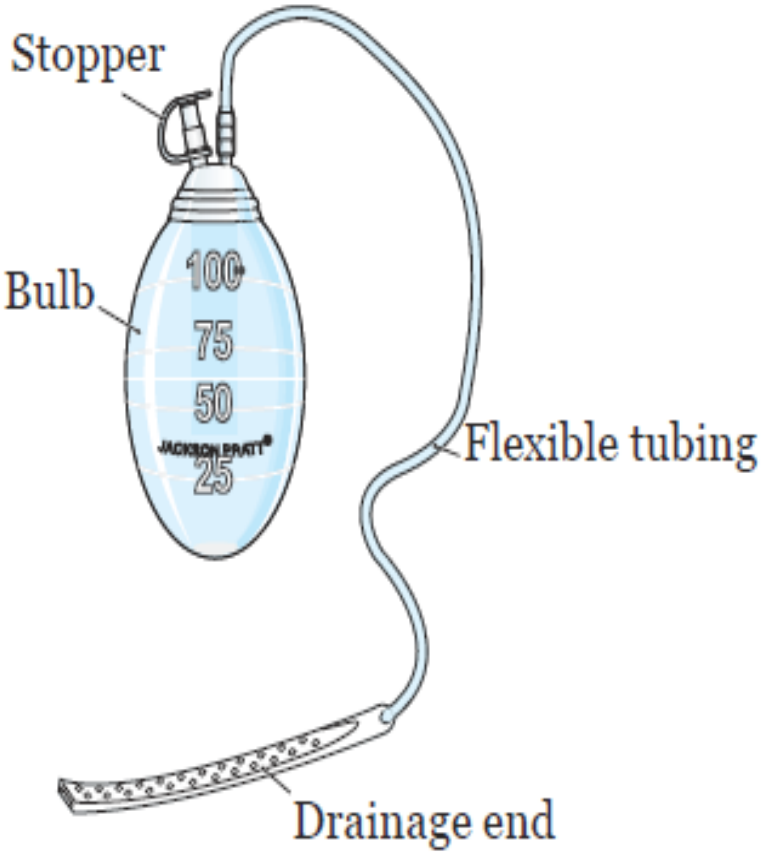
DRENAGGIO →(dall'inglese to drain: prosciugare)

- TUBULARE TIPO REDON - BLAKE - JACKSON PRATT
- LAMINARE PEN ROSE
- PIG TAIL-PTBD (radiologi interventisti)

Ward

DRENAGGIO →(dall'inglese to drain: prosciugare)





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DRENAGGIO →(dall'inglese to drain: prosciugare)

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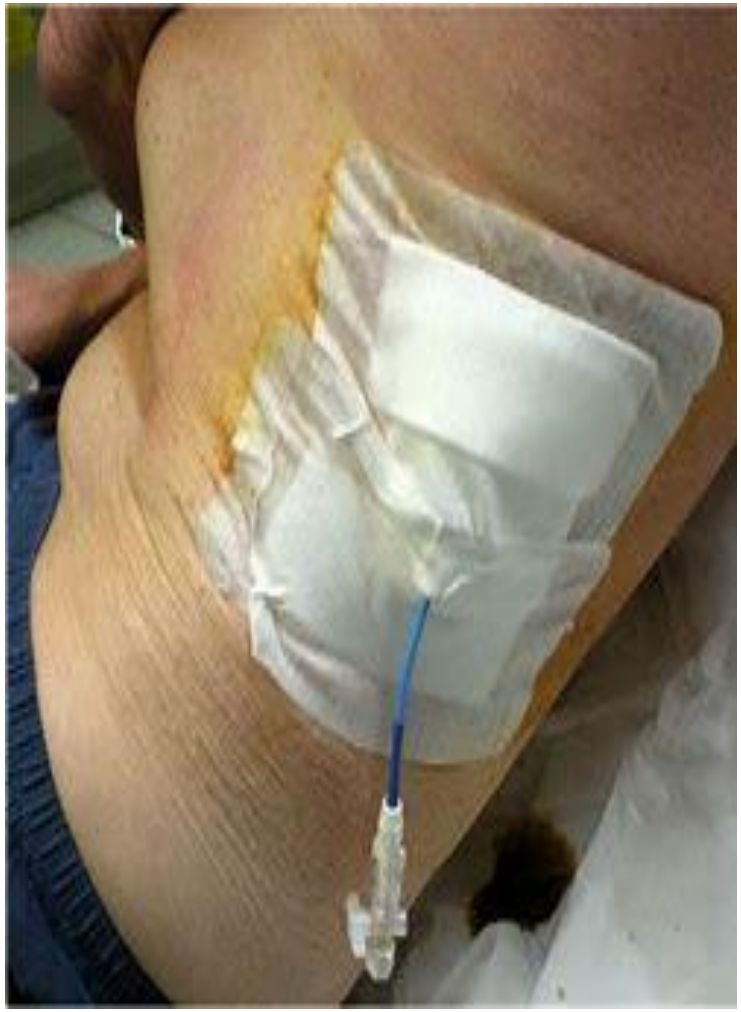

