OPEN WOUND :

- Skin or mucous membrane is broken and blood is allowed to escape from the body.

CLOSED WOUND :

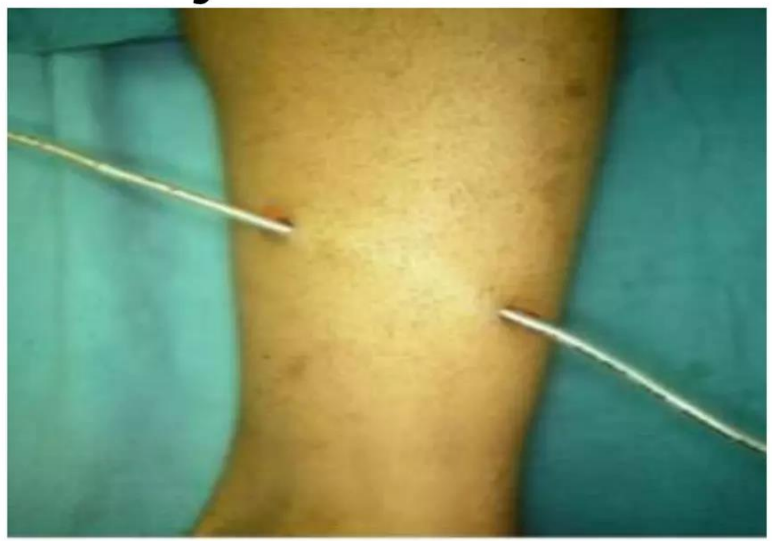
- Tissues are injured but skin is not broken and blood is allowed to escape from circulatory system but

Penetrating Wound :

- Only wound of entry is seen. It may be shallow or deep.
- Penetrating objects : nail, thorn, splinters.

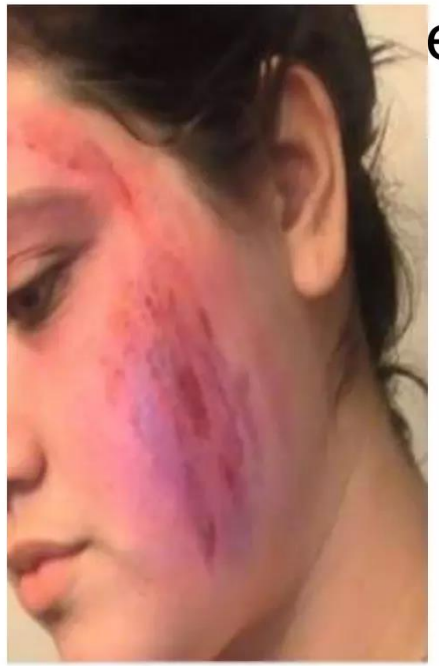
Perforating Wound :

- It has wound of entrance and exit. Generally, it is seen with gunshot wounds.
- ***Entrance wound is always smaller as***



Abrasions :

- Superficial wound caused by rubbing or scrapping in which part of skin surface e

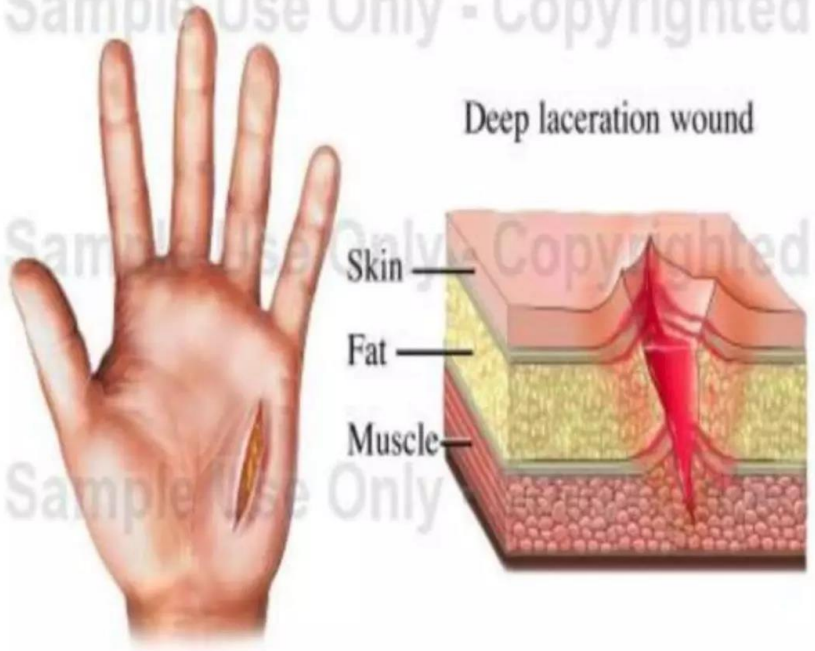


Punctured wound :

- Caused by a stab from pointed object such as nail, knife, bullet, sword.
- Each object tear the skin and proceed in a straight line damaging all tissues in its path.
- Opening in the skin may appear small but the wound can be very deep.
- 2 types i.e. penetrating and perforating

Lacerated wound :

- Open wound with torn tissues and jagged edges.



Contused wound :

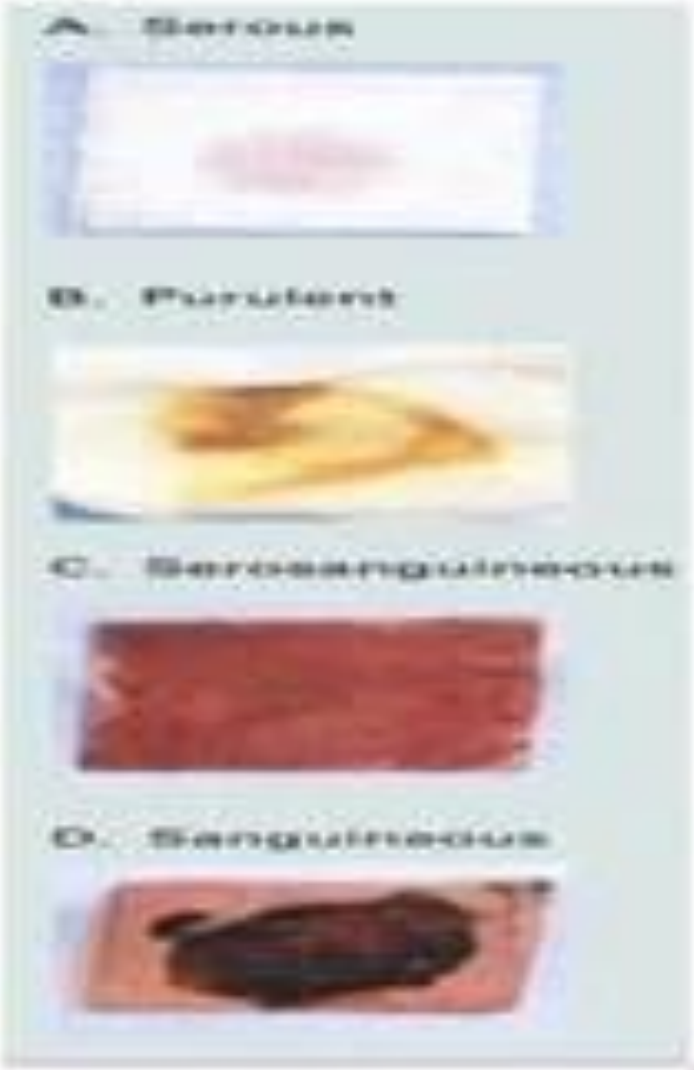
- Most common type of bruises , typically caused by blunt force

