

Hernia

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What is a hernia?

- A hernia is an abnormal weakness or hole in an anatomical structure which allows something inside to protrude through.
- It is commonly used to describe a weakness in the abdominal wall.

- Hernias by themselves usually are harmless, but nearly all have a potential risk of having their blood supply cut off (becoming strangulated).
- If the blood supply is cut off at the hernia opening in the abdominal wall, it becomes a medical and surgical emergency.



Types of Hernias

- Inguinal hernia: Makes up 75% of all abdominal wall hernias and occurring up to 25 times more often in men than women.
- Two types of inguinal hernias: indirect inguinal hernia and direct inguinal hernia.
 - Indirect inguinal hernia
 - follows pathway that testicles made during prebirth development.
 - This pathway normally closes before birth but remains a possible place for a hernia.

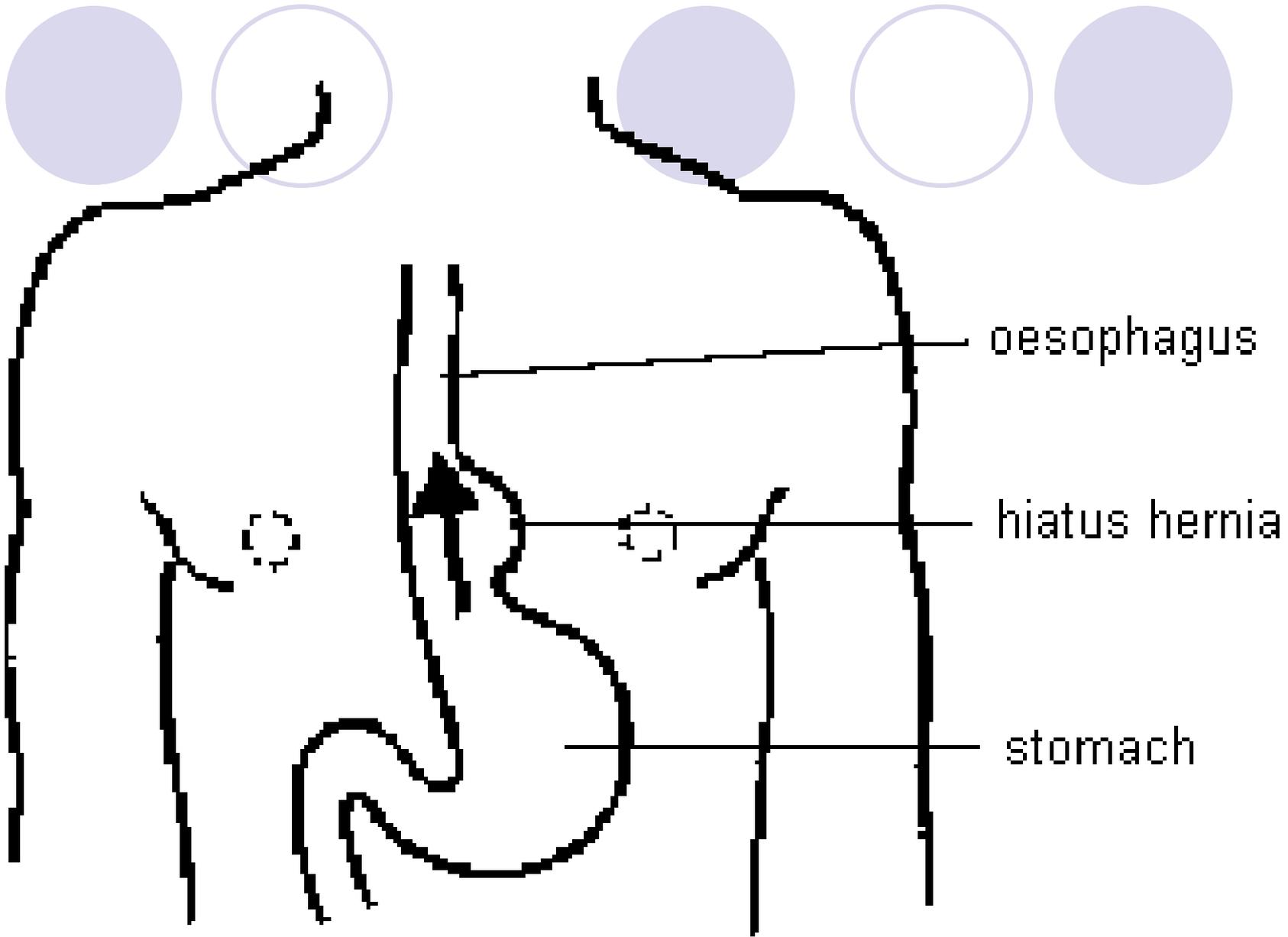
Cont.