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DRENAGGIO →(dall'inglese to drain: prosciugare)

Ward

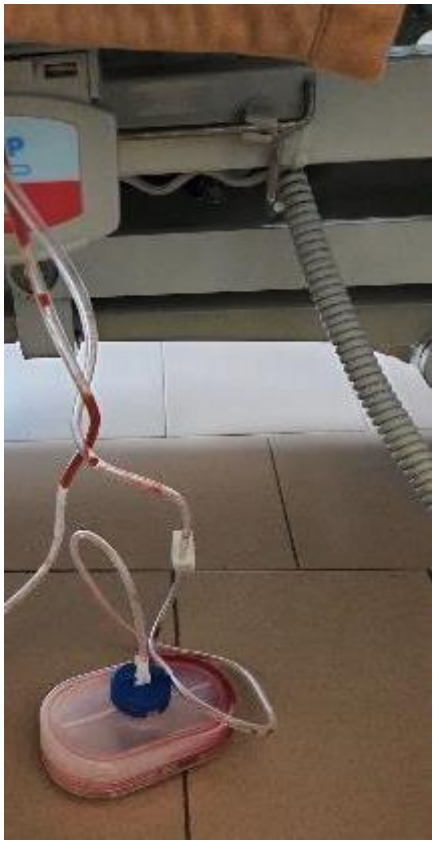
DRENAGGIO →(dall'inglese to drain: prosciugare)

- Drenaggio SIEROSO: presenza di siero
- Drenaggio ASCITICO: presenza di liquido ascitico (attenzione alla quantità!)
- Drenaggio SIERO-EMATICO: presenza di sangue misto a siero

- Drenaggio ematico: presenza di sangue color rosso vivo
- Drenaggio purulento: presenza di pus
- Drenaggio enterico: presenta di materiale enterico
- Drenaggio biliare: presenza di liquido biliare
- Drenaggio pancreatico: presenza di secrezione pancreatica
- Drenaggio chiloso: presenza di linfa

Ward

DRENAGGIO →(dall'inglese to drain: prosciugare)



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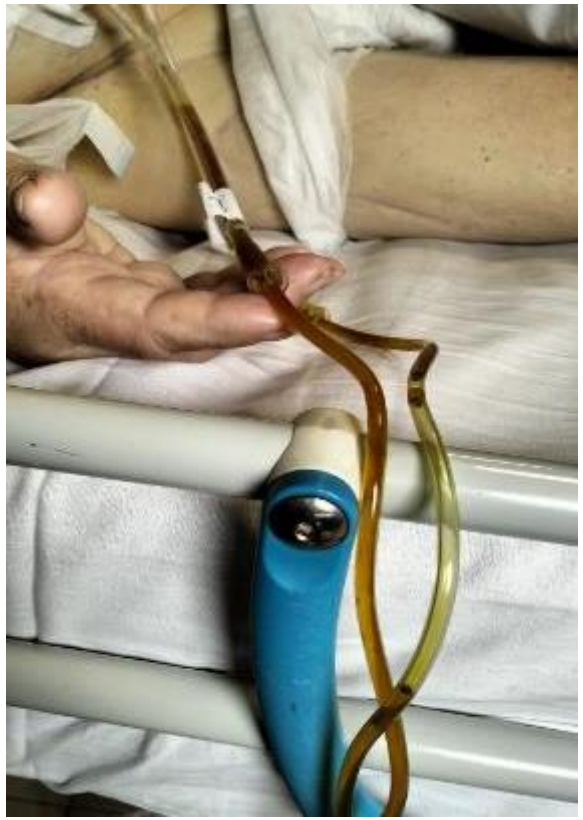