Types of wound drainage :

1. ***Serous drainage*** – clear, watery fluid.
2. ***Purulent drainage*** – Thick green , yellow or brown drainage.
3. ***Serosanguineous drainage*** – Thin watery drainage that is blood tinged.
4. ***Sanguineous drainage*** – bloody drainage

large amount – suspect hemorrhage

bright drainage – indicates fresh bleeding



Blood oozing:

This type of drainage is a sign of healing, and it is not usually a cause for concern when it appears in normal amounts. Serosanguineous drainage that becomes redder may be an indication of active bleeding, a reopened wound, or a hemorrhage.

Purulent (pronounced “PYUR-uh-luhnt”) drainage (pus or exudate) is a symptom of infection. This thick, milky fluid oozes from a wound that isn't healing properly. It contains a mixture of dead cells and bacteria, as well as white blood cells, which rush to the site at the first sign of injury.

- Serous - a clear drainage.
- Sanguineous - a bloody drainage.
- Serosanguineous - a clear, blood-tinged drainage.
- Purulent - a thick yellow, brown, green or grey drainage.

Sanguineous drainage:

It is the fresh red blood that comes out of the injury when it first occurs. It will thicken as the blood starts to clot. This initial drainage occurs when a wound is in the first stage of healing, known as the inflammatory stage. Sanguineous drainage may last longer in deeper wounds.

Many people experience a slight inflammation, but if symptoms persist, a person should see their doctor. Antibiotic treatment can usually resolve a tattoo related infection. Without treatment, complications of a skin infection, such as a deeper infection, and, rarely, sepsis may occur in some people.

A keloid scar is when a scar keeps growing and becomes bigger than the original wound.

It can happen if you have too much of a substance called collagen in your skin.

It can happen after any sort of injury or damage to your skin such as a cut, burn, surgery, acne or a body piercing.

Collagen — a protein found throughout the body — is useful to wound healing, but when the body produces too much, keloids can form.

Keloid growth might be triggered by any sort of skin injury — an insect bite, acne, an injection, body piercing, burns, hair removal, and even minor scratches and bumps.

Cholecystitis occurs when the gallbladder becomes inflamed.

Gallstones are the most common cause of gallbladder inflammation but it can also occur due to blockage from a tumor or scarring of the bile duct.

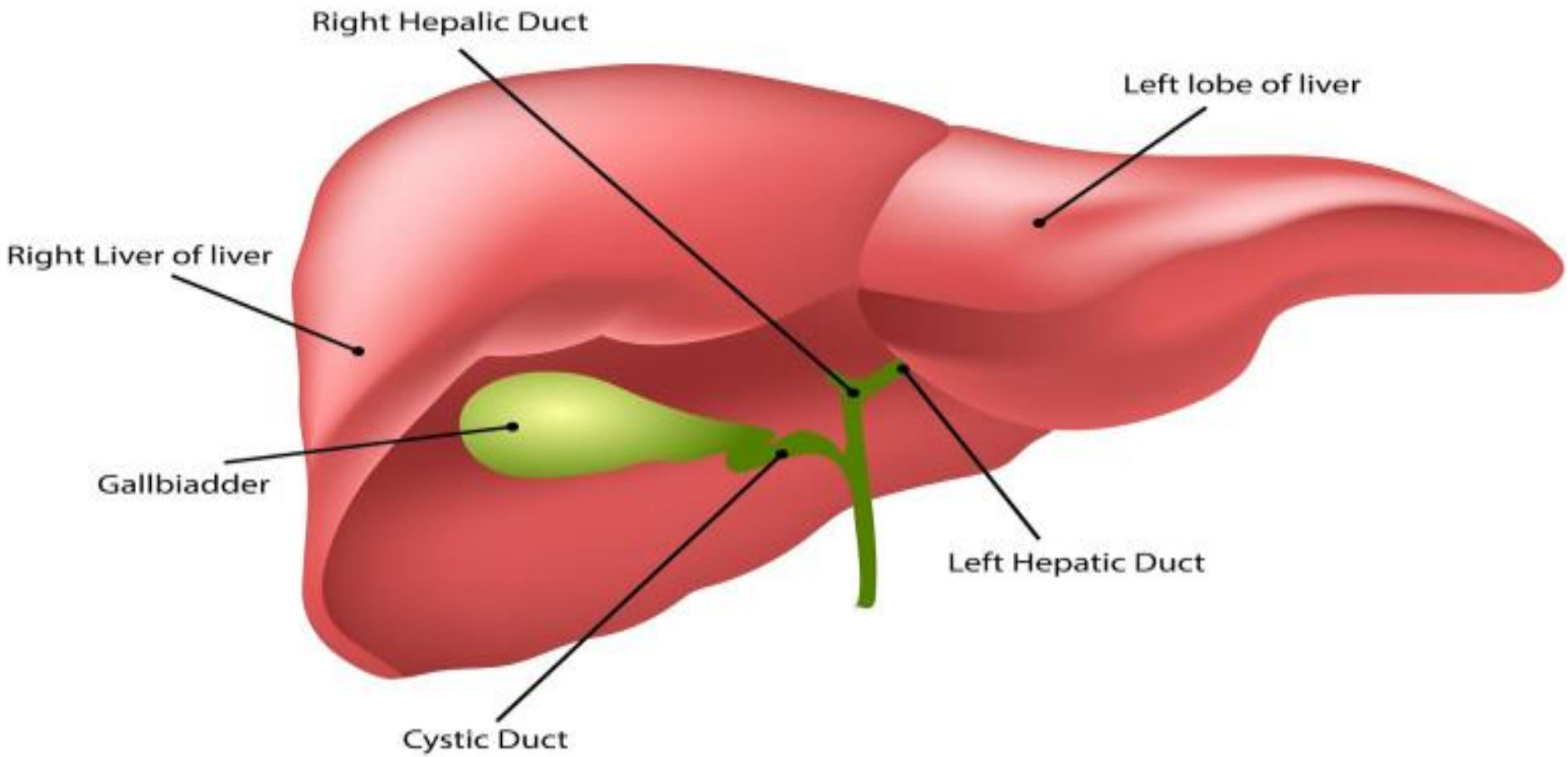
The greatest risk factor for cholecystitis is gallstones.

