

# UPPER LIMB CLINICALS

## DESCRIPTION

CLINICAL	DESCRIPTION
<b>Winged Scapula</b>	-Paralysis of serratus anterior -Long thoracic nerve injury (due to blows or pressure on posterior triangle of neck or trauma to upper lateral chest wall)
<b>Carpal Tunnel Syndrome</b>	-Compression of median nerve -burning pain or “pins or needles” sensation along distribution of median nerve to the lateral three and a half fingers and weakness of thenar muscles
<b>Dupuytren Contracture</b>	-localized thickening and contracture of palmar aponeurosis -flexion of proximal interphalangeal joints
<b>Pulp space infection (Felon)</b>	Bacteria introduced into pulp space by pin pricks or sewing needles
<b>Supraspinatus tendon rupture</b>	Patient is unable to initiate abduction of arm
<b>Forearm compartment syndrome</b>	-increase in pressure within fascial compartments that can lead to decreased tissue perfusion -early diagnosis is critical. A delay of as little as 4 hours can cause irreversible damage to muscles -early signs include 1. altered skin sensation (caused by ischemia of sensory nerves passing through compartment) 2. pain disproportionate to any injury (caused by pressure on nerves within compartment) 3. pain on passive stretching of muscles that pass through the compartment (a late sign caused by edema) 4. absence of capillary refills in nail beds (caused by pressure on arteries within compartment)
<b>Volkman's ischemic contracture</b>	-contracture of muscles of forearm that commonly follows fractures of distal end of humerus or fractures of radius and ulna -A localized segment of brachial artery goes into spasm, reducing the arterial flow to the flexor and extensor muscles so they undergo ischemic necrosis - contractures are classified as mild, moderate or severe depending on the extent of soft tissue damage that has occurred
<b>Tennis elbow</b>	-partial tearing or degeneration of the origin of superficial extensor muscles from the lateral epicondyle of humerus - common in tennis players and violinists
<b>Stenosing tenosynovitis (Trigger finger)</b>	-Tenosynovitis is infection of synovial sheath -occurs when inflammation narrows the space within the sheath that surrounds the tendon in the affected finger - A palpable and even audible snapping happens when the patient is asked to flex and extend the fingers -advanced cases require surgical incision along the constricting sheath

<b>Avulsion fracture</b>	Occurs when a small chunk of bone attached to a tendon or ligament gets pulled away from main part of bone
<b>Mallet finger</b>	avulsion of the insertion of one of the extensor tendons into the distal phalanges if distal phalanx is forcibly flexed when extensor tendon is taut
<b>Tendon reflexes</b>	<p><b>Biceps brachii tendon reflex</b> (C<sub>5</sub>, C<sub>6</sub>) – flexion of elbow joint by tapping the biceps tendon</p> <p><b>Triceps tendon reflex</b> (C<sub>6</sub>, C<sub>7</sub>, C<sub>8</sub>) – extension of elbow joint by tapping triceps tendon</p> <p><b>Brachioradialis tendon reflex</b> (C<sub>5</sub>, C<sub>6</sub>, C<sub>7</sub>) – supination of the radioulnar joints by tapping the insertion of brachioradialis tendon</p>
<b>Erb-Duchenne palsy</b>	<ul style="list-style-type: none"> <li>-upper lesion of brachial plexus</li> <li>-excessive traction or tearing of C<sub>5</sub>, C<sub>6</sub> roots of plexus</li> <li>-paralysis of supraspinatus, infraspinatus, subclavius, coracobrachialis, biceps brachii, brachialis, deltoid, teres minor</li> <li>-waiter's tip posture</li> </ul>
<b>Klumpke's palsy</b>	<ul style="list-style-type: none"> <li>-lower lesion of brachial plexus</li> <li>-T<sub>1</sub> anterior ramus is usually torn</li> <li>- claw hand appearance</li> <li>-loss of sensation along medial side of arm</li> <li>- if C<sub>8</sub> anterior ramus is also damaged, the extent of anesthesia will involve medial side of forearm, hand and medial two fingers as well</li> </ul>
<b>Ulnar nerve injury</b>	<ul style="list-style-type: none"> <li>-paralysis of flexor carpi ulnaris and medial half of flexor digitorum profundus</li> <li>- paralysis of small muscles of hand except thenar compartment and first two lumbricals</li> <li>-patient unable to abduct and adduct the fingers and Froment's sign observed on examination</li> <li>-metacarpophalangeal joints become hyperextended and interphalangeal joints are extended due to paralysis of lumbricals and interosseous muscles</li> <li>-claw hand deformity</li> <li>-flattening of hypothenar muscles and loss of convex curve of medial border of hand due to wasting of paralyzed muscles</li> </ul>
<b>Radial nerve injury</b>	Wrist drop
<b>Allen's test</b>	Used to determine patency of ulnar and radial arteries
<b>Raynod's disease</b>	Raynaud's phenomenon is a problem that causes decreased blood flow to the fingers
<b>Lymphangitis</b>	<ul style="list-style-type: none"> <li>-infection of lymph vessels</li> <li>-red streaks appear along the course of lymph vessel</li> </ul>
<b>Lymphadenitis</b>	-Occurs when infection reaches the lymph nodes and the nodes become enlarged and tender
<b>Elbow joint arthrocentesis</b>	A minor procedure that involves removing the fluid (synovial fluid) from the elbow joint cavity through a needle (aspiration). This aspirated fluid help diagnose the cause of elbow swelling and underlying diseases

# LOWER LIMB CLINICALS

## DESCRIPTION

CLINICAL	DESCRIPTION
<b>Coxa valga and vera</b>	Normal angle between neck of femur and shaft = 125° In coxa valga angle > 125° In coxa vera, angle < 125°
<b>Gluteus maximus injections</b>	Injections should be given in upper outer quadrant to avoid damage to sciatic nerve
<b>Poliomyelitis</b>	-poliomyelitis involve lower lumbar and sacral segments of spinal cord -Superior gluteal nerve (L <sub>4</sub> , L <sub>5</sub> , S <sub>1</sub> ) supplies gluteus medius and minimus muscles. Paralysis of these muscles seriously interferes with the ability of patient to tilt the pelvis when walking
<b>Emergency blood transfusion</b>	Constant position of great saphenous vein should be remembered for emergency blood transfusion
<b>Varicose veins</b>	-varicose vein is one that has a larger diameter than normal and is elongated and tortuous -commonly occurs in superficial veins of lower limb
<b>Great saphenous vein cutdown</b>	-is indicated for the purpose of emergency venous access -the skin incision is usually performed at the ankle although phlebitis (inflammation of the vein wall) is a potential complication in this region -great saphenous vein can also be entered at the groin in the femoral triangle
<b>Great saphenous vein in bypass surgery</b>	Great saphenous vein is used in coronary bypass surgery It can also be used to bypass obstructions of the brachial or femoral arteries.
<b>Femoral hernia</b>	-A femoral hernia is protrusion of contents from abdominal or pelvic cavity, through the femoral ring into the femoral canal -The neck of the sac always lie below and lateral to the pubic tubercle
<b>Inguinal hernia</b>	The neck of the sac lies above and medial to pubic tubercle
<b>Saphenous varix</b>	A localized dilation of terminal part of great saphenous vein
<b>Common fibular nerve injury</b>	-common fibular nerve is extremely vulnerable to injury as it winds around the neck of fibula - injury causes footdrop
<b>Plantar fasciitis</b>	-occurs in individuals who do a great deal of standing or walking -causes pain and tenderness of the sole of foot -cause may be repeated minor trauma -repeated attacks of condition induce ossification in the posterior attachment of aponeurosis, forming a calcaneal spur
<b>Referred Hip Joint pain</b>	-the pain originating in hip joint may refer to the front and medial side of thigh due to common supply of femoral nerve -hip joint disease may sometimes give rise to pain in knee joint due to innervation of posterior division of obturator nerve
<b>Tendelenburg gait</b>	Positive tendelenburg gait is usually found in people with abductor muscles of the hip which are supplied by superior gluteal nerve

<b>Pneumoarthrography</b>	Radiography of a joint after injection of air
<b>Arthroscopy</b>	Arthroscopy is a surgical procedure doctors use to look at, diagnose, and treat problems inside a joint.
<b>Hallux valgus</b>	<ul style="list-style-type: none"> <li>-most common foot deformity</li> <li>-lateral deviation of great toe at metatarsophalangeal joint</li> <li>-associated with badly fitted shoes</li> <li>-the condition may worsen to hallux rigidus when osteoarthritic changes occur in metatarsophalangeal joint</li> </ul>
<b>Pes planus</b>	<ul style="list-style-type: none"> <li>-flat foot</li> <li>-medial longitudinal arch is depressed or collapsed</li> </ul>
<b>Pes cavus</b>	<ul style="list-style-type: none"> <li>-claw foot</li> <li>-medial longitudinal arch is unduly high</li> </ul>
<b>Sciatic nerve injury</b>	<ul style="list-style-type: none"> <li>-hamstring muscles are paralyzed</li> <li>-weak flexion of knee is possible because of action of Sartorius (femoral nerve) and gracilis (obturator nerve)</li> <li>-all muscles below knee are paralyzed</li> <li>-weight of foot causes it to assume plantar-flexed position, or footdrop</li> </ul>
<b>Sciatica</b>	-pain along the sensory distribution of sciatic nerve

# THORAX CLINICALS

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<b>Sternum and marrow biopsy</b>	Because of its morphology and shallow depth in the chest, the sternum can be punctured readily in a needle biopsy procedure (sternal puncture) for aspiration of red marrow.
<b>Rib contusion</b>	-bruising of the ribs, secondary to trauma -small hemorrhage occurs beneath periosteum
<b>Thoracic outlet syndrome</b>	-obstruction of the thoracic outlet may compress the neurovascular structures such as brachial plexus of nerves (C <sub>5</sub> to C <sub>8</sub> and T <sub>1</sub> ), subclavian artery and vein
<b>Hiccup</b>	-involuntary spasmodic contraction of diaphragm accompanied by approximation of vocal folds and closure of glottis of larynx -it is a common condition in normal individuals and occurs after eating or drinking as a result of gastric irritation of vagus nerve endings -It may be a symptom of disease such as pleurisy, peritonitis, pericarditis, or uremia
<b>Diaphragm paralysis</b>	-A single dome of diaphragm may be paralyzed by crushing or sectioning of phrenic nerve in the neck. This may be necessary in treatment of certain forms of lung tuberculosis, when the physician wishes to rest the lower lobe of lung on one side. -A paralyzed hemidiaphragm assumes a hyperelevated posture rather than a depressed (flattened) posture
<b>Referred pain</b>	-A pulmonary thromboembolism or pneumonia with pleurisy involving the costal parietal pleura can give rise to abdominal pain and tenderness and rigidity of abdominal musculature. The abdominal pain in these instances is called referred pain -This is due to dermatomes of intercostal nerves
<b>Herpes zoster (Shingles)</b>	-A relatively common condition caused by reactivation of latent varicella-zoster virus in a patient who has previously had chickenpox - An acute viral infection of nerve cells and surrounding skin
<b>Intercostal nerve block</b>	Complications in intercostal nerve block include pneumothorax and hemorrhage -Pneumothorax can occur if needlepoint misses the subcostal groove and penetrates too deeply through parietal pleura -Hemorrhage is caused by puncture of intercostal blood vessels
<b>Needle Thoracostomy</b>	-Creating and maintaining an opening into the thoracic cavity by using a needle. This may be necessary in patients with tension pneumothorax or to drain fluid away from pleural cavity to allow the lung to reexpand. It may also be necessary to withdraw a sample of pleural fluid for microbiologic examination. -The preferred insertion site for a tube thoracostomy is the fourth or fifth intercostal space at anterior axillary line

