





شمسه

[[ مؤلم ان ]]

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هذه الكلمات

على رسم الابتسامه

حياتها



# الألم Pain

'Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of damage'. It follows from this that pain is always a subjective sensation and is always unpleasant. It is a part of everyday life and is a feature of various diseases. It most commonly accompanies an injury, where it serves its most important purpose, namely, to protect us, alert us, and to make us remove ourselves from danger. The severity of pain, and its impact on an individual, ranges from a trivial occurrence such as a needle-prick injury to a sensation of such intensity that it induces thoughts of suicide.

- :Pain may be classified according to •
- \*Aetiology and pathogenesis •
- \*Duration •
- . \*Site •

## :AETIOLOGY AND PATHOGENESIS •

**-Physiological** .an acute response to an injury

**Inflammatory** when the pain is generated and •  
maintained mainly by inflammatory mediators

**Cancer-related pain** aetiology is usually multifactorial. It •  
predominantly physiological, inflammatory, - may be  
neuropathic or ischaemic, or any combination of the  
.above

**Neuropathic** pain arising from injury or dysfunction of •  
.- the central or peripheral nervous system

**Central** pain caused by a lesion or dysfunction of the •  
central nervous system. It can affect the brain or the  
.- spinal cord, or both

**Ischaemic** related to reduction in blood supply to organs •  
or nerves that supply the organs, or both. It may or may  
.- not be associated with cancer

**Psychogenic** pain, especially chronic pain, has almost •  
invariably a strong and important emotional and  
behavioural component. Purely psychogenic pain is rare

.- •

## DURATION •

**Acute** most commonly a physiological response to an injury. It resolves with the disappearance of a noxious stimulus or within the time frame of a normal healing process (less than 3 months) •

**Chronic** it can either be associated with an ongoing pathological process, such as rheumatoid arthritis or malignancy, or be present for longer than is consistent with a normal healing time. Pain is arbitrarily described as chronic if it persists for longer than 3 months. Chronic pain is often associated with disability and a significant behavioural response •

## SITE •

**Somatic** usually well localized: for •  
example, it may follow a dermatomal  
.distribution

**Visceral** poorly localized. Does not - •  
.- follow a dermatomal distribution

**Referred** pain that originates in one site •  
but is perceived as being present in a  
.closely related or distant site



# Characteristics of pain

- 1-site this may give a clue to the underlying pathology •
- 2-radiation pain may follow a dermatomal or peripheral nerve distribution, or have no relation to anatomical patterns •
- 3-character(dull ,stabbing ... •
- 4-severity •
- 5-onset •
- 6-duration •
- 7-course and pattern (contineuse ,.. variation day&night •
- 9-aggrevating factors •
- 10-Relieving factors •
- 11-associated symptoms •