Risk factors for gallstones include female sex, increasing age, pregnancy, oral contraceptives, obesity, diabetes mellitus, rapid weight loss

The liver filters all of the blood in the body and breaks down poisonous substances, such as alcohol and drugs. The liver also produces bile, a fluid that helps digest fats and carry away waste.

The gallbladder stores and concentrates bile from the liver. The bile is then released into the first section of the small intestine (the duodenum), where it helps your body to break down and absorb fats from food.
Bile helps with digestion. It breaks down fats into fatty acids

THE MEDICAL STRUCTURE OF THE LIVER



The primary functions of the liver are:

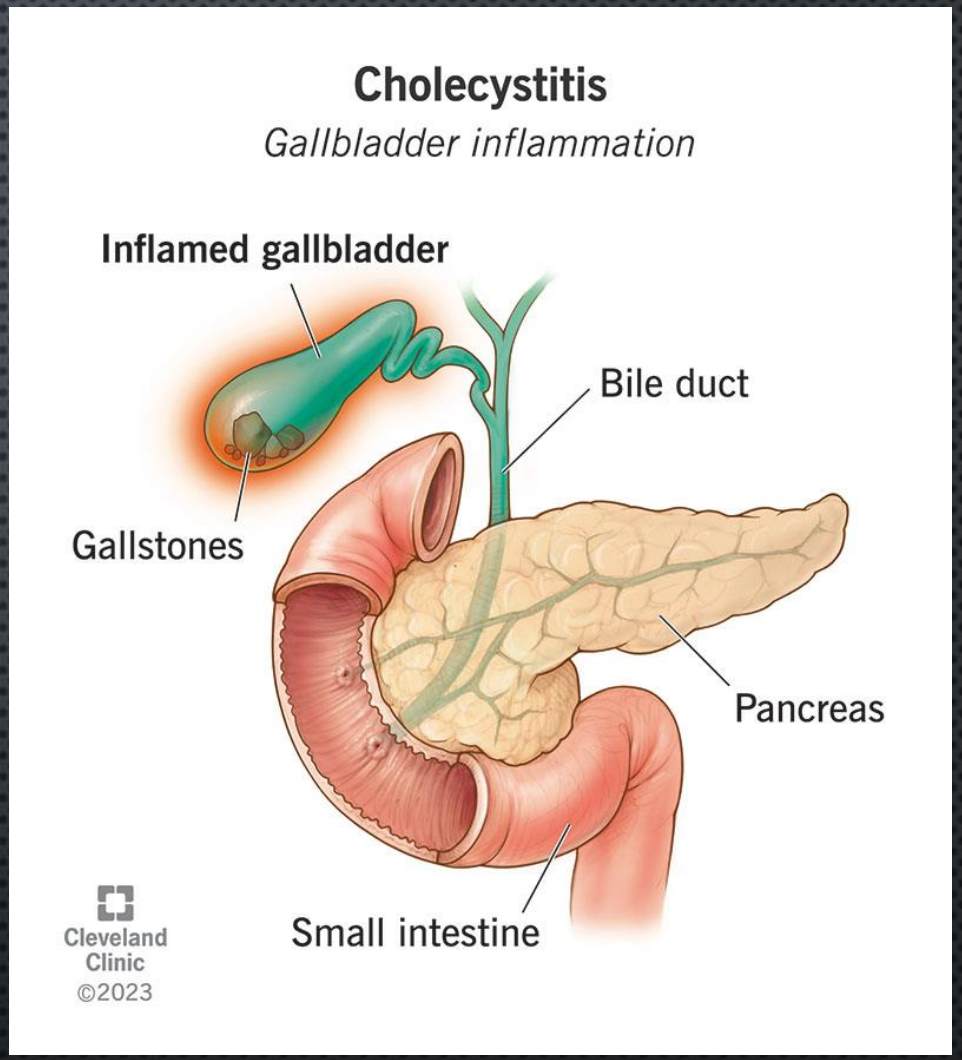
- Bile production and excretion.
- Excretion of bilirubin, cholesterol, hormones, and drugs.
- Metabolism of fats, proteins, and carbohydrates.
- Enzyme activation.
- Storage of glycogen, vitamins, and minerals.
- Synthesis of plasma proteins, such as albumin, and clotting factors

Albumin enters your bloodstream and helps keep fluid from leaking out of your blood vessels into other tissues. It is also carries hormones, vitamins, and enzymes throughout your body. Without enough albumin, fluid can leak out of your blood and build up in your lungs, abdomen (belly), or other parts of your body.

Bilirubin is a substance produced by the breakdown of red blood cells. Bilirubin (bil-ih-ROO-bin) passes through the liver and is eventually excreted out of the body. Higher than usual levels of bilirubin may mean different types of liver or bile duct problems.