Ward

<u>DRENAGGIO</u> →(dall'inglese to drain: prosciugare)

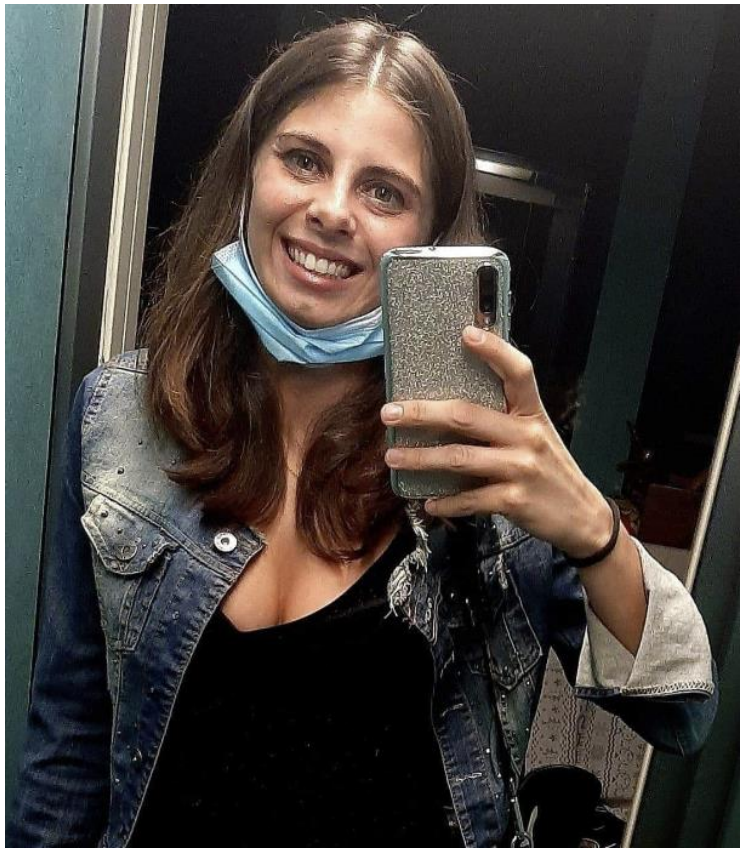
Postoperative management

- ✓ **Enhanced Recovery After Surgery (ERAS program)**

The ERAS program are nowadays available for gastrointestinal surgery. In those places in which such programs are routinely applied one of the most important steps is the psychological counselling meaning that the prepared patient heals faster – even from the psychological standpoint.

Ward

Credits:



POCOROBBA AMANDA

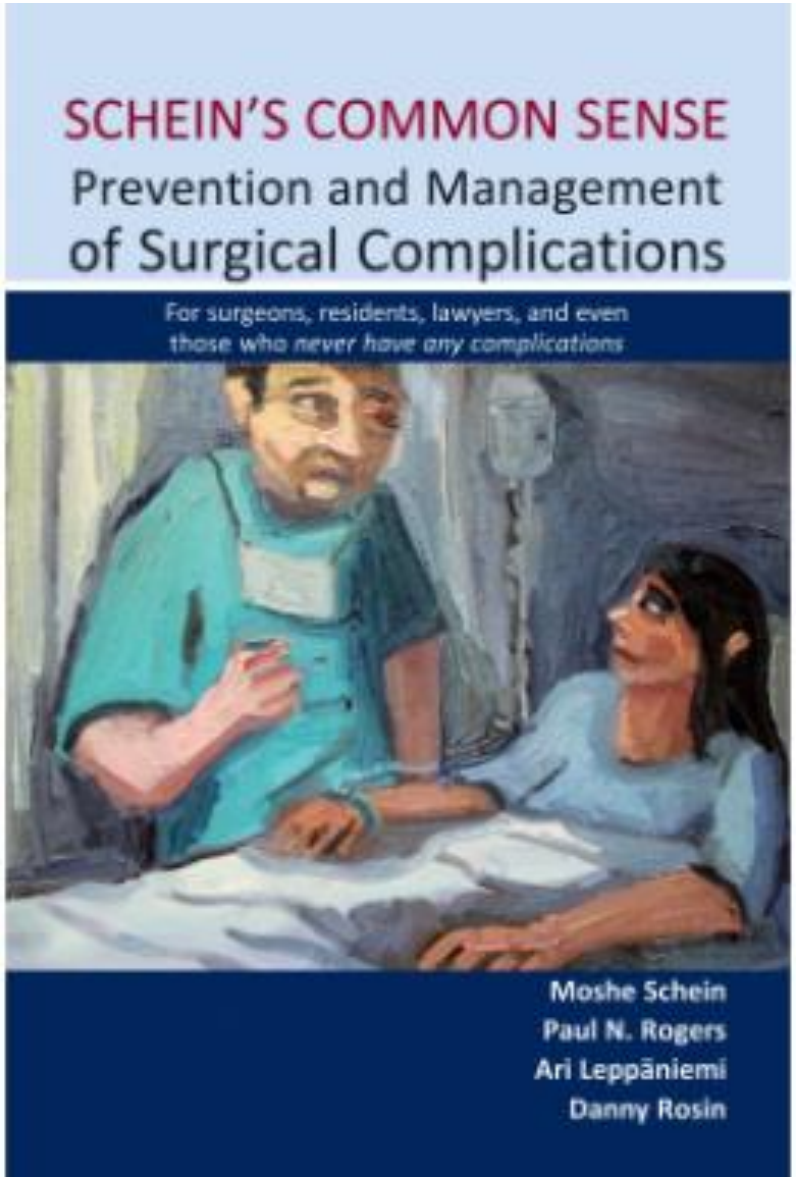
CPSI INFERMIERA

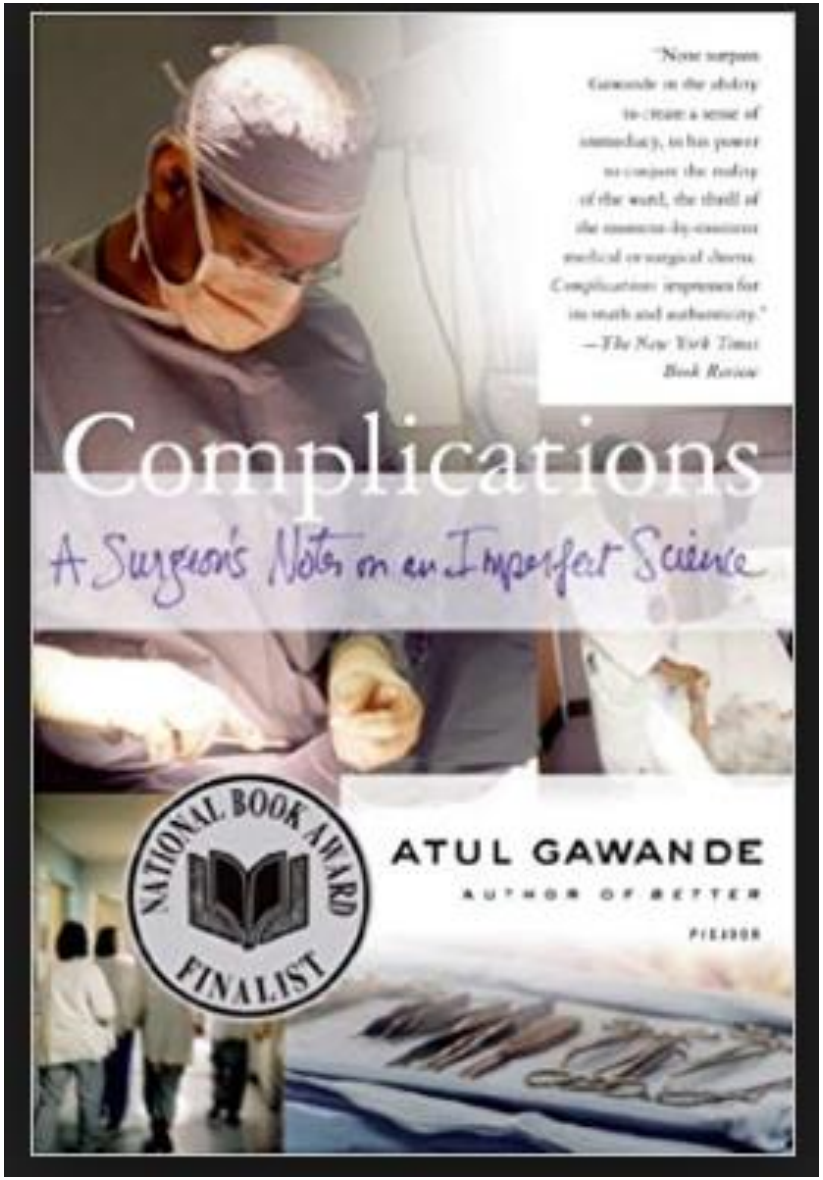
ANDORNO VITTORIA

CPSI INFERMIERA