- Sometimes the hernial sac may protrude into the scrotum.
- This type of hernia may occur at any age but becomes more common as people age.
- Direct inguinal hernia
 - This occurs slightly to the inside of the site for the indirect hernia, in a place where the abdominal wall is naturally slightly thinner.
 - It rarely will protrude into the scrotum.
 - The direct hernia almost always occurs in the middle-aged and elderly because their abdominal walls weaken as they age.

Types Cont.

- Hiatus hernia

- A hiatus hernia occurs when the upper part of the stomach, which is joined to the oesophagus (gullet), moves up into the chest through the hole (called a hiatus) in the diaphragm.
- It is common and occurs in about 10 per cent of people.



Hiatus hernia

- Symptoms include:
 - Heartburn
 - Sudden regurgitation
 - Belching
 - Pain on swallowing hot fluids
 - Feeling of food sticking in the oesophagus

Hiatus hernia

- It is most common in overweight middle-aged women and elderly people.
- It can occur during pregnancy.
- The diagnosis is confirmed by barium meal X-rays or by passing a tube with a camera on the end into the stomach (gastroscopy).

Treatment for Hiatus Hernia

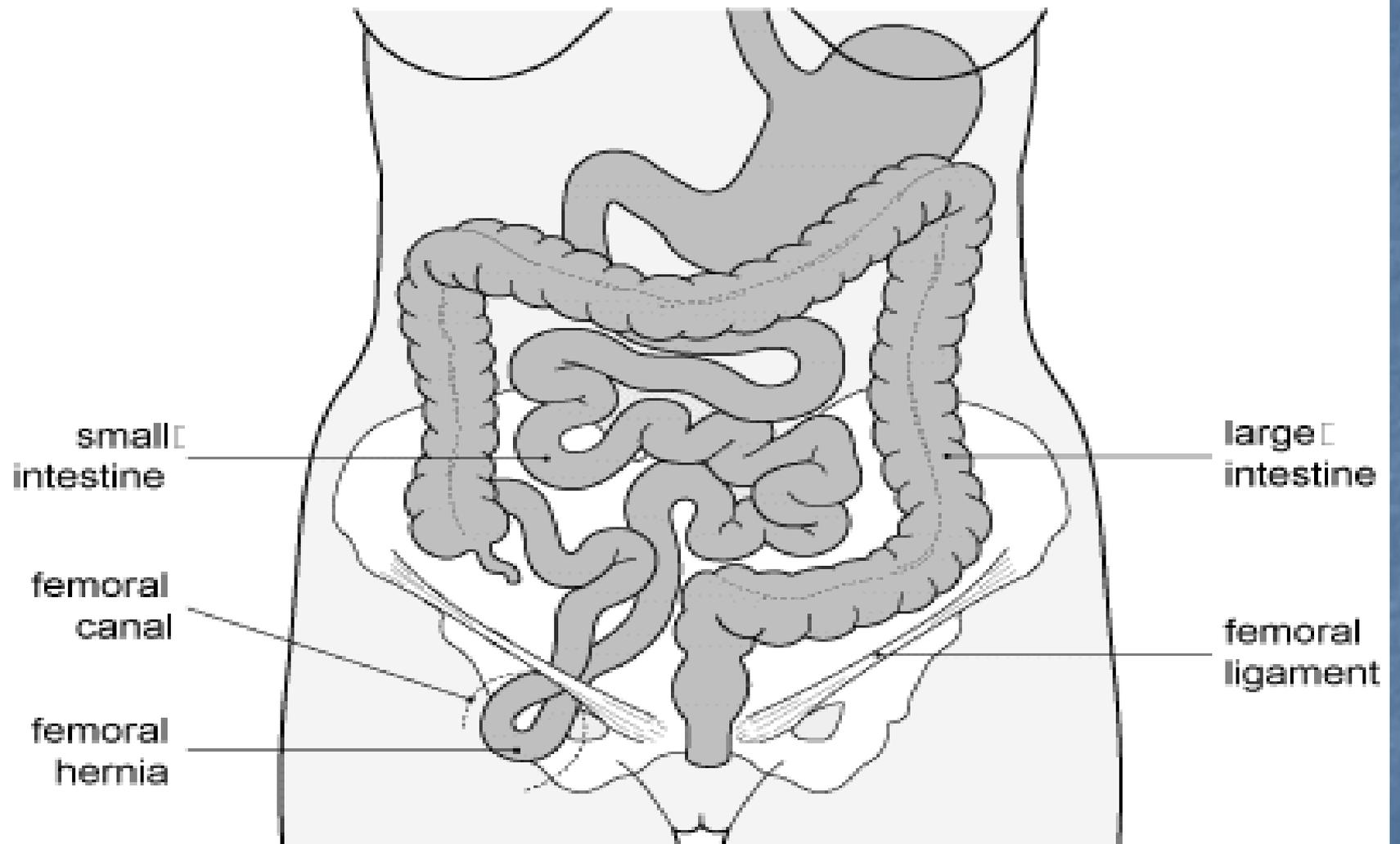
- Losing weight nearly always cures it.
- Eating small meals each day instead of 2 or 3 large ones helps.
- Avoid smoking.
- Take antacid.
- Avoid spicy food.
- Avoid hot drinks.
- Avoid gassy drinks.