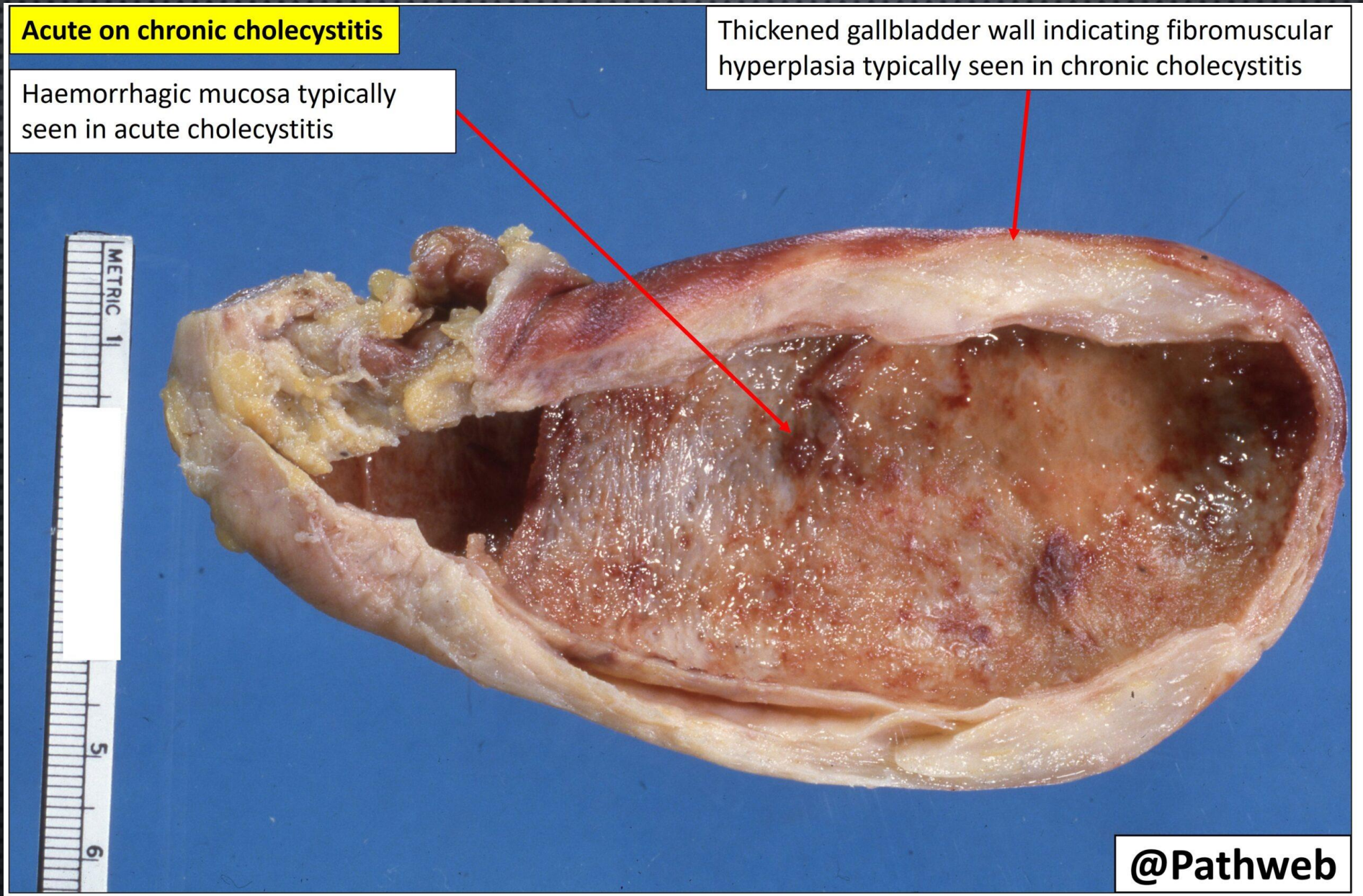
Bile salts are made of bile acids that are conjugated with glycine or taurine. They are produced in the liver, directly from cholesterol. Bile salts are important in solubilizing dietary fats in the watery environment of the small intestine.

Acute cholecystitis as seen on CT. Note the fat stranding around the enlarged gallbladder.



Cholecystitis is inflammation in gallbladder, the small, pear-shaped organ that stores bile.

Typical CT findings in acute cholecystitis include gallbladder distention, wall thickening, mucosal hyperenhancement, pericholecystic fat stranding or fluid, and gallstones with a sufficient attenuation difference from bile to be visualized


Acute on chronic cholecystitis
Haemorrhagic mucosa typically seen in acute cholecystitis
Thickened gallbladder wall indicating fibromuscular hyperplasia typically seen in chronic cholecystitis
METRIC
@Pathweb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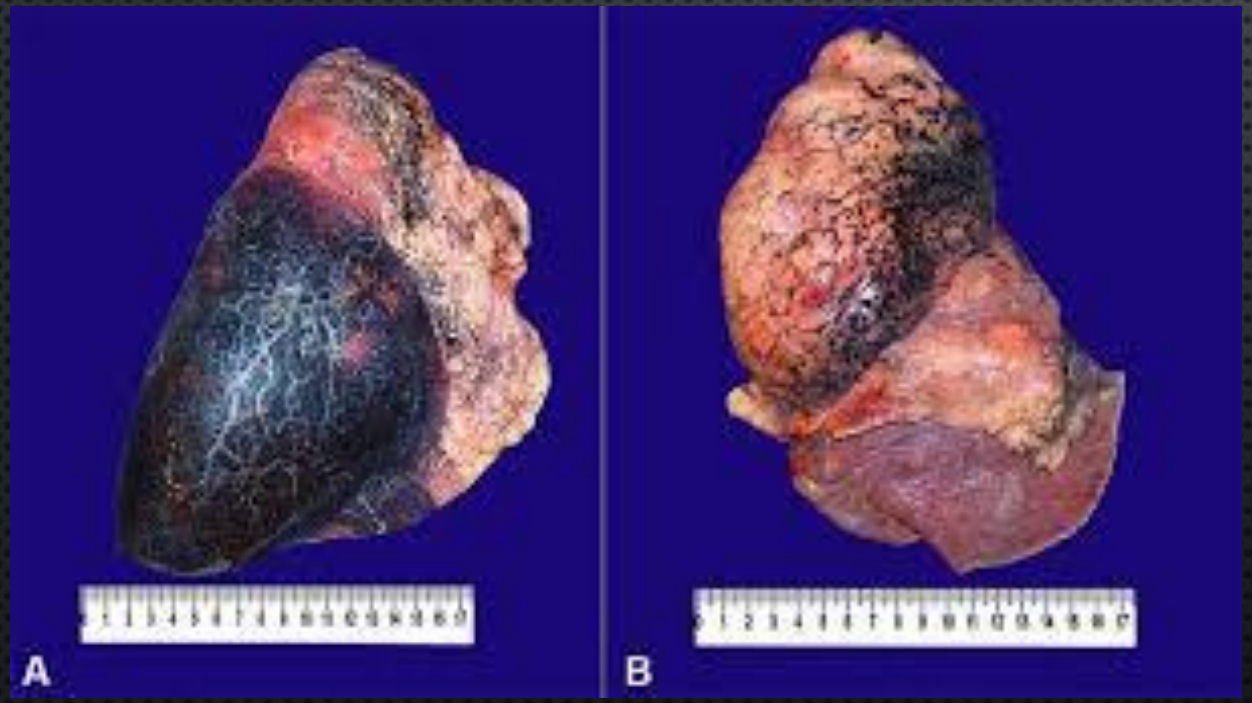
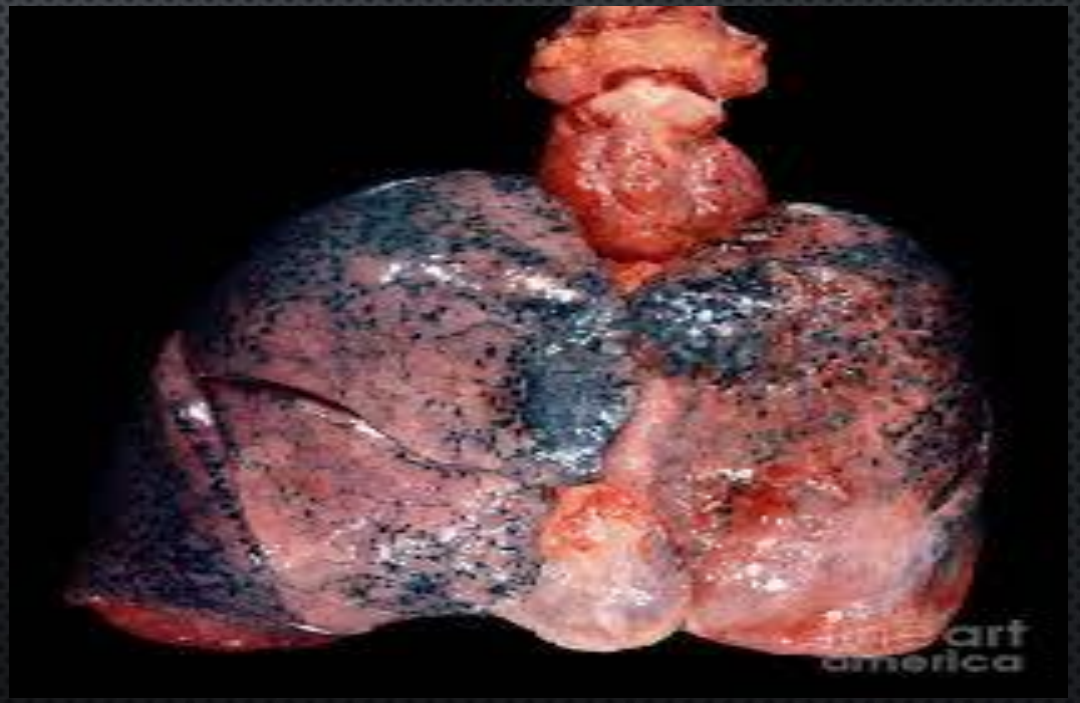
PITT COUNTY ME