Questions ?

Suggested reading





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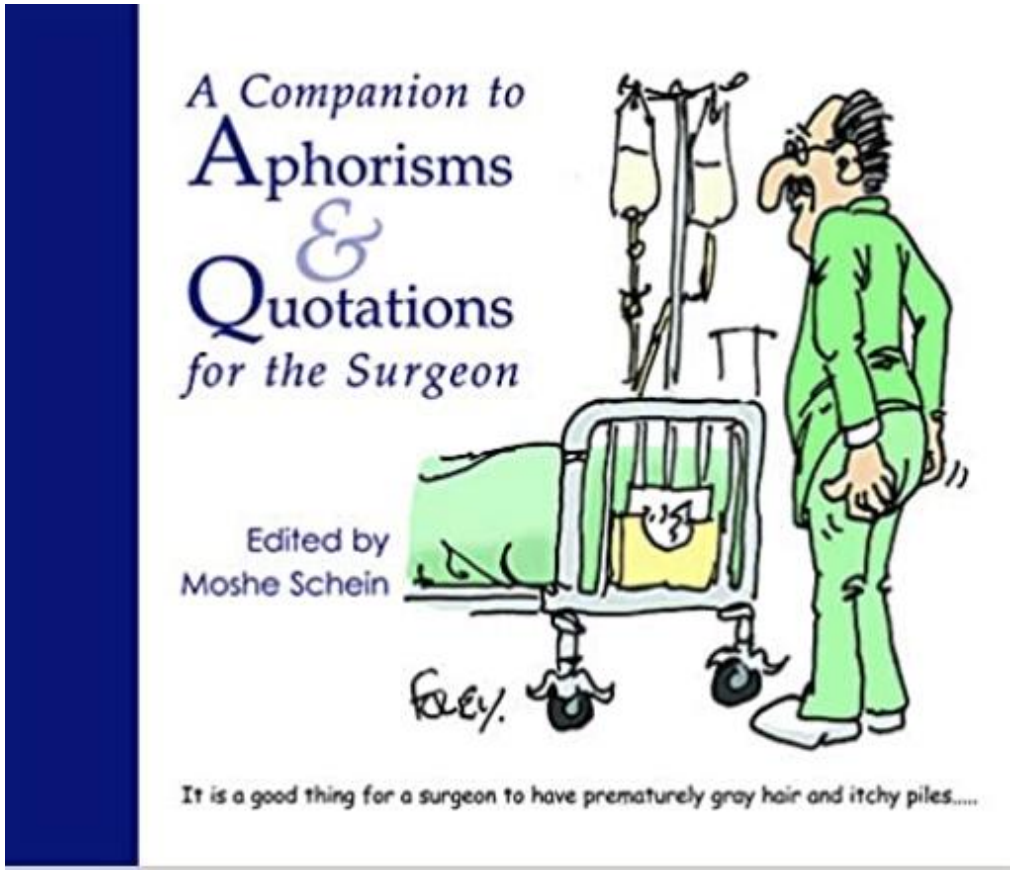

Questions ?