Types Cont.

■ Femoral hernia

- The femoral canal is the way that the femoral artery, vein, and nerve leave the abdominal cavity to enter the thigh.
- Although normally a tight space, sometimes it becomes large enough to allow abdominal contents (usually intestine) into the canal.
- This hernia causes a bulge below the inguinal crease in roughly the middle of the thigh.
- Rare and usually occurring in women, these hernias are particularly at risk of becoming irreducible and strangulated.

Femoral hernia

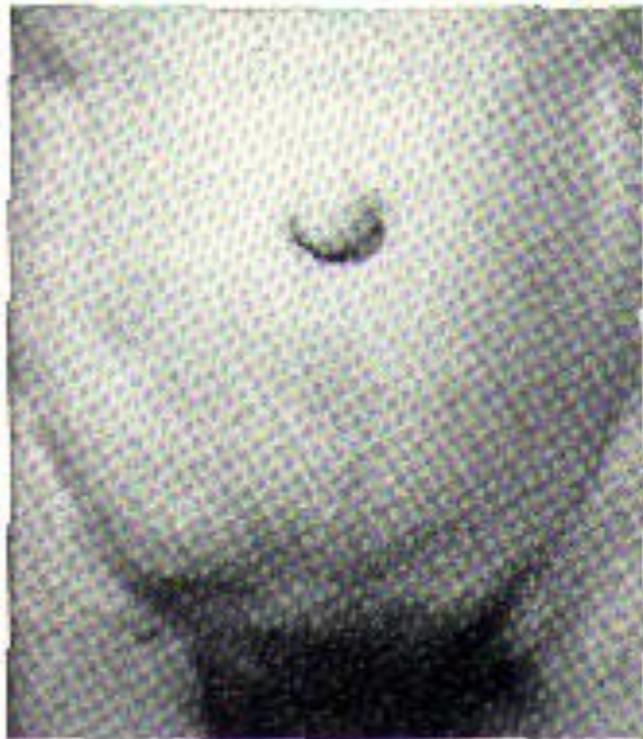


Types Cont.

■ Umbilical hernia

- These common hernias (10-30%) are often noted at birth as a protrusion at the bellybutton (the umbilicus).
- This is caused when an opening in the abdominal wall, which normally closes before birth, doesn't close completely.
- Even if the area is closed at birth, these hernias can appear later in life because this spot remains a weaker place in the abdominal wall.
- They most often appear later in elderly people and middle-aged women who have had children.