<b>Thoracotomy</b>	Thoracotomy is making an incision through the thoracic wall into the pleural space. This may be a life saving procedure in patients with penetrating chest wounds with uncontrolled intrathoracic hemorrhage
<b>Thoracic changes with aging</b>	<ul style="list-style-type: none"> <li>-the rib cage become more rigid and loses its elasticity as a result of calcification and even ossification of costal cartilages. Their usual radiological appearance is also altered</li> <li>- Kyphosis due to degeneration</li> <li>- Disuse atrophy of thoracic and abdominal muscles can result in poor respiratory movements</li> <li>- degeneration of elastic tissue in lungs and bronchi result in impairment of movement of expiration</li> </ul>
<b>Rib and costal cartilage identification</b>	<p>Finger moved to right or left of sternal angle directly passes into the second costal cartilage and then the second rib. All other ribs can be counted from this point.</p> <p>The 12<sup>th</sup> rib can usually be felt from behind, but in some obese perons, this may prove difficult</p>
<b>Chest Examination</b>	<ol style="list-style-type: none"> <li>1. Inspection</li> <li>2. Palpation</li> <li>3. Percussion</li> <li>4. Auscultation</li> </ol>
<b>Pleural Reflection lines</b>	<ul style="list-style-type: none"> <li>-Reflect the direction of parietal pleura as it passes from one wall of pleural cavity to another</li> <li>-There are three pleural lines: sternal, costal and vertebral</li> <li>- The sternal pleural reflection is where the costal pleura is continuous with mediastinal pleura posterior to sternum</li> <li>- The costal pleural reflection is where costal pleura is continuous with diaphragmatic pleura near the costal margin</li> <li>- The vertebral reflection lies posteriorly along the lateral side of bodies of thoracic vertebra</li> </ul>
<b>Percussion</b>	<ul style="list-style-type: none"> <li>-Percussion of heart can be useful in estimating a patient's heart size or pericardial effusion</li> <li>- Percussion of chest is performed to establish whether the lungs are filled with air, fluid or solid material and to establish lung boundaries</li> </ul>
<b>Mediastinitis</b>	<ul style="list-style-type: none"> <li>-Inflammation of mediastinum</li> <li>- Deep infection of neck can spread readily to thorax producing mediastinitis</li> <li>- Penetrating wounds of chest involving esophagus may produce mediastinitis. In esophageal perforations, air escapes into connective tissue spaces and ascends beneath the fascia to the root of the neck, producing subcutaneous emphysema</li> </ul>
<b>Mediastinal tumor or cysts</b>	<ul style="list-style-type: none"> <li>-A tumor of the left lung can rapidly spread to involve the mediastinal lymph nodes, which on enlargement may compress the left recurrent laryngeal nerve, producing paralysis of left vocal fold.</li> <li>- An expanding cyst or tumor can partially occlude the superior vena cava, causing severe congestion of veins of upper part of body</li> </ul>
<b>Mediastinoscopy</b>	-A diagnostic procedure whereby specimens of tracheobronchial lymph nodes are obtained without opening the pleural cavity

	<ul style="list-style-type: none"> <li>-A small incision is made in the midline in the neck just above the suprasternal notch, and the superior mediastinum is explored down to the region of bifurcation of trachea</li> <li>-The procedure can be used to determine the diagnosis and degree of spread of carcinoma of bronchus</li> </ul>
<b>Pleural Effusion</b>	<ul style="list-style-type: none"> <li>-Accumulation of excess fluid in pleural cavity</li> <li>-Any condition that increases the production of fluid (e.g. inflammation, malignancy, congestive heart disease) or impairs the drainage the fluid (e.g. collapsed lung) result in pleural effusion</li> <li>-The presence of 300 ml of fluid in costodiaphragmatic recess in adult is sufficient to enable its clinical detection</li> <li>-The clinical signs include decreased lung expansion on side of effusion, with decreased breath sounds on percussion over the effusion</li> </ul>
<b>Pleurisy or pleuritis</b>	<ul style="list-style-type: none"> <li>-Inflammation of the pleura secondary to inflammation of lung (e.g. pneumonia)</li> <li>- The inflammation causes roughening of pleural surfaces which produce friction and can be heard with stethoscope as <b>pleural rub</b> on inspiration and expiration</li> <li>-Invasion of fibroblasts often result in deposition of collagen and formation of <b>pleural adhesions</b> that bind the visceral pleura to parietal pleura</li> </ul>
<b>Pneumothorax (collapsed lung)</b>	<ul style="list-style-type: none"> <li>-occurs when air enter the chest cavity (outside the lung) and creates pressure against the lung</li> <li>- In <b>spontaneous pneumothorax</b> Air may have entered from a diseased lung or a bleb may have ruptured</li> <li>-A collapsed lung requires immediate medical care</li> <li>- <b>Artificial pneumothorax</b> was caused as an old treatment of tuberculosis in which air was purposely injected into the pleural cavity to collapse and rest the lung</li> <li>- <b>open pneumothorax</b> result from an open chest wound or other physical defect</li> <li>- A <b>tension pneumothorax</b> is a life-threatening condition that develops when air is trapped in pleural cavity under positive pressure, displacing mediastinal structures and compromising cardiopulmonary function.</li> <li>- Air in the pleural cavity associated with serous fluid is known as <b>hydropneumothorax</b>, associated with pus as <b>pyopneumothorax</b>, and associated with blood as <b>hemopneumothorax</b></li> </ul>
<b>Empyema</b>	A collection of pus in the pleural cavity is called empyema
<b>Tracheitis or bronchitis</b>	A tracheitis or bronchitis gives rise to a raw, burning sensation felt deep to the sternum instead of actual pain
<b>Foreign bodies aspiration</b>	<p>Right principal bronchus is the wider, more vertical, and more direct continuation of the trachea. So foreign bodies enter the right instead of the left bronchus. From there, they usually pass into the middle or inferior lobar bronchi.</p> <p>Large aspirated objects commonly lodge in the right main bronchus, whereas small objects tend to stop in the right inferior lobar bronchus.</p>

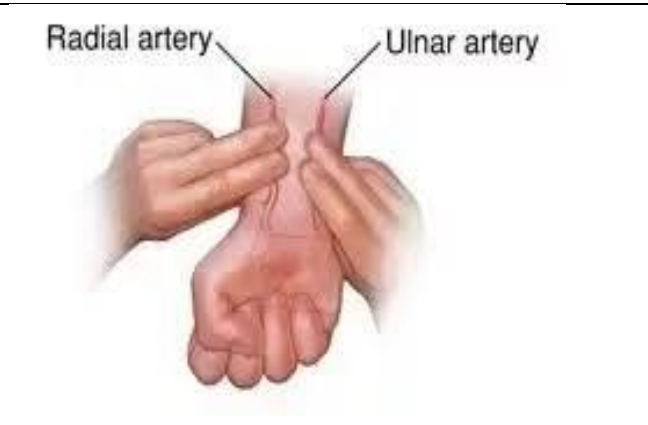
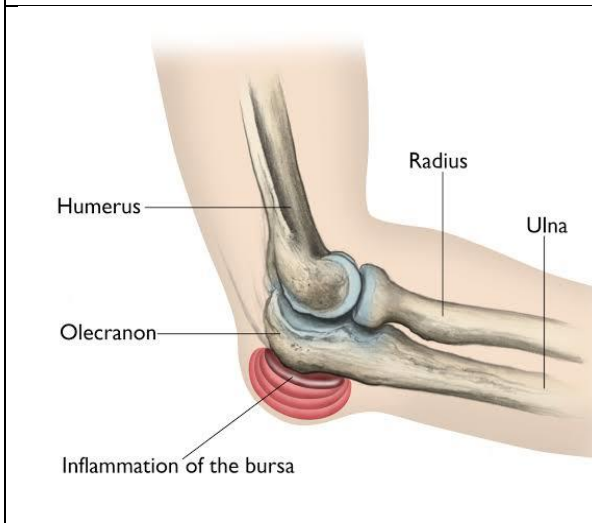
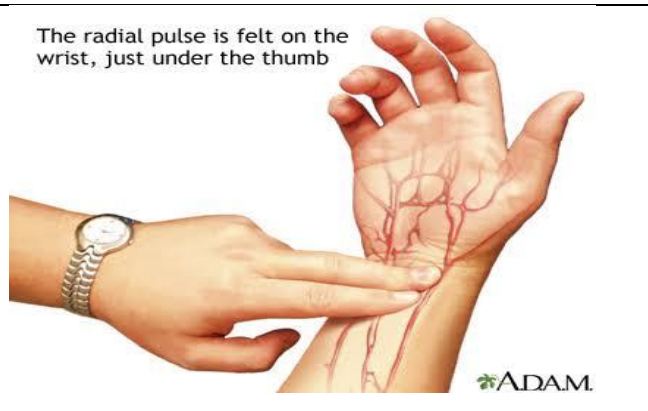
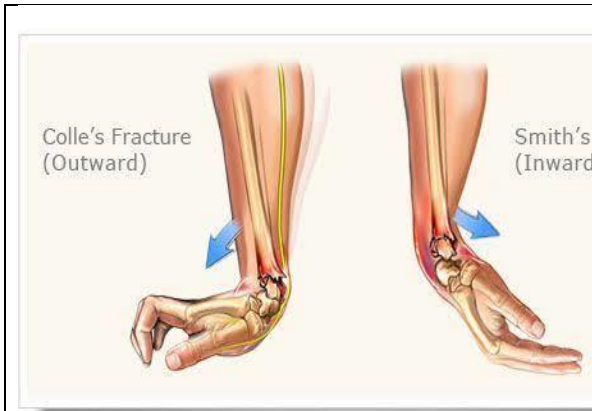
<b>Physical examination of lungs</b>	Upper lobes of the lungs are most easily examined from front of chest and lower lobes from the back. Areas of all lobes examined in axilla
<b>Subcutaneous emphysema</b>	A condition in which air becomes trapped under the skin
<b>Pain and lung diseases</b>	<p>-Lung tissue and visceral pleura are devoid of pain-sensitive nerve endings. E.g. in tuberculosis or pneumonia, pain may never be experienced</p> <p>- If disease reaches the parietal pleura, pain becomes a prominent feature</p> <p>- Lobar pneumonia with pleurisy produces a severe tearing pain, accentuated by deep inspiration or coughing.</p> <p>Because the lower part of costal parietal pleura receives its sensory innervation from the lower five intercostal nerves which also innervate the skin of anterior abdominal wall, pleurisy in this area commonly produces pain that is referred to abdomen resulting in mistaken diagnosis of acute abdominal lesion</p> <p>Pleurisy of central part of diaphragmatic pleura, which receives sensory innervation from phrenic nerve can lead to referred pain over the shoulder because the supraclavicular nerves supply skin of this region</p>
<b>Segmental pulmonary resection</b>	<p>-refers to removing a section (bronchopulmonary segment) of lobe of lung</p> <p>- A localized chronic lesion such as that of tuberculosis or a benign neoplasm may require surgical removal</p>
<b>Bronchial asthma</b>	<p>Bronchial asthma is a medical condition which causes the airway path of the lungs to swell and narrow.</p> <p>In severe asthma, the spasm of smooth muscle in the wall of bronchioles take place due to which diameter of bronchioles is reduced during expiration causing the asthmatic patient to experience great difficulty in expiring, although inspiration is accomplished normally. This leads to barrel chest.</p>
<b>Barrel chest</b>	<p>Barrel chest is a condition in which the chest appears to be partially inflated all the time, with the rib cage broadened as in the middle of a deep breath.</p> <p>The causes of barrel chest include emphysema, osteoarthritis, cystic fibrosis, severe asthma</p>
<b>Loss of lung elasticity</b>	Emphysema and pulmonary fibrosis destroy the elasticity of lungs and the lungs are unable to recoil adequately, causing incomplete expiration. The respiratory muscles in these patients have to assist in expiration, which no longer is a passive phenomenon.
<b>Loss of lung distensibility</b>	Diseases such as silicosis, asbestosis, cancer and pneumonia interfere with process of expanding the lung in inspiration. A decrease in the compliance of lungs and chest wall occurs, and a greater effort has to be undertaken by the inspiratory muscles to inflate the lungs
<b>Postural drainage</b>	<p>Postural drainage is the positioning of a patient with an involved lung segment such that gravity has maximum effect of facilitating the drainage of bronchopulmonary secretions from the tracheobronchial tree.</p> <p>Excessive accumulation of bronchial secretions in a lobe or segment of a lung can seriously interfere with normal flow of air into alveoli. Postural drainage uses gravity to help move mucus from lungs up to the throat.</p>
<b>Pericarditis</b>	Inflammation of pericardium
<b>Cardiac tamponade</b>	-Pericarditis can sometimes worsen to cardiac tamponade