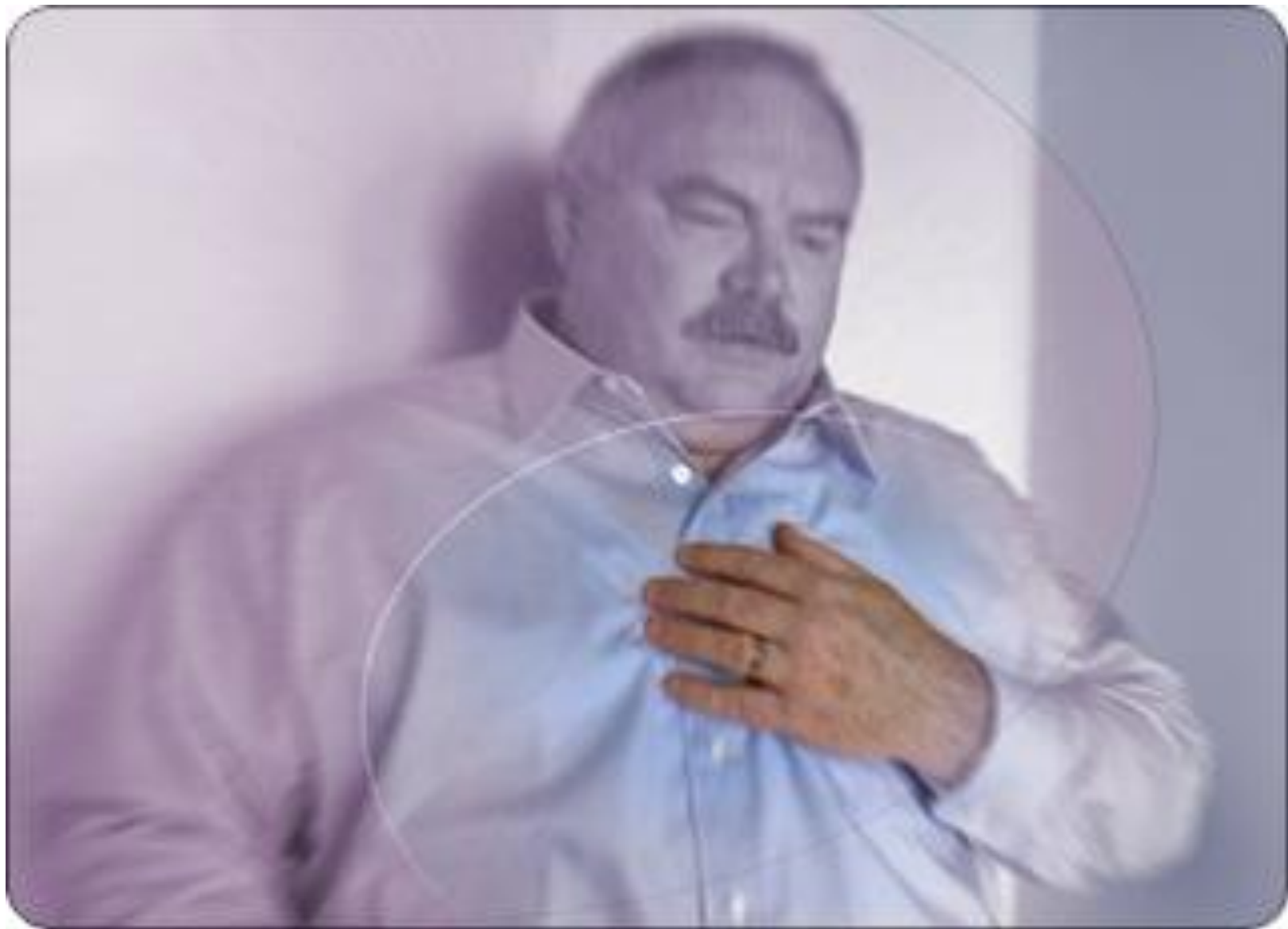
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**Chest Pain** The causes of chest pain range from non-serious to life threatening

## **Epidemiology**

5% of all ED visits

Approximately 5 million visits per year in USA



# Differential Diagnosis of Chest Pain

Non Cardiac •

Cardiac •

# Non Cardiac Chest Pain

## **Pulmonary •**

- Pneumonia –
- Pleuritis –
- Pneumothorax –
- Pulmonary Embolism –
- Tumor –
- Treachitis and bronchitis –

## **Gastrointestinal •**

- GERD –
- Esophageal spasm –
- Mallory-Weiss Tear –
- Peptic Ulcer disease –
- Biliary/Gallbladder Disease –
- Pancreatitis –
- Achalasia & other neuro muscular disorder •
- Functional dyspepsia •

## **Musculoskeletal •**

- Costochondritis –
- Cervical Disk Disease –
- Rib Fracture –
- Intercostal Muscle Cramp –

## **Other •**

- Herpes Zoster –
- Disorders of the Breast –
- Splenic Infarct –
- Panic Attacks/Anxiety Disorder –
- Fibromyalgia –
- DKA –