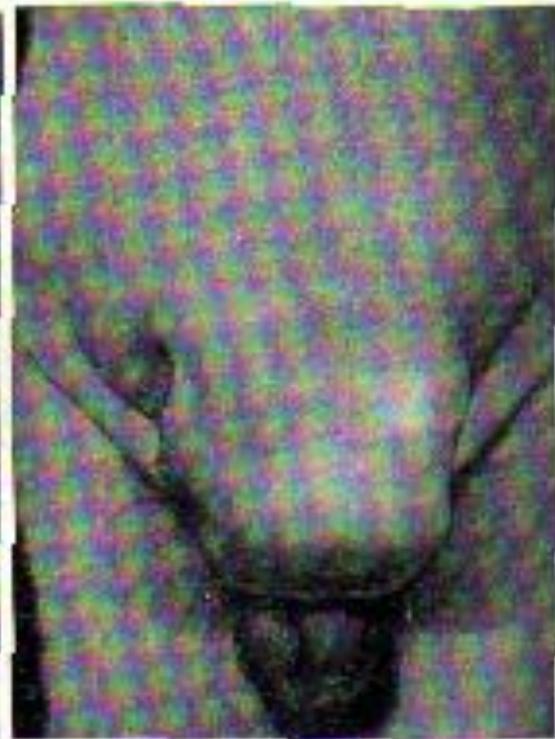
Para umbilical hernia



Small.



Large.



Very large.

Types Cont.

■ Incisional hernia

- Abdominal surgery causes a flaw in the abdominal wall that must heal on its own.
- This flaw can create an area of weakness where a hernia may develop.
- This occurs after 2-10% of all abdominal surgeries, although some people are more at risk.
- After surgical repair, these hernias have a high rate of returning (20-45%).

Types Cont.

- Spigelian hernia
 - This rare hernia occurs along the edge of the rectus abdominus muscle, which is several inches to the side of the middle of the abdomen.

Types Cont.