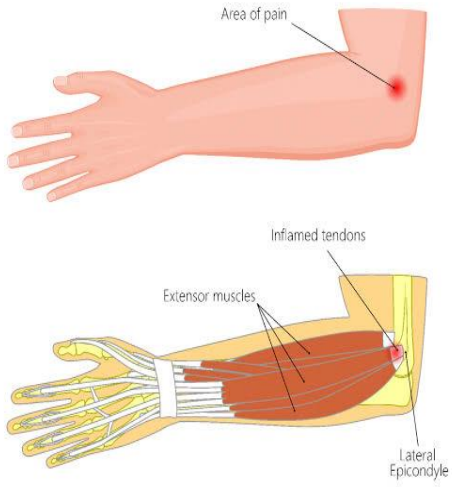
	<ul style="list-style-type: none"> <li>- cardiac tamponade is a grave condition that happens after sudden and/or excessive accumulation of fluid in pericardial space</li> <li>- Cardiac tamponade can also occur secondary to stab or gunshot wounds when chambers of the heart have been penetrated. Blood escapes into pericardial cavity and can restrict the filling of heart</li> </ul>
<b>Constrictive pericarditis</b>	<ul style="list-style-type: none"> <li>-occurs when fibrous pericardium becomes too rigid due to inflammation</li> <li>-results in heightened resistance to movements of heart and blood flow</li> </ul>
<b>Pericardiocentesis</b>	<ul style="list-style-type: none"> <li>-A procedure done to remove fluid that built up in the pericardium</li> <li>- It's done using a small needle and a small catheter to drain excess fluid</li> <li>- The needle can be introduced to the left of the xiphoid process in an upward and backward direction at 45° to the skin. At this site, the pleura and lung are not damaged because of the presence of cardiac notch in this area</li> </ul>
<b>Cardiac pain</b>	<ul style="list-style-type: none"> <li>-Oxygen deficiency and accumulation of metabolites, which stimulate sensory nerve endings in myocardium, are assumed to cause pain originating in the heart as a result of acute myocardial ischemia</li> <li>-The nature of the pain varies considerably, from severe crushing pain to nothing more than a mild discomfort</li> <li>- the pain is not felt in the heart but is referred to the skin area supplied by corresponding spinal nerves</li> <li>Pain referred to medial side of upper part of arm due to communication of intercostobrachial nerve with medial cutaneous nerve of arm.</li> <li>Pain sometimes felt in jaw and neck</li> <li>MI involving inferior wall or diaphragmatic surface of heart often gives rise to discomfort in epigastrium (Painful acute esophagitis can sometimes mimic the pain of MI)</li> </ul>
<b>Arrhythmia</b>	<ul style="list-style-type: none"> <li>-It is a problem with the rate or rhythm of heart</li> <li>-Tachycardia is rate faster than normal</li> <li>-Bradycardia is rate slower than normal</li> </ul>
<b>Commotio cordis</b>	<ul style="list-style-type: none"> <li>- A phenomenon in which a sudden blunt impact to the chest wall over the heart may result in ventricular fibrillation and sudden death</li> <li>- Ventricular fibrillation is most likely to occur if the blow occurs during the upstroke of T wave of electrical activity of cardiac muscle</li> </ul>
<b>Myocardial infarction</b>	<p>A sudden block of one of the large branch of coronary artery will usually lead to necrosis of cardiac muscle (myocardial infarction) in that vascular area and often the patient dies</p>
<b>Angina pectoris</b>	<p>Angina pectoris is chest pain or discomfort due to coronary heart disease</p>
<b>Valvular heart disease</b>	<ul style="list-style-type: none"> <li>-Inflammation of a valve can cause the edges of the valve cusps to stick together. Later, fibrous thickening occurs followed by loss of flexibility and shrinkage.</li> <li>- Narrowing (stenosis) and regurgitation result, and the heart ceases to serve as an efficient pump</li> <li>- In rheumatic disease of mitral valve, not only do the cusps undergo fibrosis and shrink but the chordae tendinae shorten as well, preventing closure of cusps during ventricular systole</li> </ul>
<b>Traumatic asphyxia</b>	<ul style="list-style-type: none"> <li>-A type of mechanical asphyxia where respiration is prevented by external pressure on the body, at the same time inhibiting respiratory movements and compromising venous return from head.</li> </ul>

	<ul style="list-style-type: none"><li>-Conditions like compression of chest or abdomen under a heavy weight and wedging of the body within narrow space or large crowds have been reported</li></ul>
<b>Coarctation of aorta</b>	<ul style="list-style-type: none"><li>-A birth defect in which part of the aorta is narrower than usual</li><li>-The cardinal signs of aortic coarctation is absent or diminished pulses in the femoral arteries of both lower limbs.</li></ul>
<b>Aortic aneurysm</b>	<p>Aortic aneurysm is a balloon-like bulge in the aorta</p>
<b>Patent ductus arteriosus</b>	<ul style="list-style-type: none"><li>-An abnormal connection between aorta and pulmonary artery in the heart</li><li>- A persistent patent ductus arteriosus results in high-pressure aortic blood passing into pulmonary artery, producing pulmonary hypertension and hypertrophy of the right ventricle.</li><li>-A patent ductus arteriosus is life-threatening and should be ligated and divided surgically</li></ul>

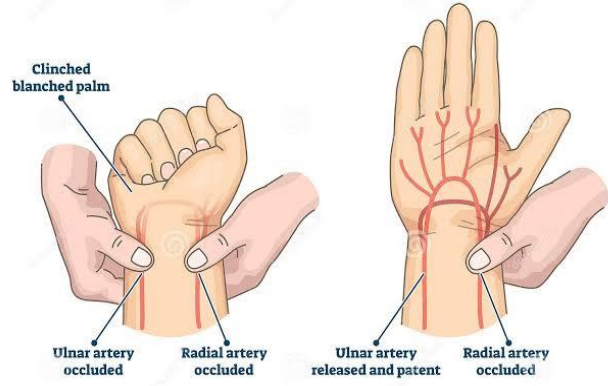
# VISUAL CLINICALS DEMONSTRATION OF UPPER LIMB



**TENNIS ELBOW  
(LATERAL EPICONDYLITIS)**



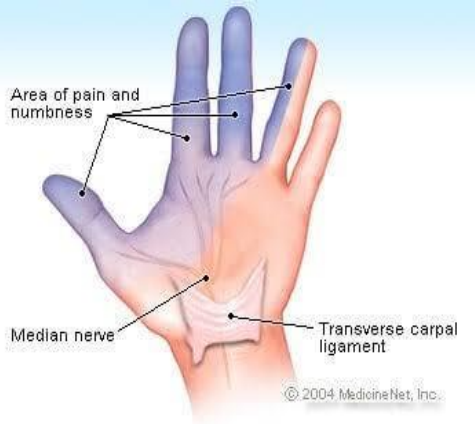
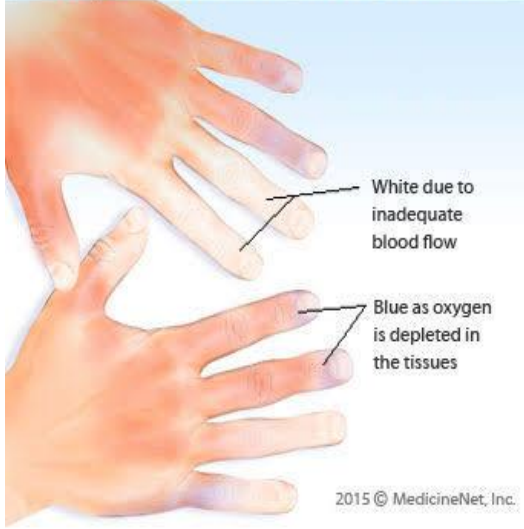
**ALLENS TEST**



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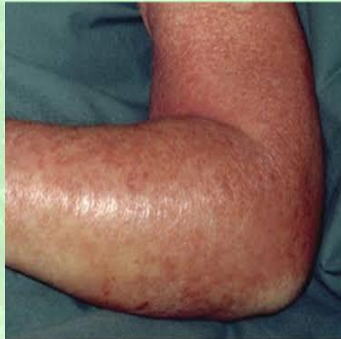
**Raynaud's Phenomenom**



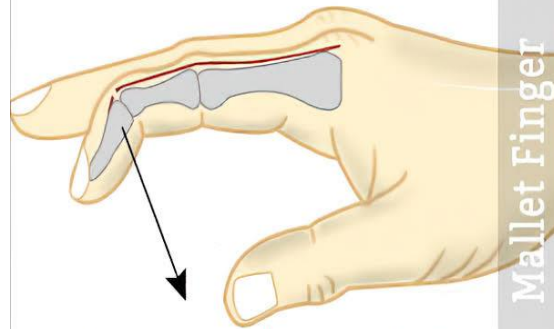
**Carpal Tunnel Syndrome**

### Spontaneous Thrombosis of the Axillary Vein

Occasionally occurs after excessive and unaccustomed movements of the arm at the shoulder joint.



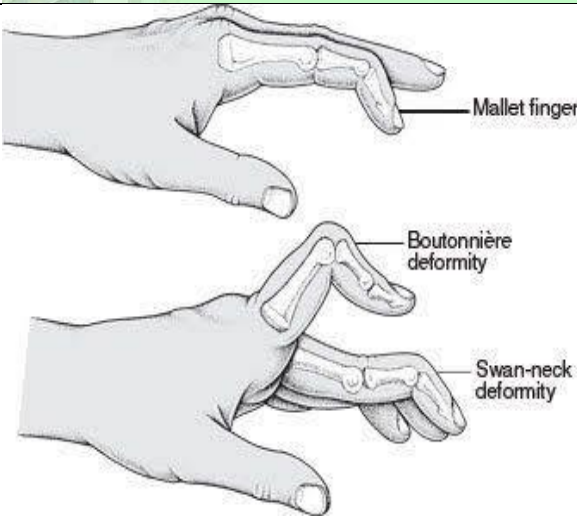
MEDICAL-ON-LINE/ALAMY



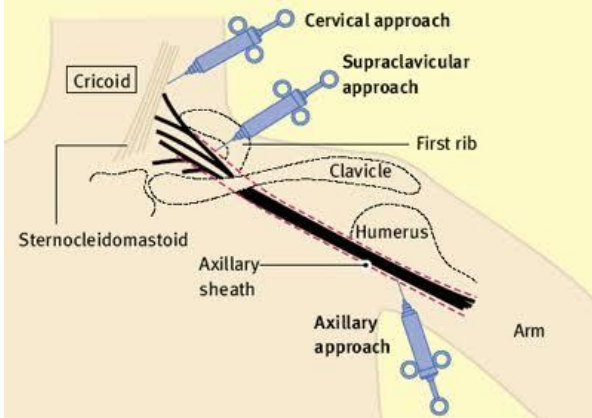
Mallet Finger

Mallet Finger / Baseball Finger

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### Surface anatomy of the brachial plexus emphasizing the approaches for brachial plexus block

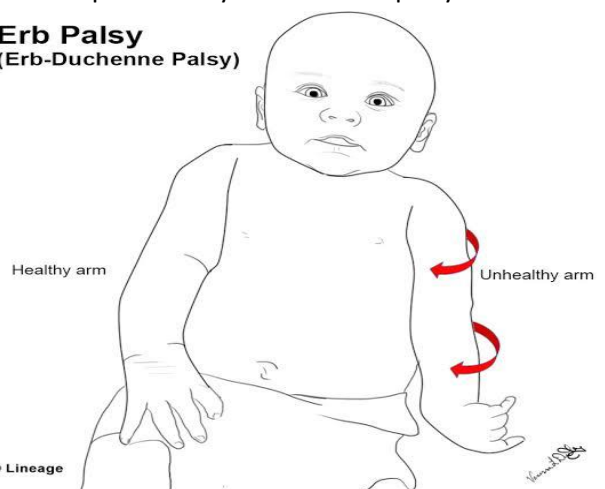


### Peripheral damage to the Brachial Plexus



Walters tip deformity seen in Erb's palsy

### Erb Palsy (Erb-Duchenne Palsy)



© Lineage

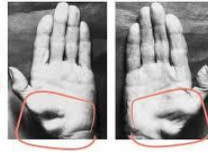


## KLUMPKE'S PALSY

- Named after augusta déjerine-klumpke, it is a variety of partial palsy of the lower roots of the brachial plexus.
- Results from a brachial plexus injury in which C8 and T1 nerves are injured.
- Affects, principally, the intrinsic muscles of the hand and the flexors of the wrist and fingers.
- The classic presentation of klumpke's palsy is the "claw hand" where the forearm is supinated and the wrist and fingers are hyperextended with flexion at interphalangeal and metatarso phalangeal joints.



### Median Neuropathy



THUMB PAD ATROPHY,  
SO-CALLED  
"APE-HAND"

### Ulnar Neuropathy



POPE'S BLESSING,  
SO-CALLED  
"BENEDICTION SIGN"  
OR  
"ULNAR CLAW"

### Radial Neuropathy



EXTENSOR MUSCLE  
WEAKNESS CAUSES  
WRIST DROP

## Froment's Sign

PATIENT



Flexion of the  
Thumb

Ulnar Nerve  
Injury

EXAMINER'S  
HAND

When pinching a piece of paper between the thumb and index finger, the thumb IP joint will flex if the adductor pollicis muscle is weak.