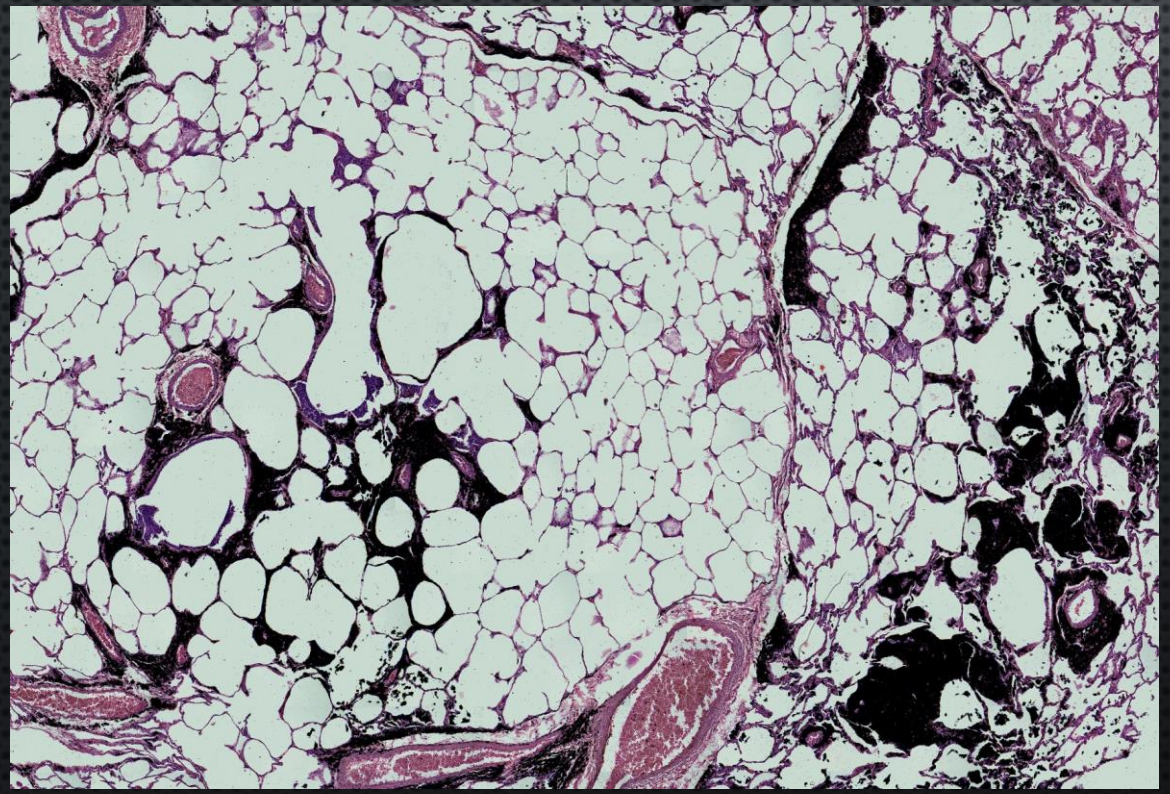
Anthracosis / Coal pneumoconiosis'