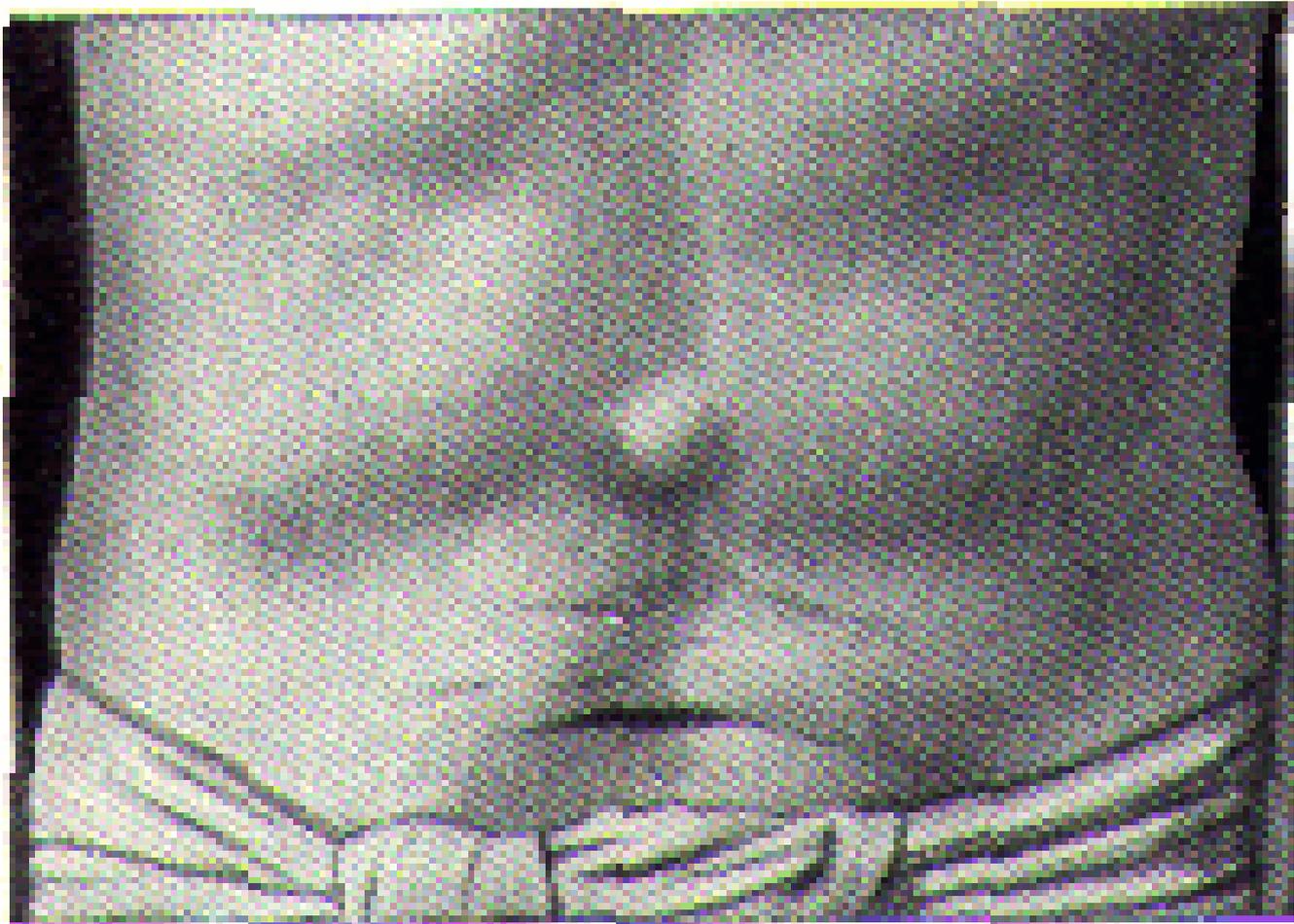
■ Obturator hernia

- This extremely rare abdominal hernia happens mostly in women.
- This hernia protrudes from the pelvic cavity through an opening in your pelvic bone (obturator foramen).
- This will not show any bulge but can act like a bowel obstruction and cause nausea and vomiting.

Types Cont.

- Epigastric hernia

- Occurring between the navel and the lower part of the rib cage in the midline of the abdomen, these hernias are composed usually of fatty tissue and rarely contain intestine.
- Formed in an area of relative weakness of the abdominal wall, these hernias are often painless and unable to be pushed back into the abdomen when first discovered.