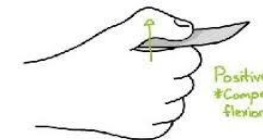
## Froment's sign

To perform the test, a patient is asked to hold an object, usually a flat object such as a piece of paper, between their thumb and index finger (pinch grip). The examiner then attempts to pull the object out of the subject's hands.<sup>[2]</sup>

Adductor Pollicis



sketchymedicine  
Froment's Test



Froment's sign : hyperflexion of IP jt of thumb while attempting a lateral pinch (indicates paralysis of adductor pollicis, 1st D1, with replacement of pinch function by FPL)

## TYPES OF CLAW HAND

### partial:

- Involving only ulnar 2 digits as in isolated ulnar nerve palsy



### Complete

- Involving all digits and resulting form combined ulnar and median nerve palsy



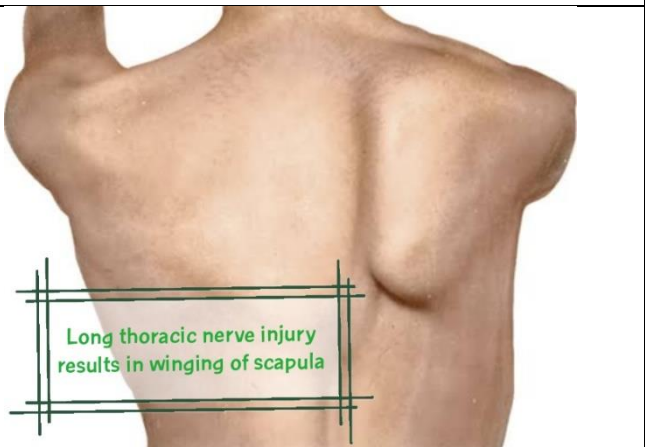
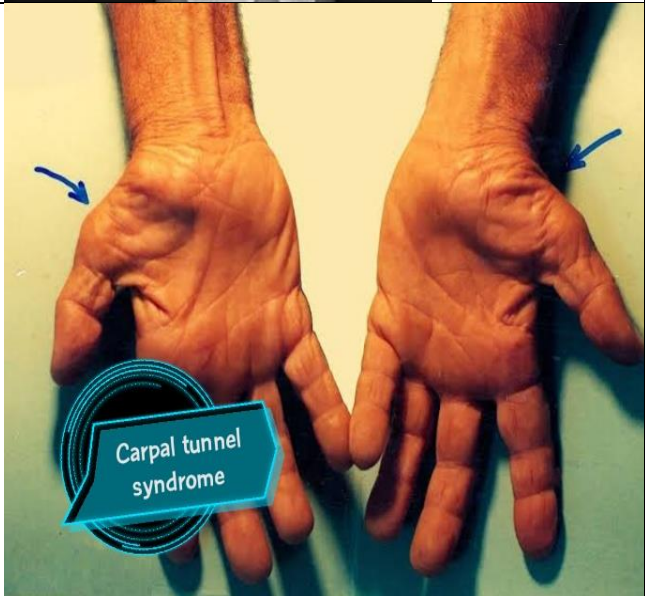
## What is Wrist Drop?

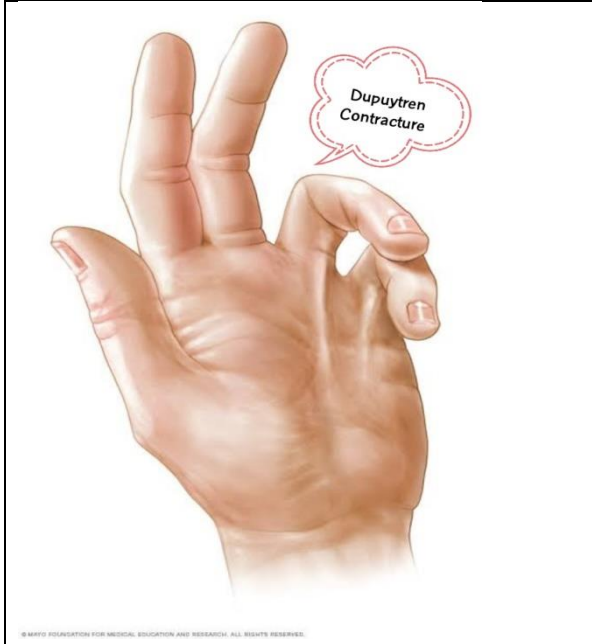
Wrist Drop is a pathological condition in which there is an injury to the radial nerve resulting in impaired nerve function causing radial nerve palsy.

For More Information,  
Visit: [www.epainassist.com](http://www.epainassist.com)



ePainAssist.com





## MAMMOGRAPHY

**S.com**  
racy

Normal mammogram	Benign cyst (not cancer)
Cancer	Calcium

A mammography exam, called a mammogram, aids in the early detection and diagnosis of breast diseases in women and men.

(A)

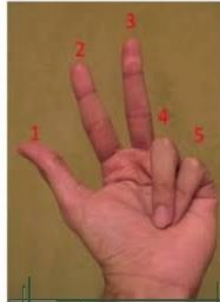
(B) **Volkman's Ischemic Contracture**

(C)





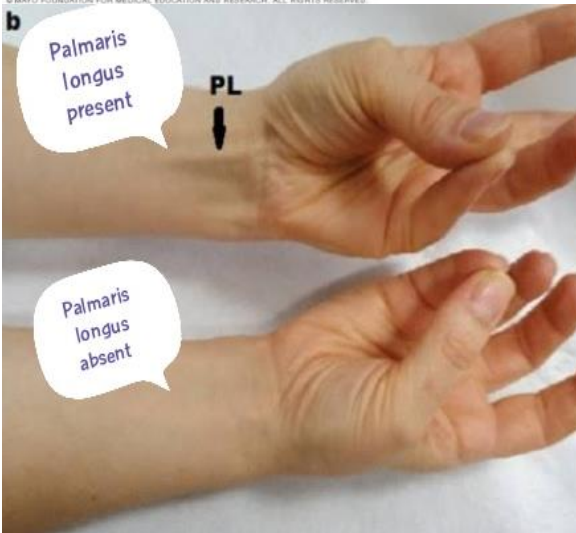
Typical Characteristic of Median nerve Injury is **Hand of Benediction**

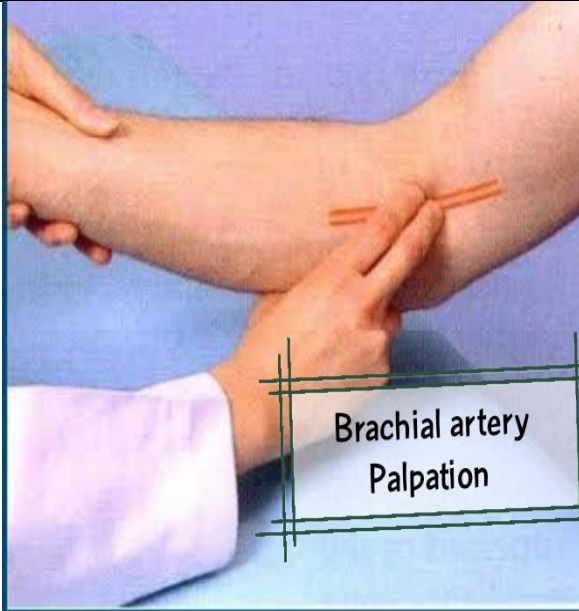


Median nerve palsy

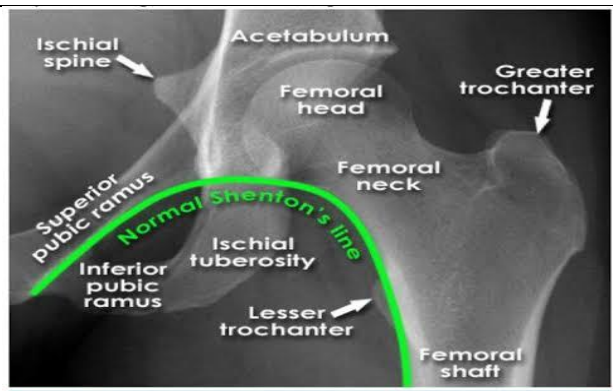
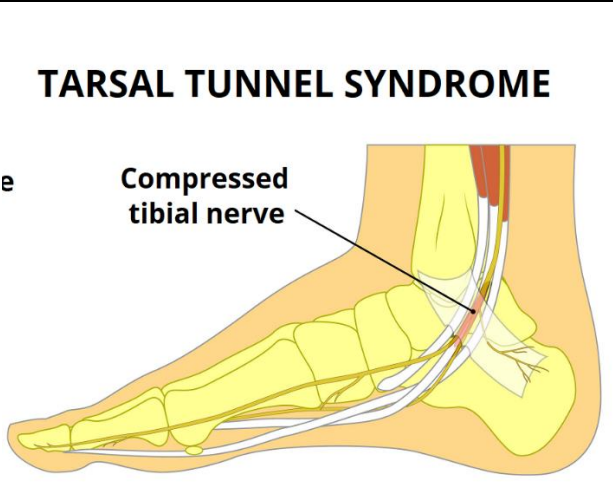
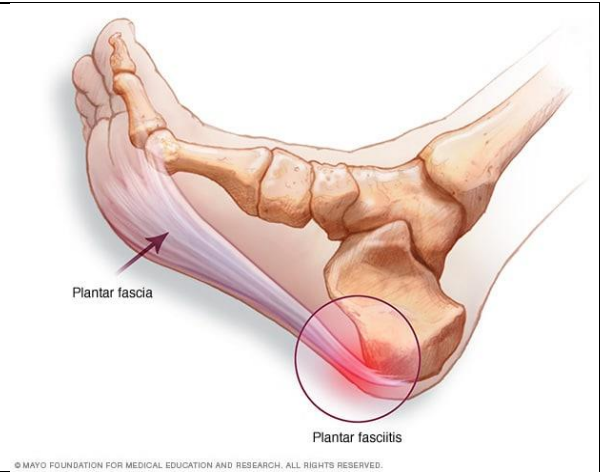
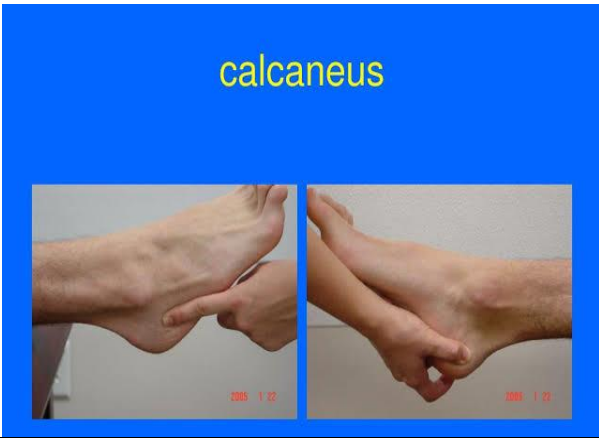