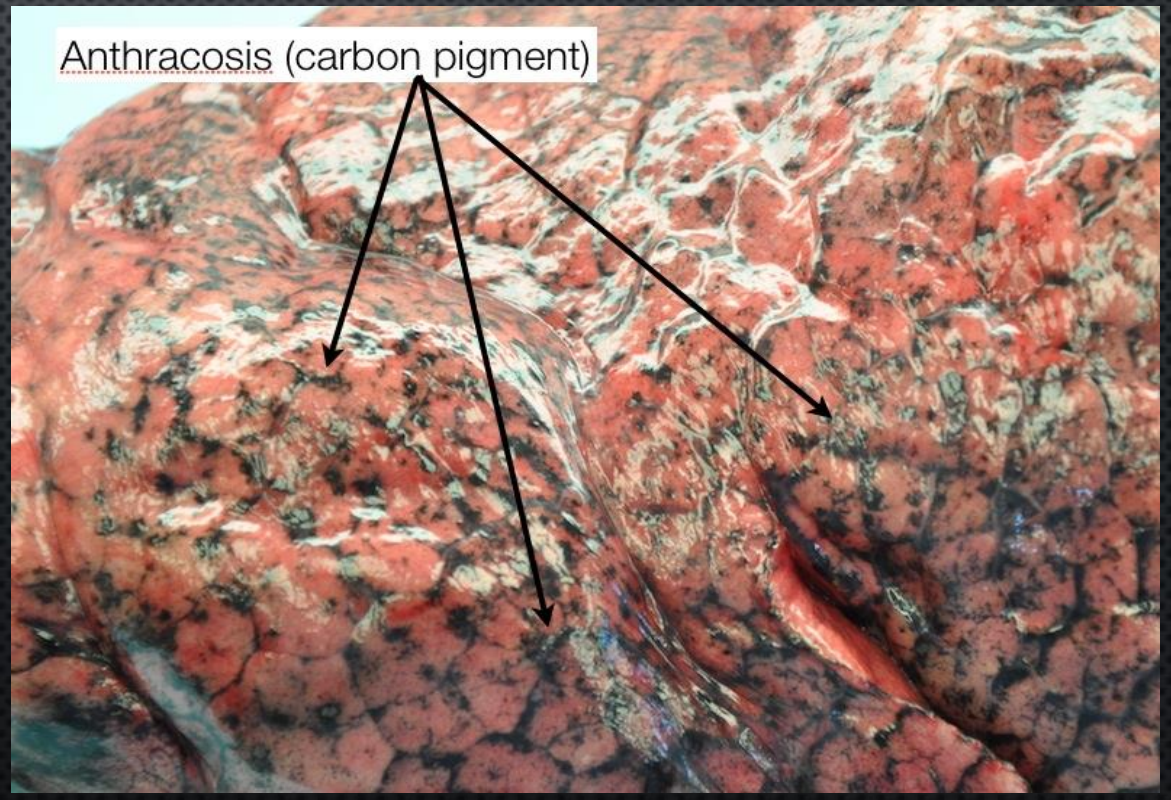
black discoloration of bronchi from carbon pigment that typically causes deformation and obstruction, may be asymptomatic or cause respiratory symptoms (such as cough and labored breathing), and is often associated with the inhalation of coal dust and wood smoke.