Epigastric hernia

Epigastric

Paraumbilical

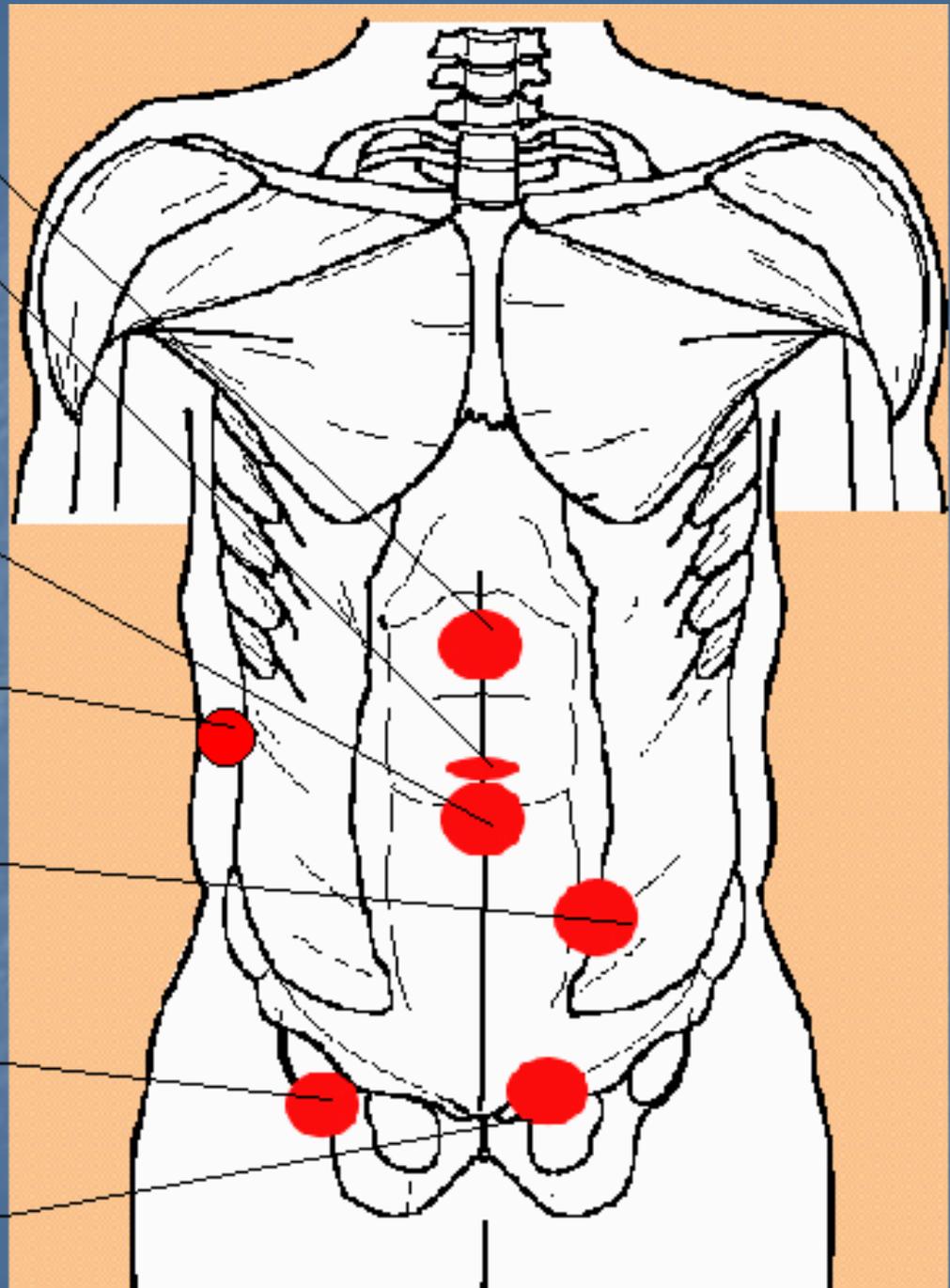
Umbilical

Lumbar

Spigelian

Femoral

Inguinal



Causes of hernias

- Any condition that increases the pressure of the abdominal cavity may contribute to the formation or worsening of a hernia.
 - Obesity
 - Heavy lifting
 - Coughing
 - Straining during a bowel movement or urination
 - Chronic lung disease
 - Fluid in the abdominal cavity
 - Hereditary

Signs and Symptoms

- The signs and symptoms of a hernia can range from noticing a painless lump to the painful, tender, swollen protrusion of tissue that you are unable to push back into the abdomen—possibly a strangulated hernia.
 - Asymptomatic reducible hernia
 - New lump in the groin or other abdominal wall area
 - May ache but is not tender when touched.
 - Sometimes pain precedes the discovery of the lump.

Cont.

- Lump increases in size when standing or when abdominal pressure is increased (such as coughing)
- May be reduced (pushed back into the abdomen) unless very large
- Irreducible hernia
 - Usually painful enlargement of a previous hernia that cannot be returned into the abdominal cavity on its own or when you push it
 - Some may be long term without pain

Cont.

- Can lead to strangulation
- Signs and symptoms of bowel obstruction may occur, such as nausea and vomiting
- Strangulated hernia
 - Irreducible hernia where the entrapped intestine has its blood supply cut off
 - Pain always present followed quickly by tenderness and sometimes symptoms of bowel obstruction (nausea and vomiting)
 - You may appear ill with or without fever

Cont.

- Surgical emergency
- All strangulated hernias are irreducible (but all irreducible hernias are not strangulated)

When to call the doctor!

- All newly discovered hernias or symptoms that suggest you might have a hernia should prompt a visit to the doctor.
- Hernias, even those that ache, if they are not tender and easy to reduce (push back into the abdomen), are not surgical emergencies, but all have the potential to become serious.
- Referral to a surgeon should generally be made so that you can have surgery by choice (called elective surgery) and avoid the risk of emergency surgery should your hernia become irreducible or strangulated.

Diagnosis

- If you have an obvious hernia, the doctor will not require any other tests
- If you have symptoms of a hernia the doctor may feel the area while increasing abdominal pressure (having you stand or cough).
- This action may make the hernia able to be felt.

Treatment

- Treatment of a hernia depends on whether it is reducible or irreducible and possibly strangulated.
 - Reducible
 - Can be treated with surgery but does not have to be.
 - Irreducible
 - All acutely irreducible hernias need emergency treatment because of the risk of strangulation.
 - An attempt to push the hernia back can be made

Treatment Cont.

- Strangulation
 - Operation
- Prevention
 - You can do little to prevent areas of the abdominal wall from being or becoming weak, which can potentially become a site for a hernia.

References

- <http://www.emedicine.com/aaem/topic248.htm>
- Osburn, Kimberly Pagewise 2002
- Medline Plus American Medical Association