Normal



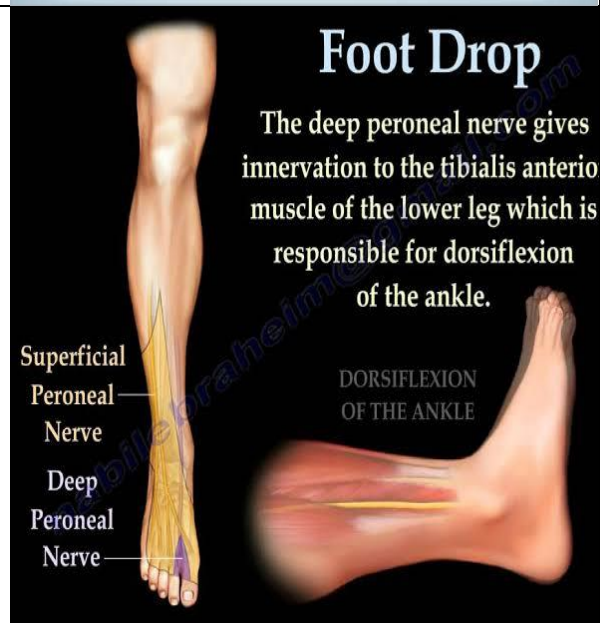


# VISUAL DEMONSTRATION OF LOWER LIMB CLINICALS

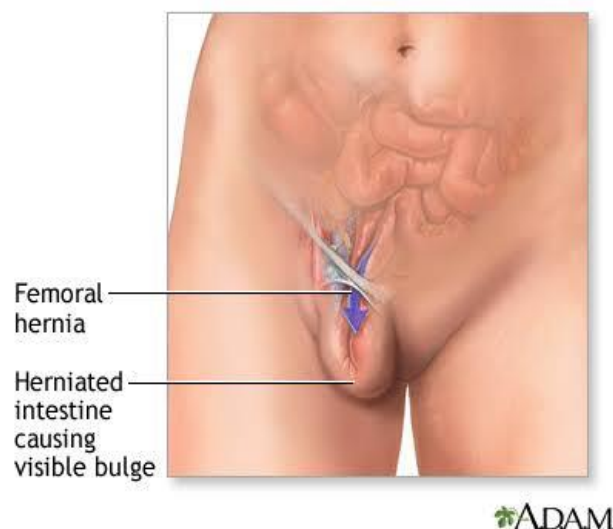
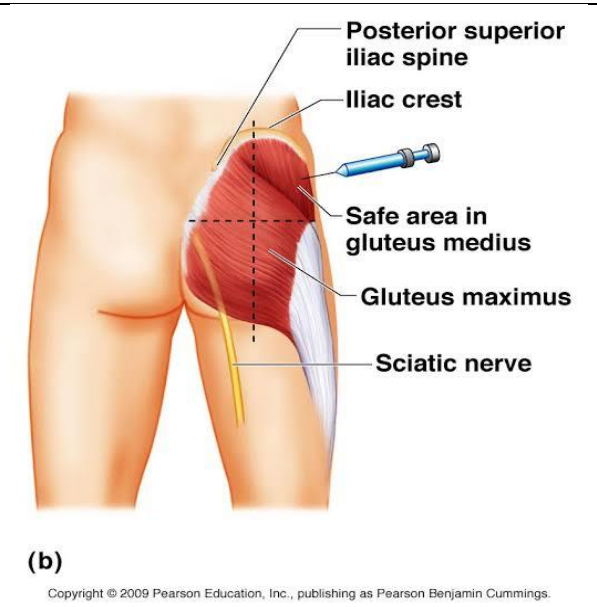
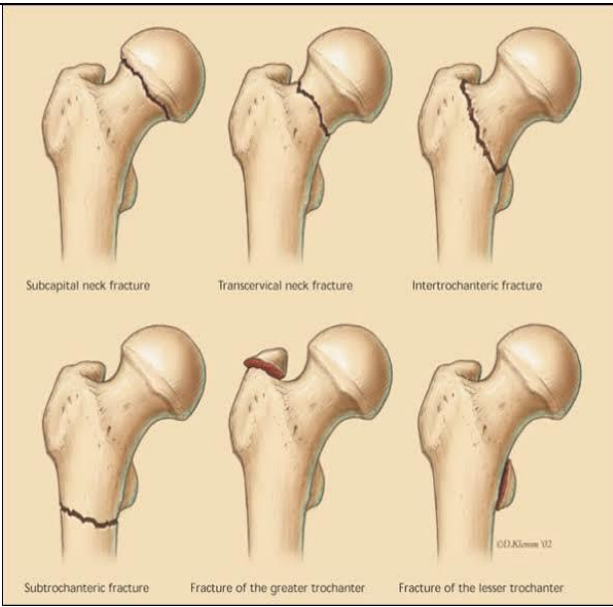
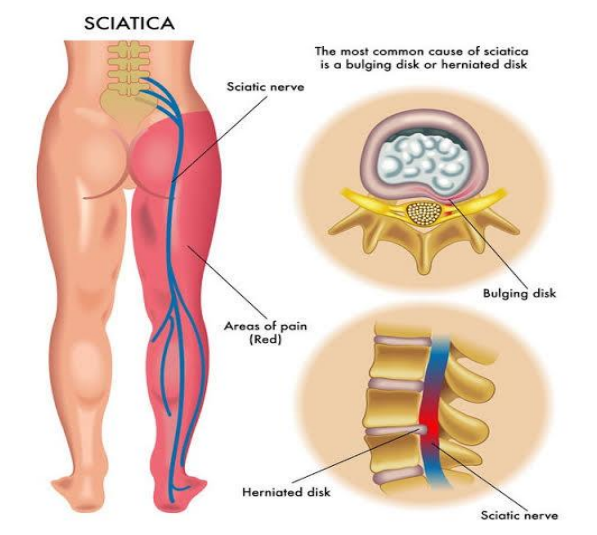
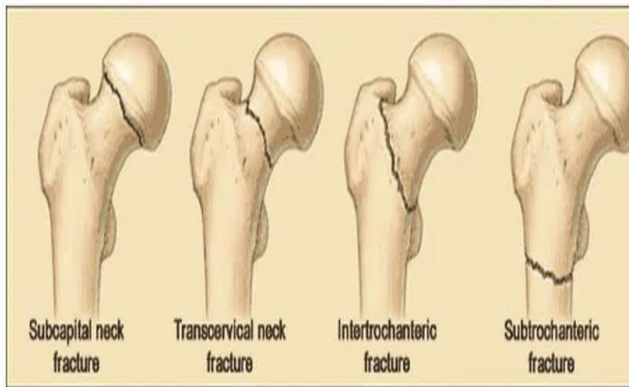


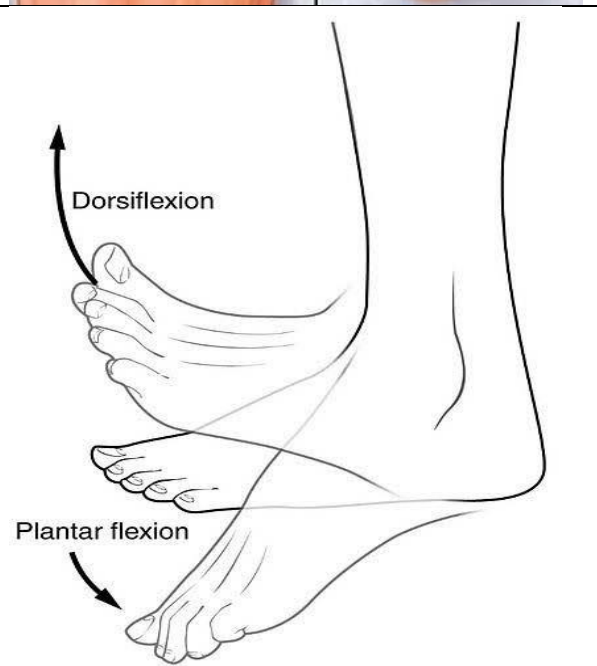
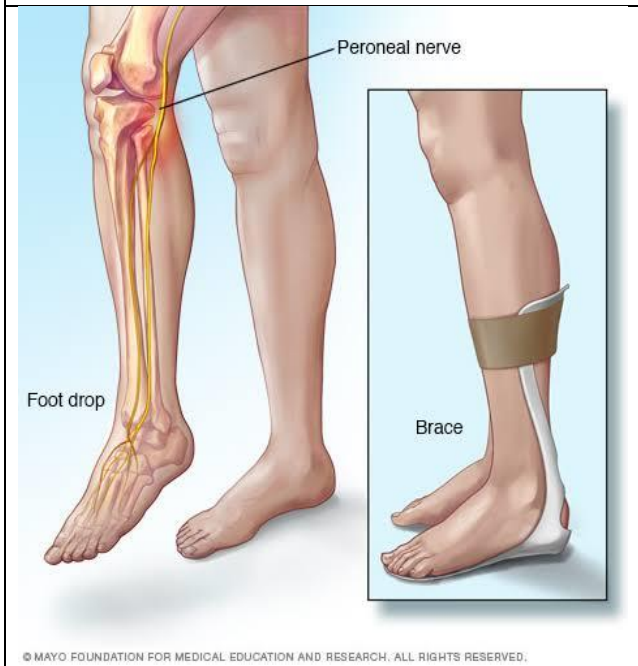
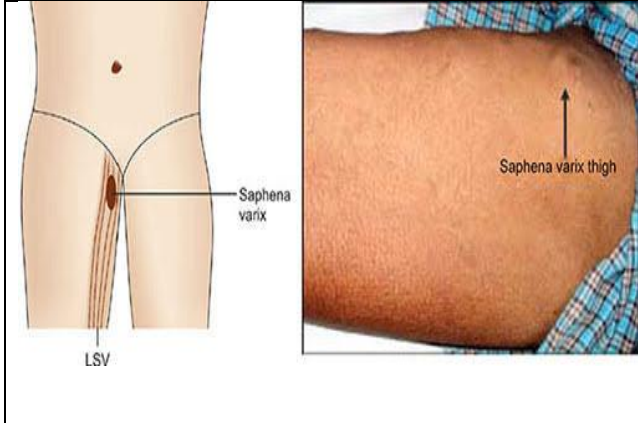
**Hip X-ray anatomy - Normal AP**

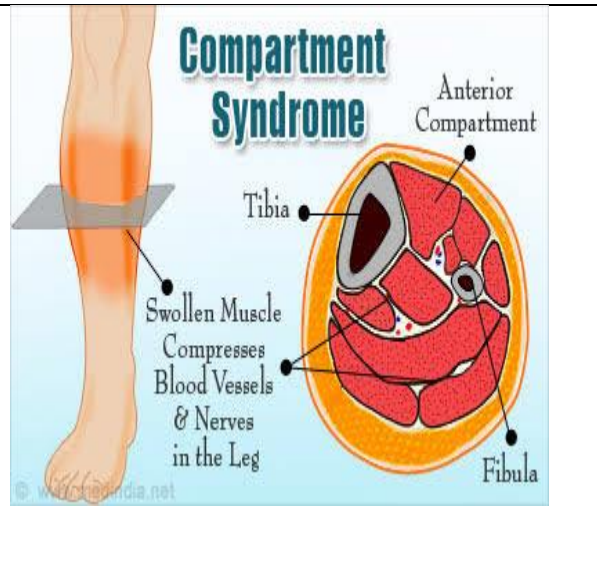
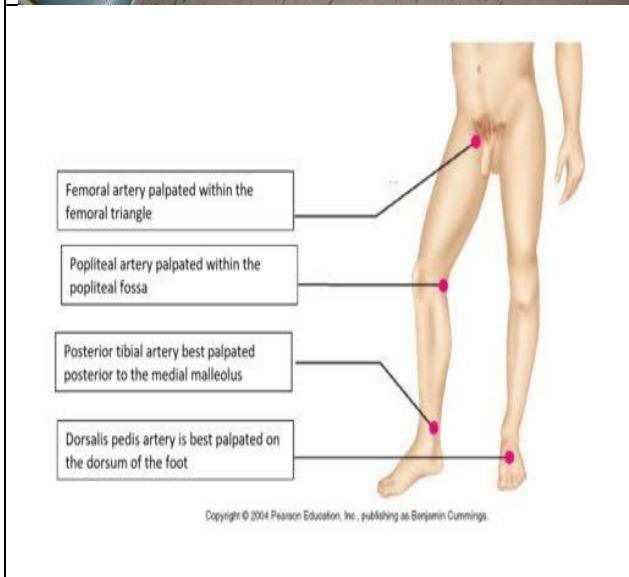
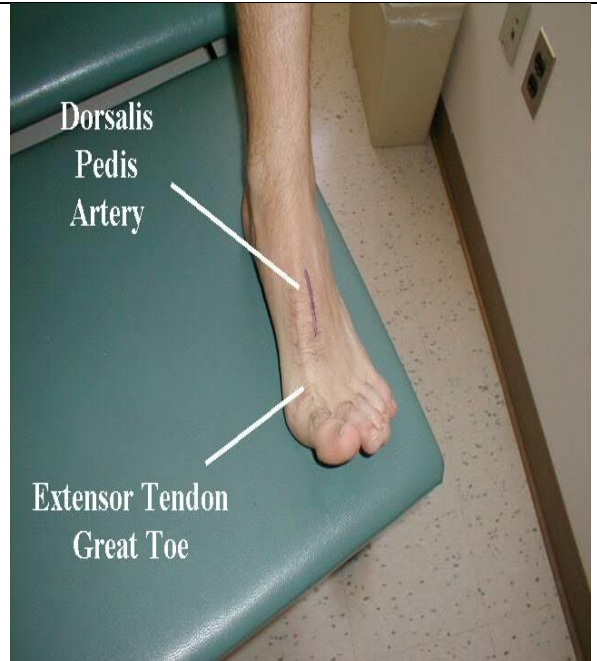
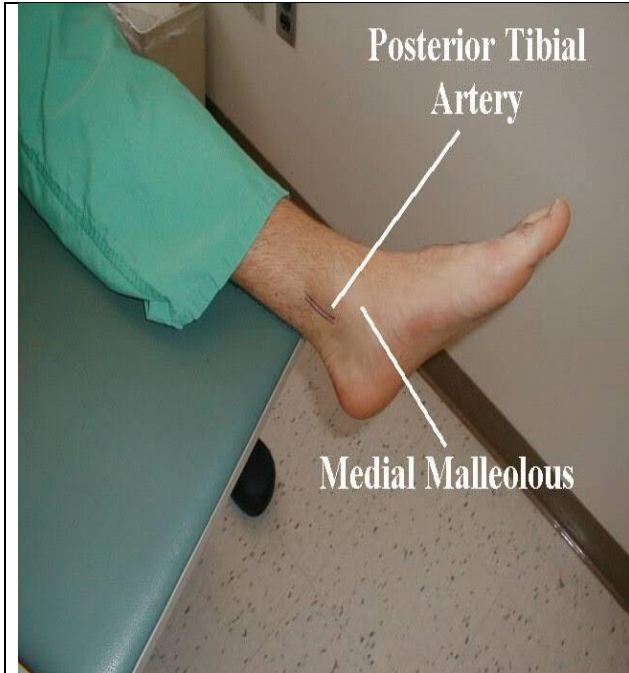
- ◆ Shenton's line is formed by the medial edge of the femoral neck and the inferior edge of the superior pubic ramus
- ◆ Loss of contour of Shenton's line is a sign of a fractured neck of femur
- ◆ **IMPORTANT NOTE:** Fractures of the femoral neck do not always cause loss of Shenton's line