# Cardiac Chest Pain

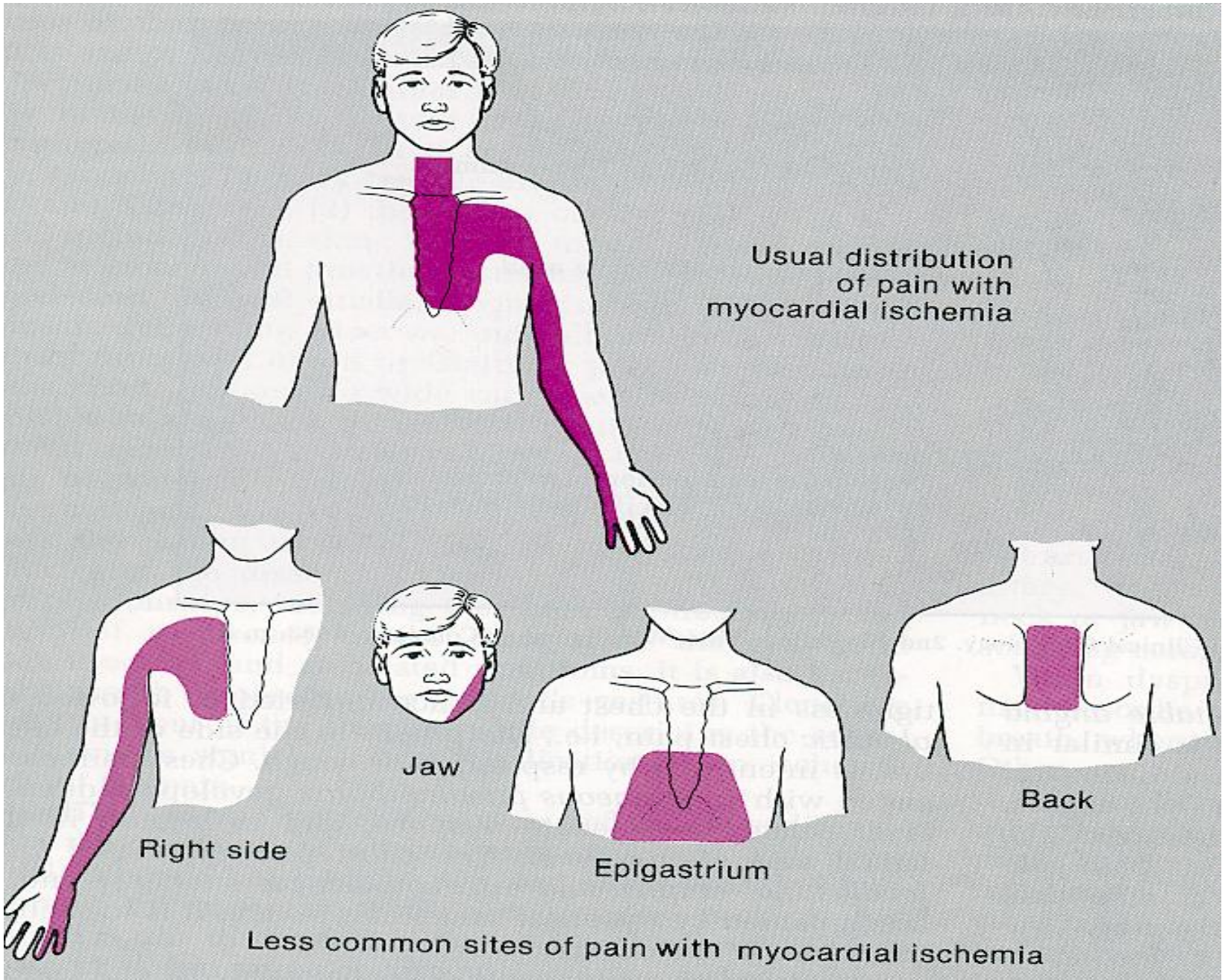
- Aortic Dissection •
- Pulmonary Embolism •
- Pulmonary •
- Hypertension
- Pericardial Diseases •
- Aortic Stenosis •
- Heart Failure •
- Cocaine Abuse •
- Acute Coronary •
- Syndromes
- Stable Angina –
- Unstable Angina –
- Myocardial Infarction –
- Cardiogenic Shock –

# Life Threatening Causes of Chest Pain

- Acute Coronary Syndromes •
- Pulmonary Embolus •
- Tension Pneumothorax •
- Aortic Dissection •
- Esophageal Rupture •
- Pericarditis with Tamponade •

How do you distinguish cardiac chest pain from non-cardiac chest pain?