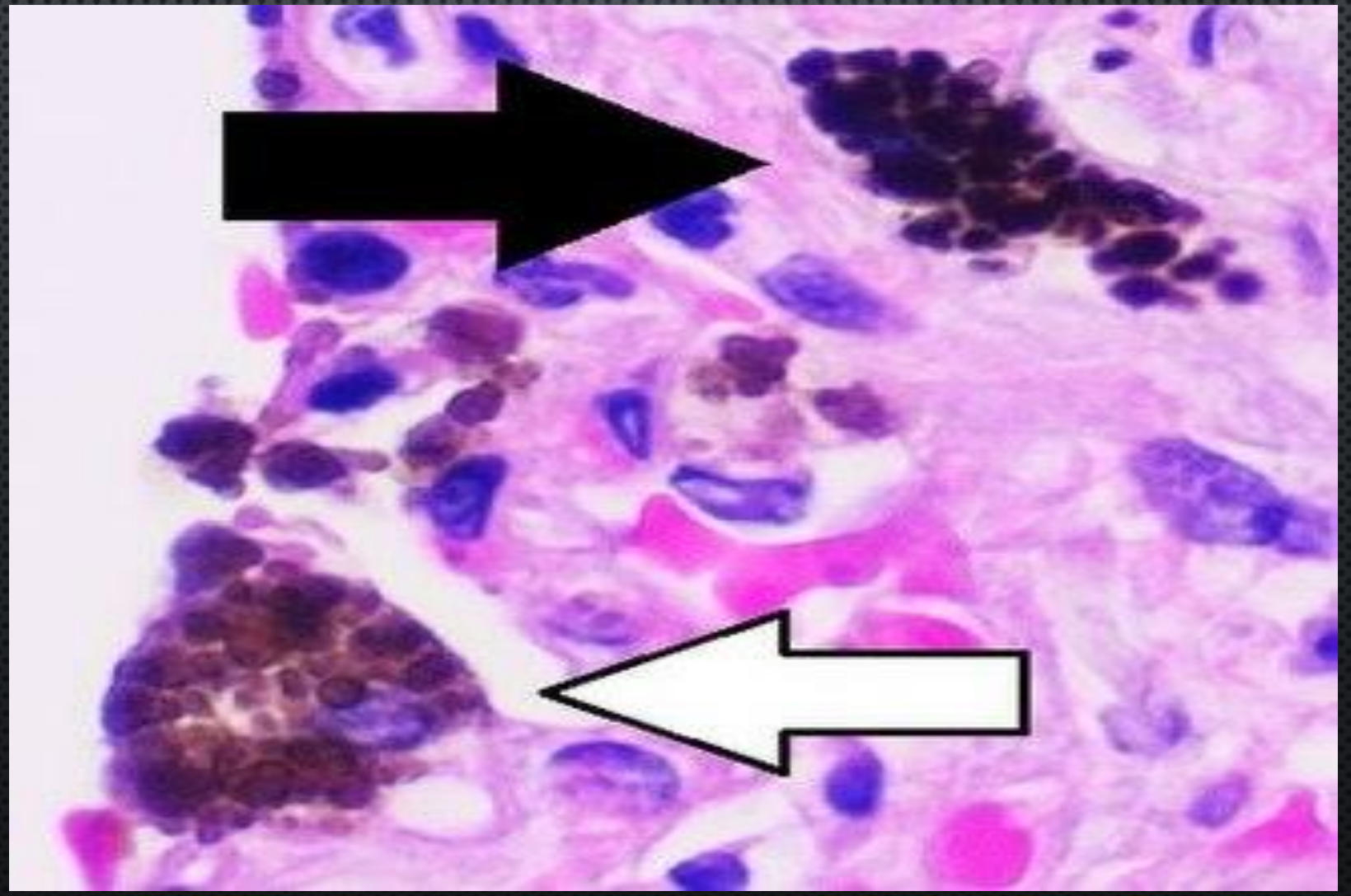


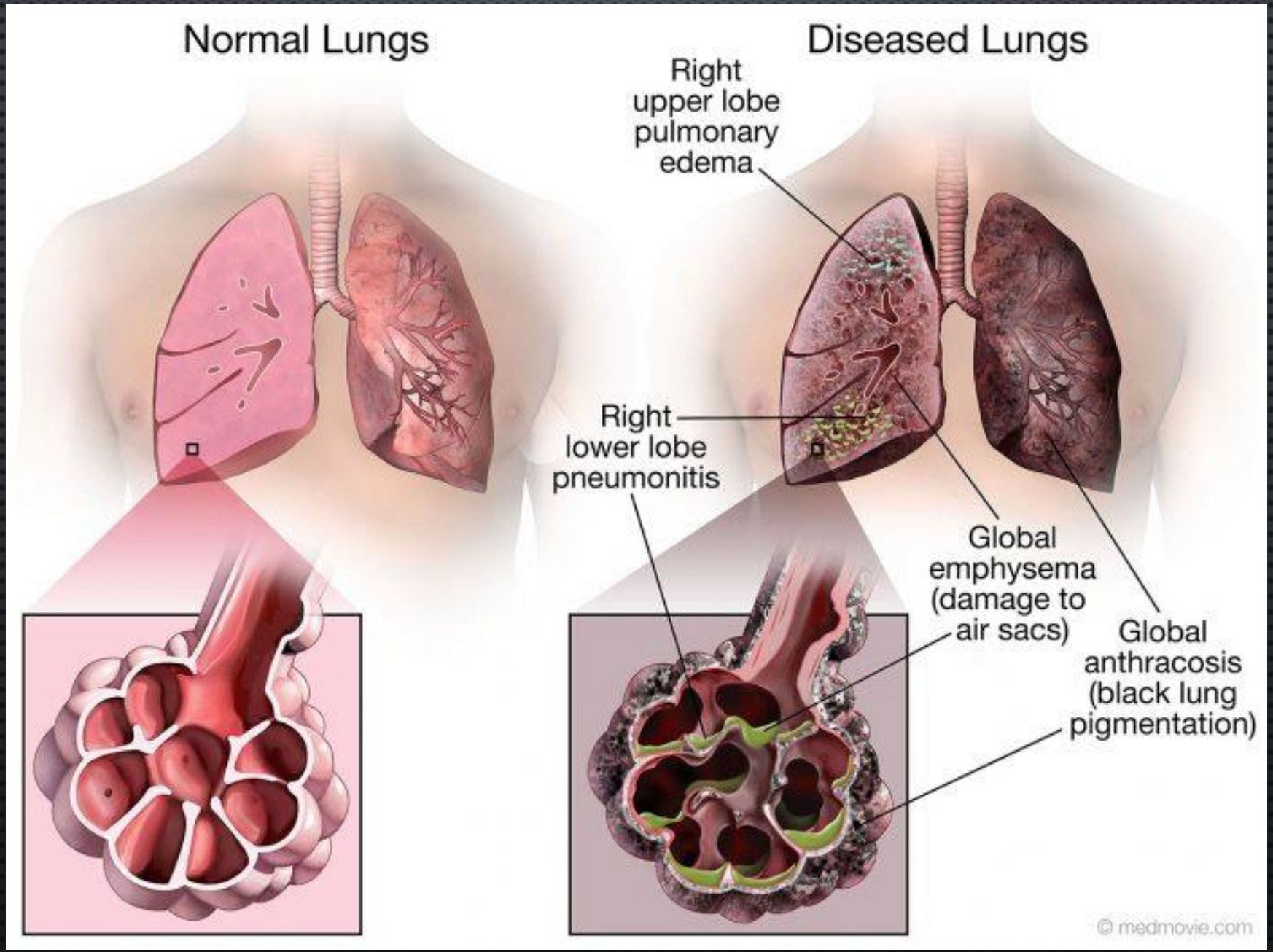
Anthracosis of the lungs is black discoloration of bronchial mucosa that can occlude bronchial lumen and is associated with bronchial anthracofibrosis (BAF). This disease usually presents with a chronic course of dyspnea and or cough in an elderly non-smoker woman or man.