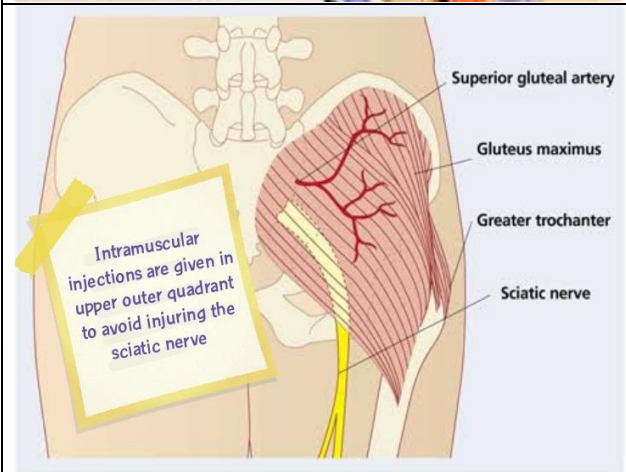
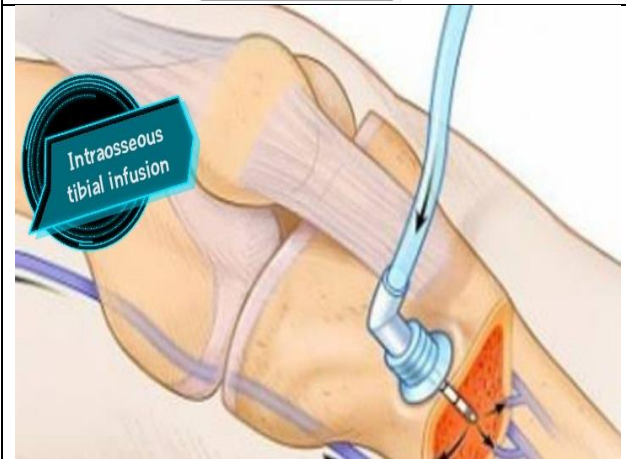
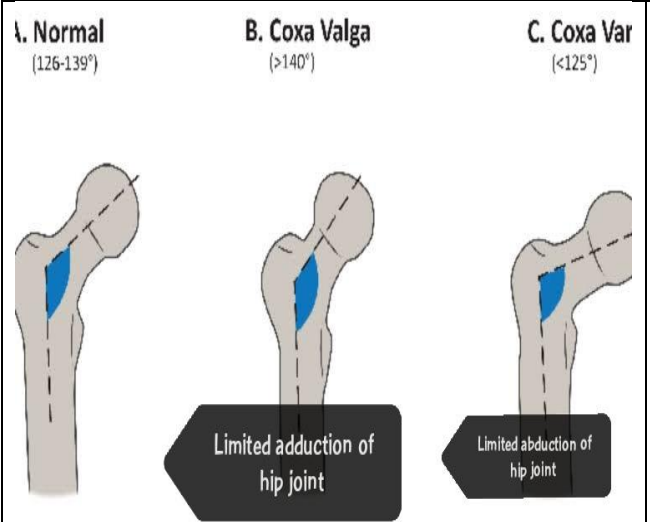








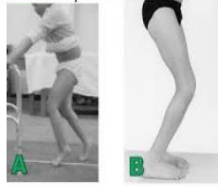




## Diagnosis

## Cerebral Palsy

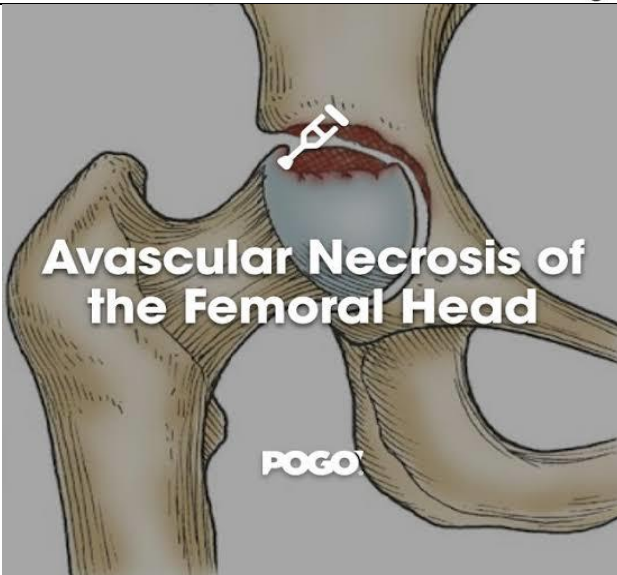
- A. Toe-walking (jump knee) gait: due to tightness in the hamstring muscles, hip adductors and gastrocnemius muscles
- B. crouch knee gait: due to long lasting of the knee extensor muscles mainly rectus femoris in stance phase. This also causes pelvis to bend forward and causes a crouch in body.
- C. Stiff knee gait: due to stiffness in the posterior capsule of knee in the flexed position
- D. Recurvatum knee gait: due to long lasting of the knee flexor muscles mainly biceps femoris in stance phase.



CP



Hallux valgus deformity



## Avascular Necrosis of the Femoral Head

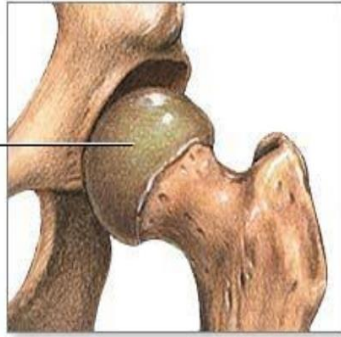
POGO



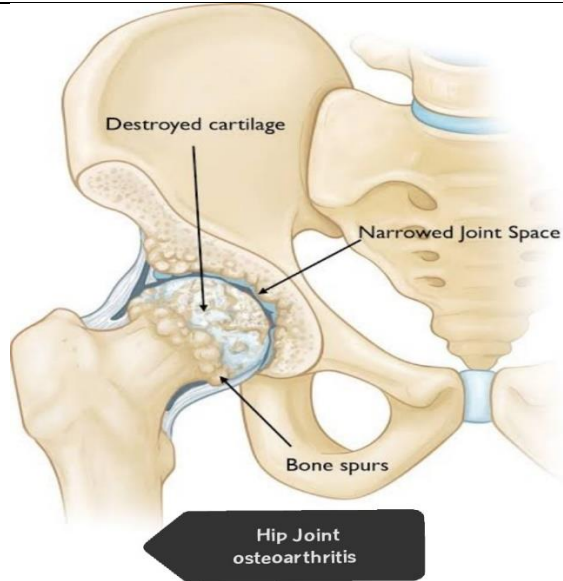
Pes Planus



Dislocated hip



**Congenital hip dislocation**



Normal



**Trendelenburg Sign**  
Drop of pelvis when lifting leg opposite to weak gluteus medius

Stanford Medicine 25

### Foot Type

**Pes Cavus (High Arch)**



**Normal Arch**

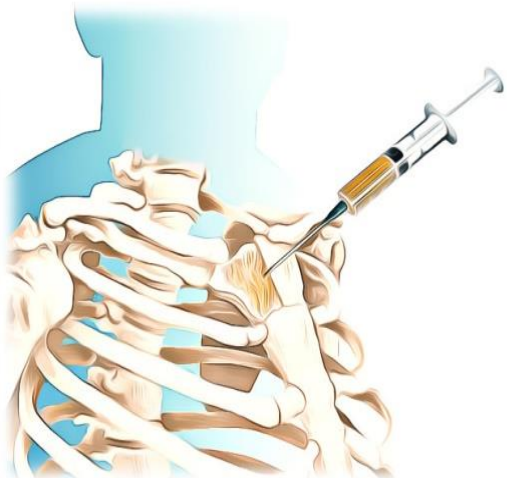


**Pes Planus (Flat foot)**

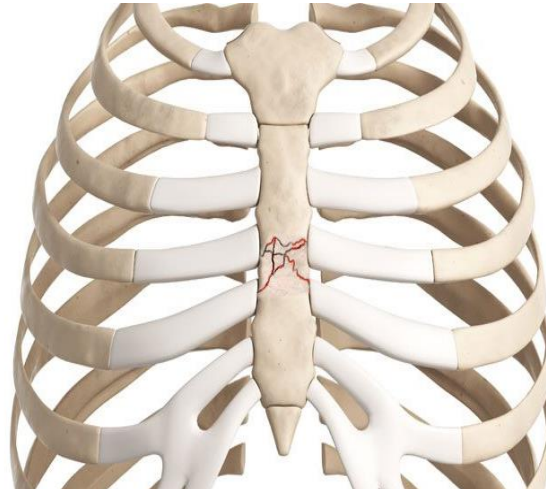


# THORAX CLINICALS VISUAL DEMONSTRATION

Sternal puncture



Sternum fracture



RIB CONTUSION



Bruised Ribs or Sportsmens Chest Pain

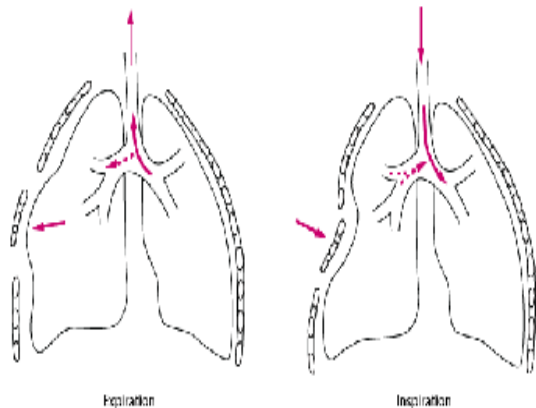
ePainAssist.