# Physical Exam

Neck: JVD, crepittance, bruits •

Abdomen •

Extremities: swelling, pulses, tenderness, •

Homan's

Character/Quality of the pain •

Location and Radiation of the pain •

Associated symptoms •

What exacerbates and what relieves the pain •

Duration of the pain •

Have they had it in the past and what was it attributed to? •

PHx •

Social history •

FHx •

# Physical Exam

General Appearance and Vitals (sick vs not sick) •

Chest exam •

-Inspection (scars, heaves, tachypnea, work of breathing)

-Auscultation (murmurs, rubs, gallops, breath sounds)

-Percussion (dullness)

-Palpation (tenderness, PMI)

# Diagnostic approach [[edit](#)]

History(characters of pain...

Examination

**Investigation**

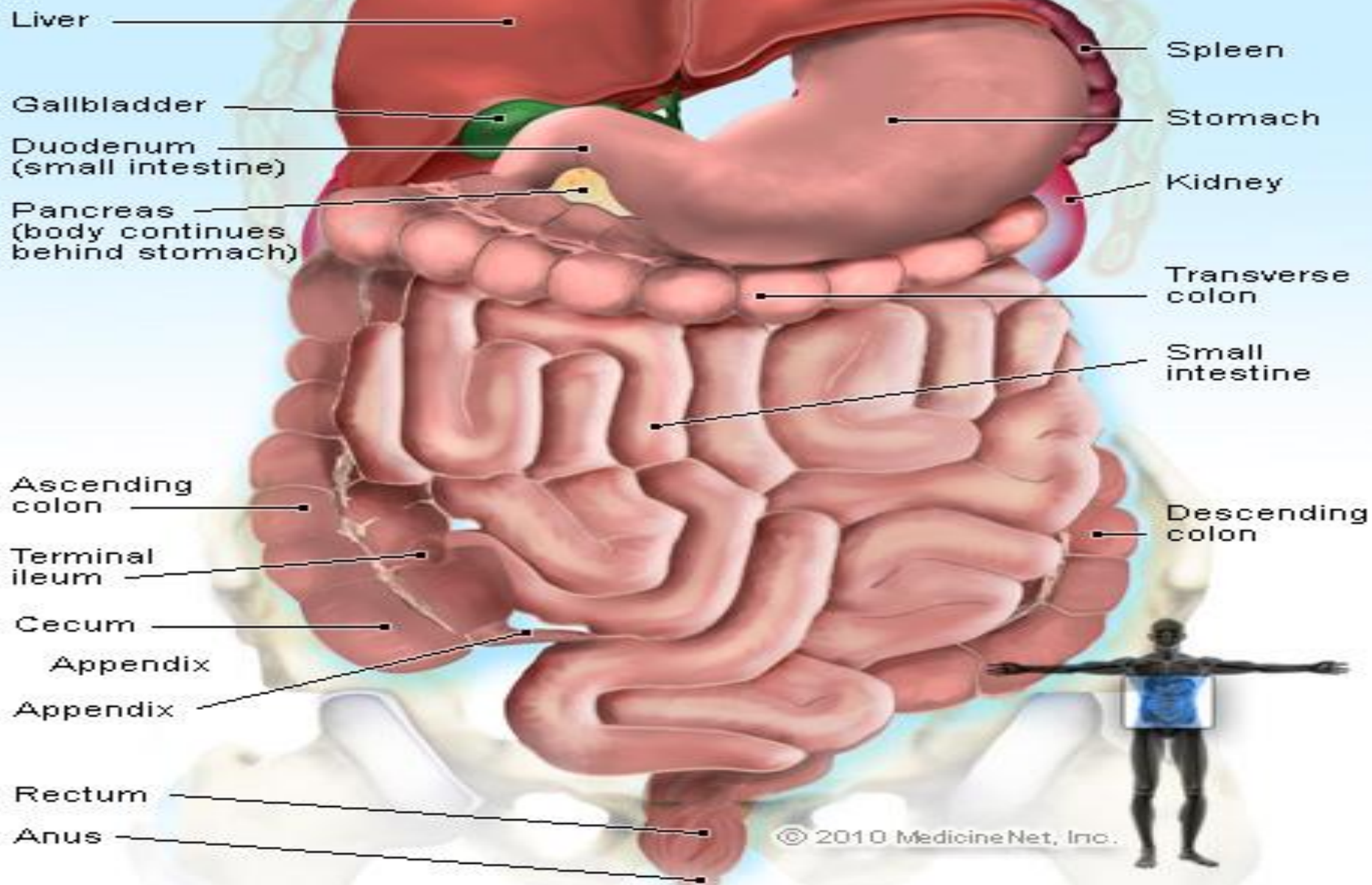
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- Routine X-rays and CT may however not be needed.[3]
- An electrocardiogram (ECG)
- V/Q scintigraphy or CT pulmonary angiogram(when a pulmonary embolism is suspected)
- Blood tests: Complete blood count
- Electrolytes and renal function (creatinine)
- Liver enzymes
- Creatine kinase (and *CK-MB* fraction in many hospitals)
- Troponin I or T (to indicate myocardial damage)
- D-dimer (when suspicion for pulmonary embolism is present but low)
- serum amylase to exclude acute pancreatitis