RIB FRACTURES



Broken Rib (Rib fracture)

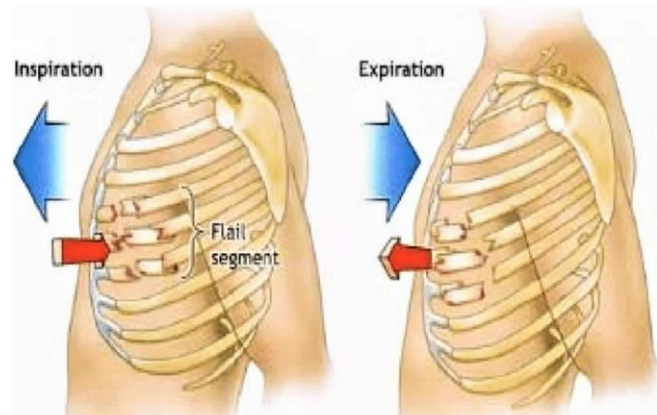
FLAIL CHEST



Expiration

Inspiration

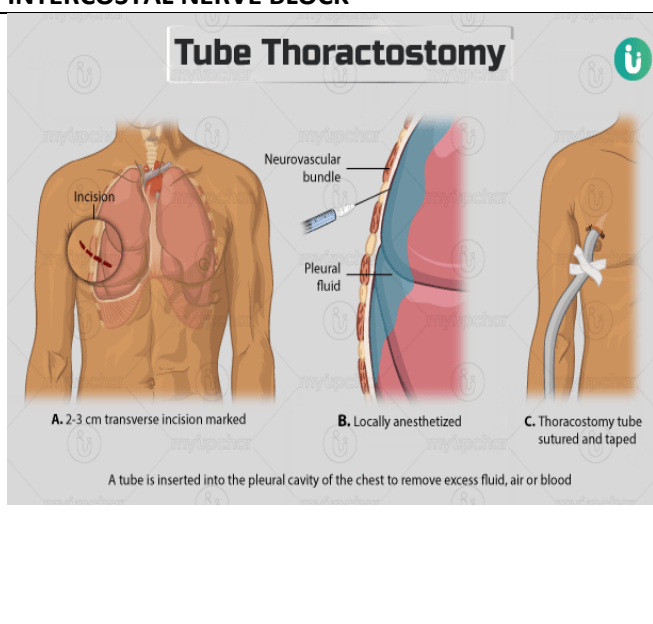
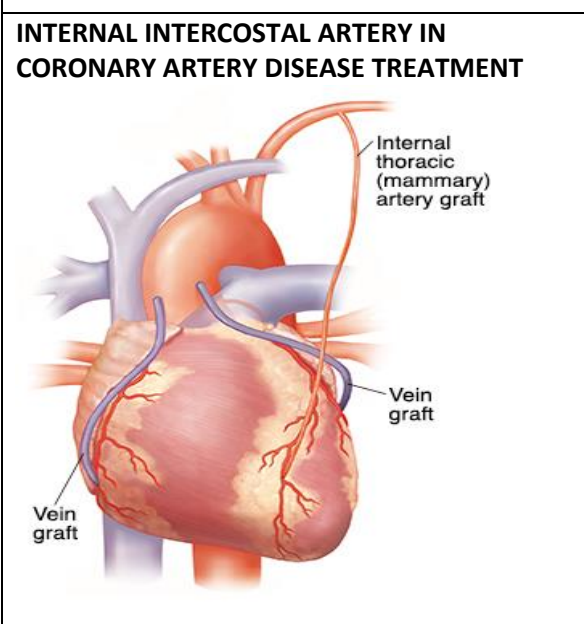
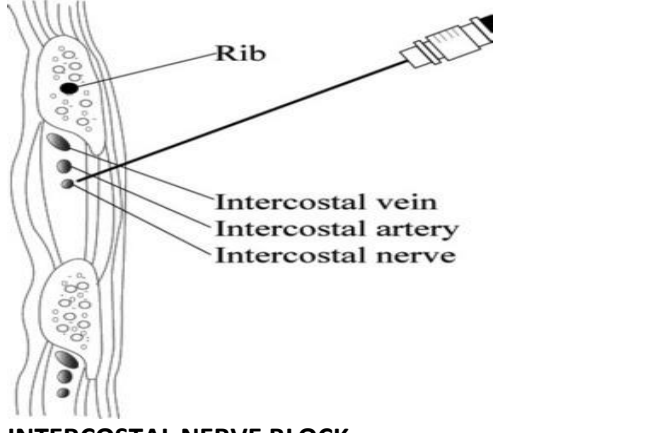
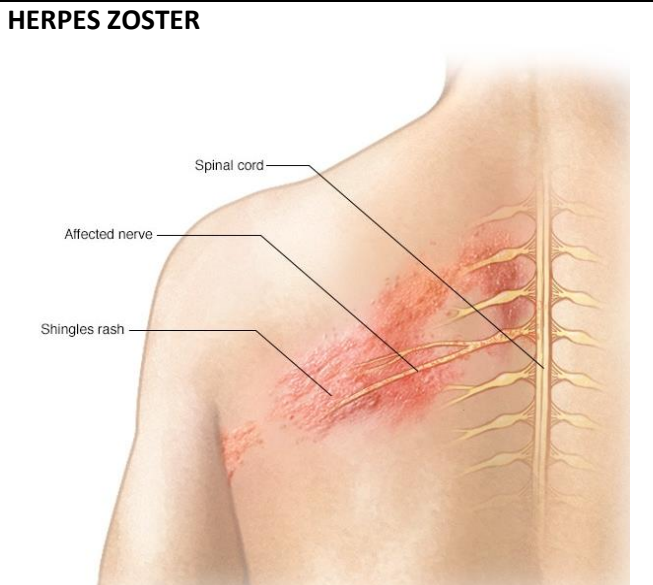
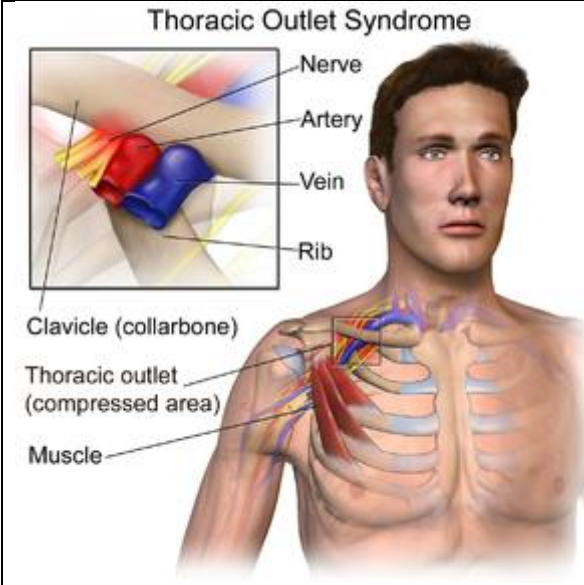
FLAIL CHEST



Inspiration

Expiration

Flail segment

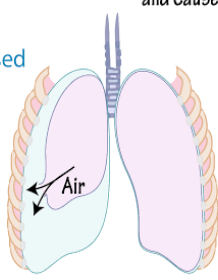




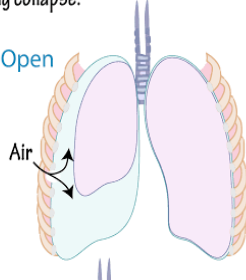
### Pneumothorax

Air enters the pleural space, Disrupts negative pressure, and Causes lung collapse.

Closed

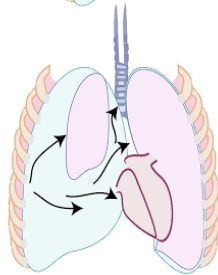


Open

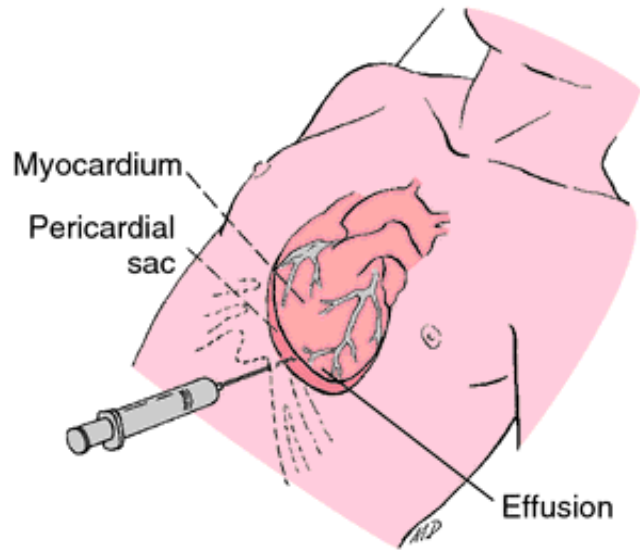


Tension

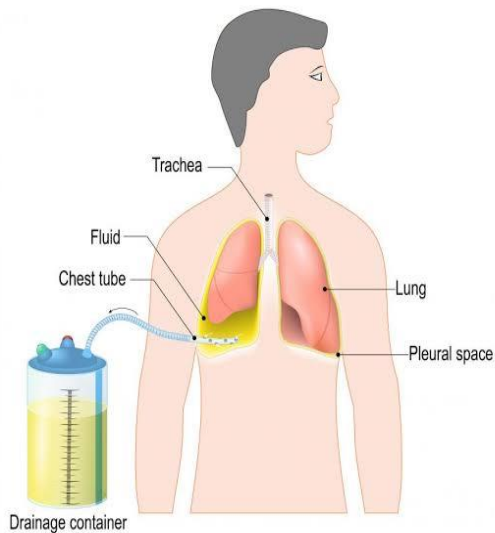
Air enters the pleural space, but cannot exit; Accumulated air compresses the lungs and shifts the mediastinum. Elevated intrathoracic pressure lowers venous return, and, consequently, cardiac output, Shock.



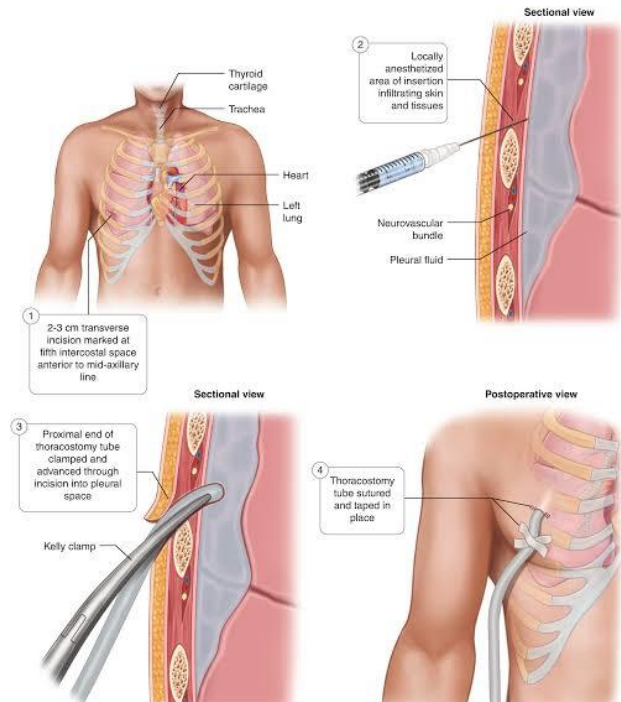
### PERICARDIOCENTESIS



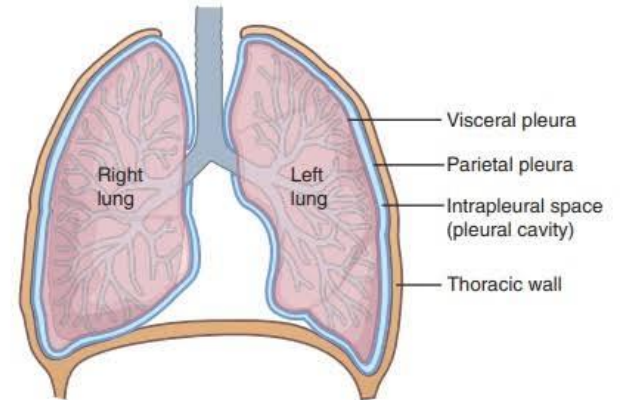
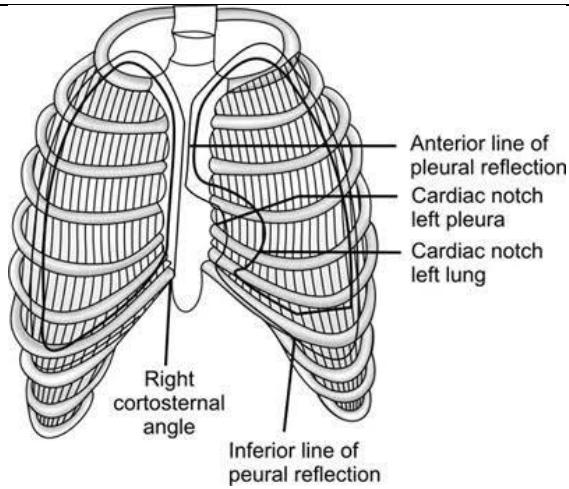
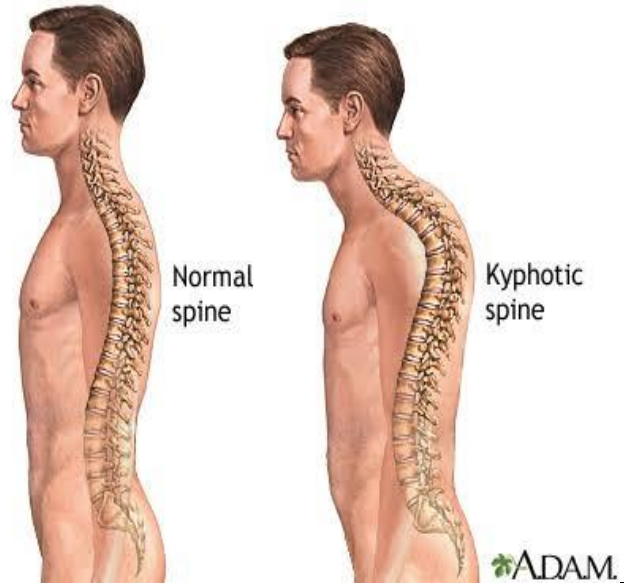
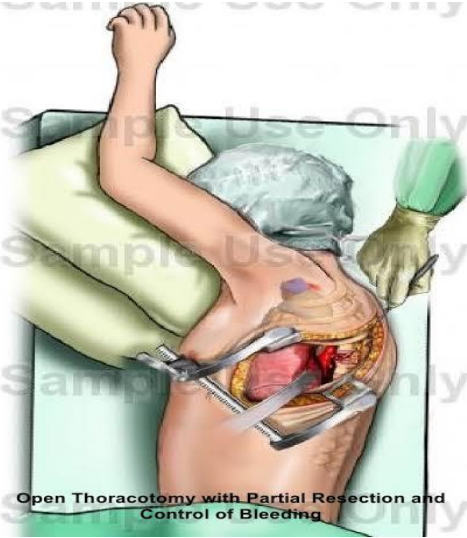
### THORACOSTOMY



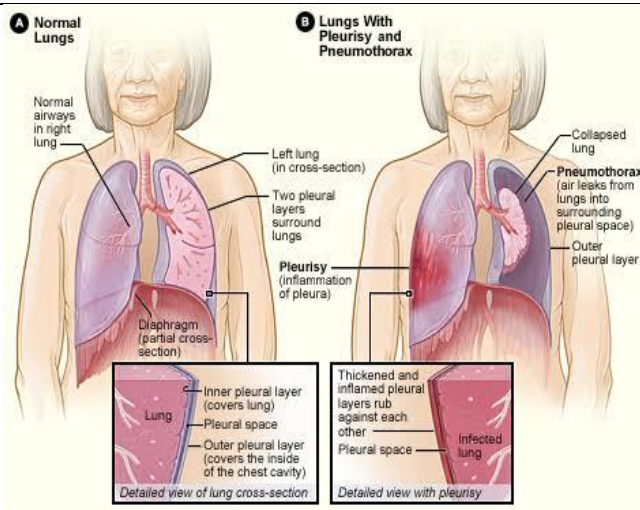
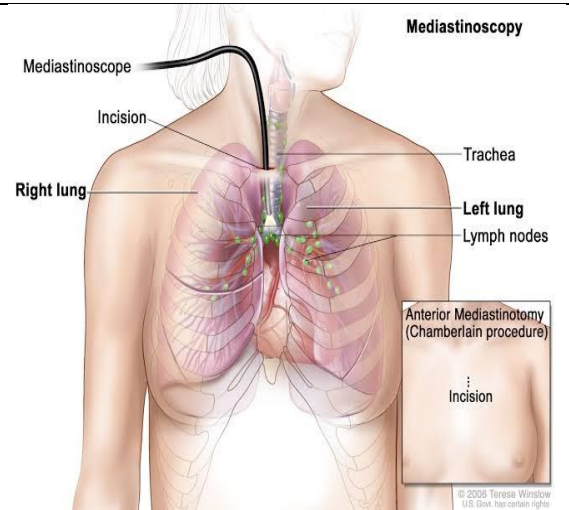
### THORACOSTOMY



**OPEN THORACOTOMY**

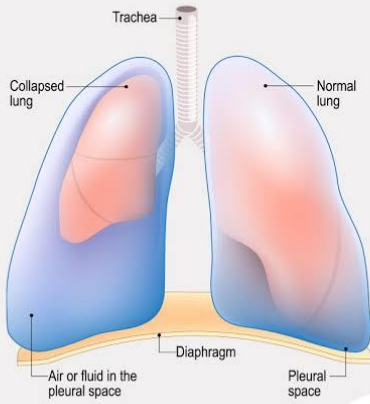


**FIGURE 21-7** The lungs reside in the pleural cavities, subdivisions of the thoracic cavity. They are lined with a serous membrane called the pleura. The intrapleural space is located between the visceral and parietal pleura.



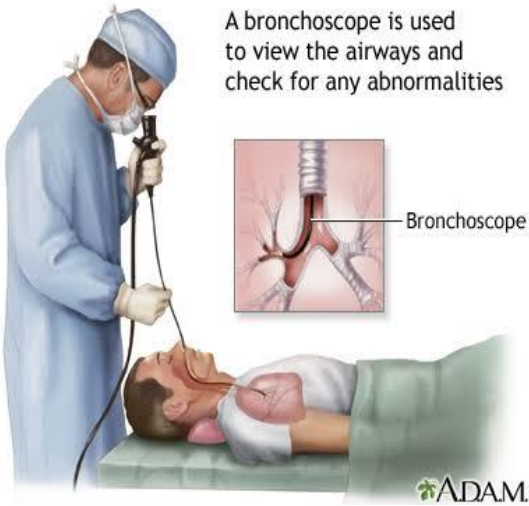
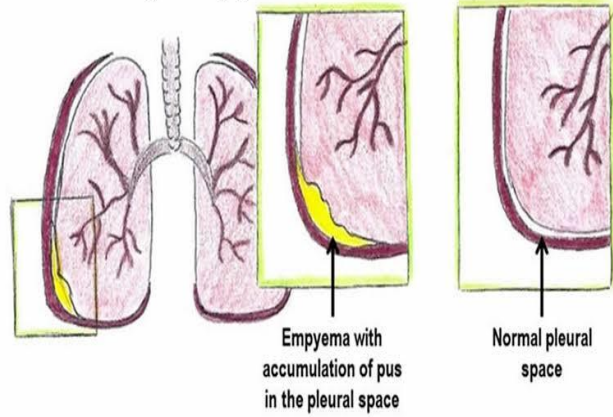
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## PNEUMOTHORAX

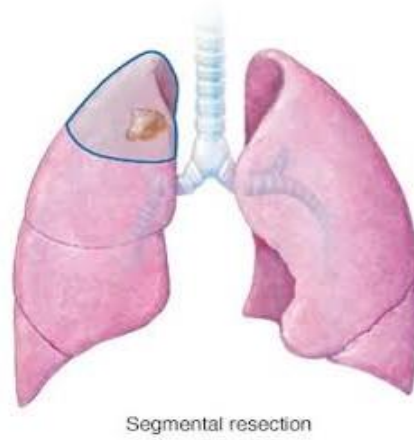


netmeds.com  
India XI Pharmacy

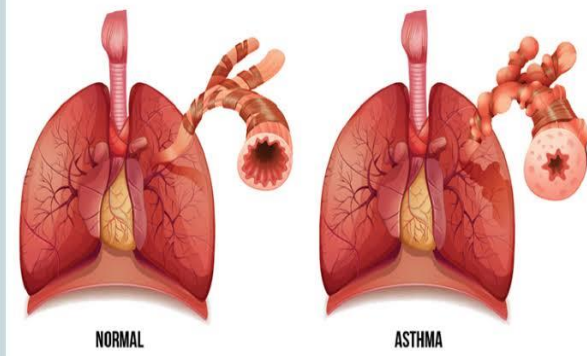
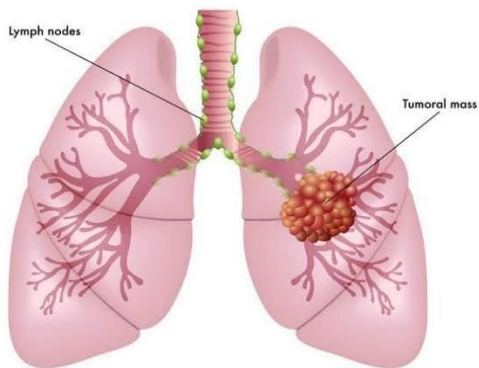
## Pulmonary empyema



A bronchoscope is used to view the airways and check for any abnormalities



## BRONCHOGENIC CARCINOMA

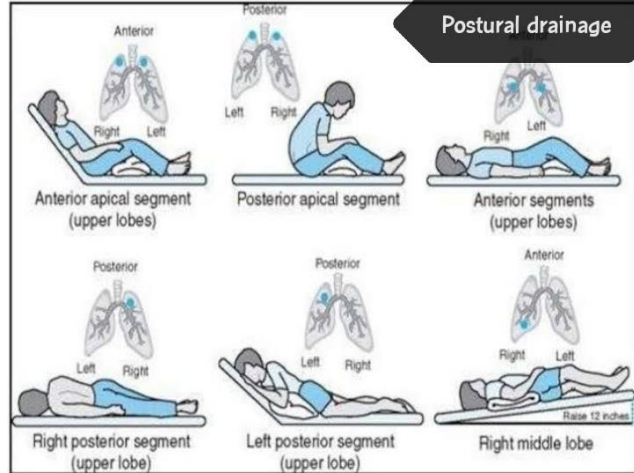




## BRONCHIAL ASTHMA



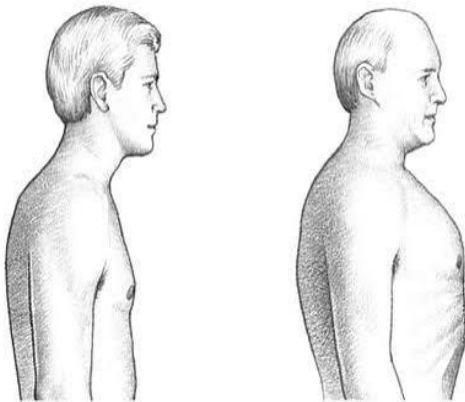
## Postural drainage



## NORMAL VS. BARREL CHEST

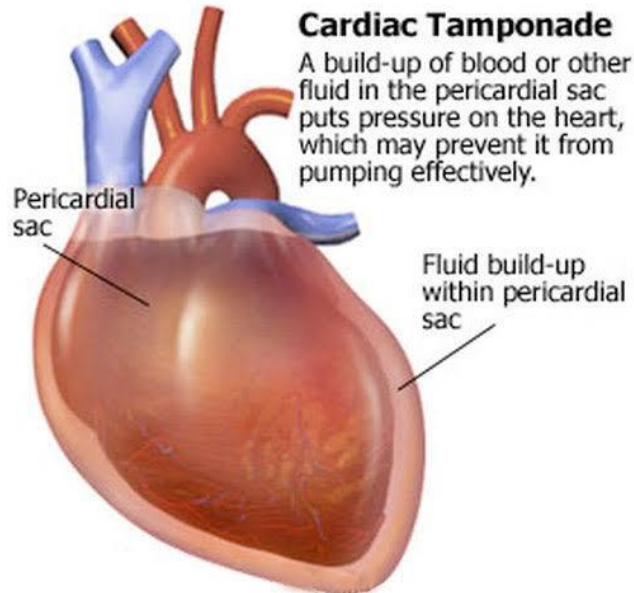
NORMAL CHEST

BARREL CHEST

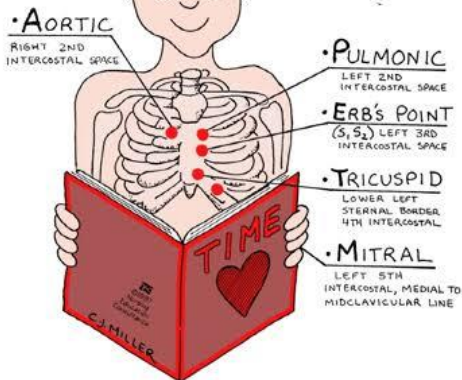


## Cardiac Tamponade

A build-up of blood or other fluid in the pericardial sac puts pressure on the heart, which may prevent it from pumping effectively.



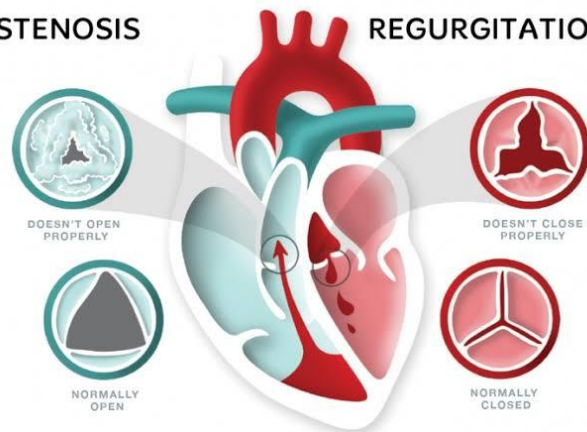
## 5 AREAS FOR LISTENING TO THE HEART



ALL PEOPLE ENJOY TIME MAGAZINE

## STENOSIS

## REGURGITATION



## AORTIC ANEURYSM