# Abdominal Pain



# Anatomy of the Abdomen



Abdominal pain is pain that is felt in the abdomen. •

The abdomen is an anatomical area that is bounded •  
by the lower margin of the ribs and diaphragm above,  
the pelvic bone (pubic ramous) below, and the flanks  
on each side.

the term abdominal pain generally is used to describe •  
pain originating from organs within the abdominal  
cavity. Organs of the abdomen include the stomach,  
small intestine, colon, liver, gallbladder, spleen, and  
pancreas

**A**lthough abdominal pain can arise from the tissues of •  
the abdominal wall that surround the abdominal cavity  
(such as the skin and abdominal wall muscles),



Occasionally, pain may be felt in the • abdomen even though it is arising from organs that are close to, but not within, the abdominal cavity. For example, conditions of the lower lungs, the kidneys, and the uterus or ovaries can cause abdominal pain. On the other hand, it also is possible for pain from organs within the abdomen to be felt outside of the abdomen. For example, the pain of pancreatic inflammation may be felt in the back. These latter types of pain are called "referred" pain because the pain does not originate in the location that it is felt. Rather, the cause of the pain is located away from . . .where it is felt

# causes abdominal pain

- Abdominal pain is caused by inflammation diverticulitis.....
- (colitis
- , stretching or distention of an organ (for example, obstruction of the intestine blockage of a bile duct by gallstones , or by loss of the supply of blood to an organ (for example ischemic colitis
- Swelling of the liver with hepatitis
- irritable bowel syndrome
- Others causes of abd. pain
- 1-lower pulm. causes(pneumonia..
- 2-CVS (inferior MI
- 3-urinary system(infection ,stones ,inflamation..
- 4-gynaec.&ostetrical causes(
- 5-abdominal wall &skin
- 6-others

# management

- History(&characters of abd. Pain...)
- Examination
- Investigation

1-Plain X-rays of the abdomen show the distribution of gas within the small and large intestines and are useful in the diagnosis of intestinal obstruction or paralytic ileus where dilated loops of bowel and (in the erect position) fluid levels are seen. The outlines of soft tissues such as liver, spleen and kidneys may be visible, and calcification of these organs as well as pancreas, blood vessels, lymph nodes and calculi may be detected. Abdominal X-rays do not help in cases of gastrointestinal bleeding. 2- A chest X-ray shows the diaphragm, and erect films may detect subdiaphragmatic free air in cases of perforation. Unexpected pulmonary problems such as pleural effusions will also be revealed

## 3-Barium studies

4-Ultrasound, computed tomography (CT) and magnetic resonance imaging (MRI)

5-Endoscopy

## 6-GSE

7-OTHERS INVESTIGATION (cbp&ESR .GUE ,CULTUERS ,LFT ,RFT , RBS  
,Pancreatic enzymes .....

# Back Pain

Most patients with acute neck or back pain have a musculoskeletal disorder that is self-limiting and does not require specific therapy. The pain may originate from a number of sources, including the vertebrae and intervertebral discs, facet joints, and .muscles and ligaments of the vertebral column

Because the thoracic spine is designed for rigidity rather than mobility, thoracic disc rupture is exceedingly rare. Acute-onset pain in the thoracic region may be due to dissection of the aorta or anterior spinal artery thrombosis

# causes

- m.s.spasm •
- Osteo arthritis •
- Infection •
- Trauma •
- Tumors •
- Disc prolaps •
- Spinal stenosis •
- Systemic diseases •
- others •