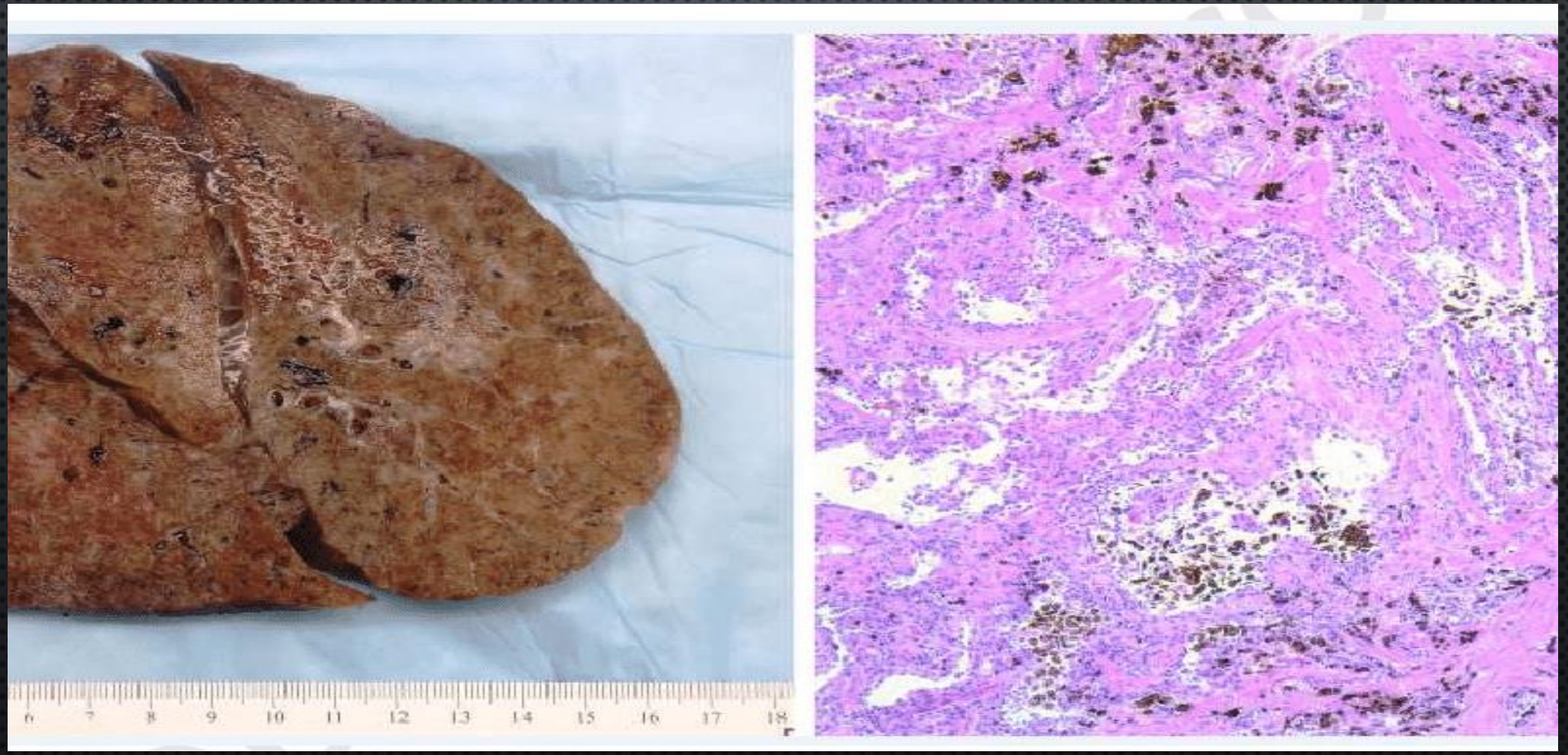


Micrograph of anthracosis, with interstitial pigment deposition (black arrow) and an anthracotic macrophage (white arrow)




Normal Lungs
Diseased Lungs
Right upper lobe pulmonary edema
Right lower lobe pneumonitis
Global emphysema (damage to air sacs)
Global anthracosis (black lung pigmentation)
© medmovie.com

Gross (left) and microscopic (right) pathology from explanted native lungs revealing diffuse homogeneous alveolar septal fibrosis with clusters of alveolar hemosiderin-laden macrophages and interstitial hemosiderin deposition.



Stages of Appendicitis

Uncomplicated

- Early or simple appendicitis occurs from a blockage that causes the appendix to become swollen and filled with mucus

Complicated

- A mass or tumor forms creating a bulge that can causes blood flow blockage
- After 24-72 hours, the appendix can form a hole or rupture

According to the so-called “safe house” theory, the appendix protects a collection of beneficial gut bacteria when certain diseases wipe them out from elsewhere in the GI tract.

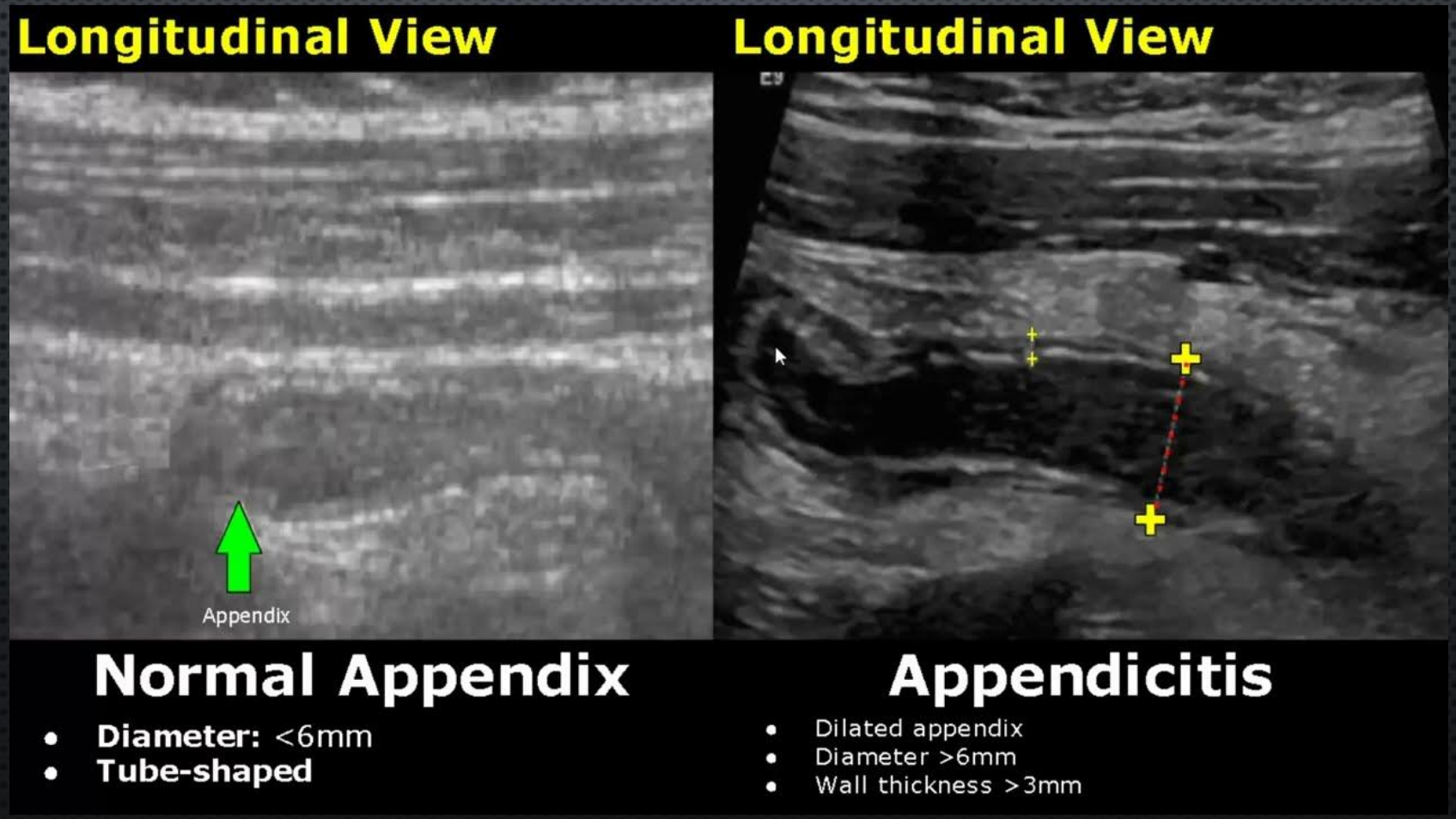
Once the immune system has rid the body of the infection, the bacteria emerge from the appendix biofilm and recolonize the gut

Appendicitis may be caused by various infections, such as viruses, bacteria, or parasites, in your digestive tract.

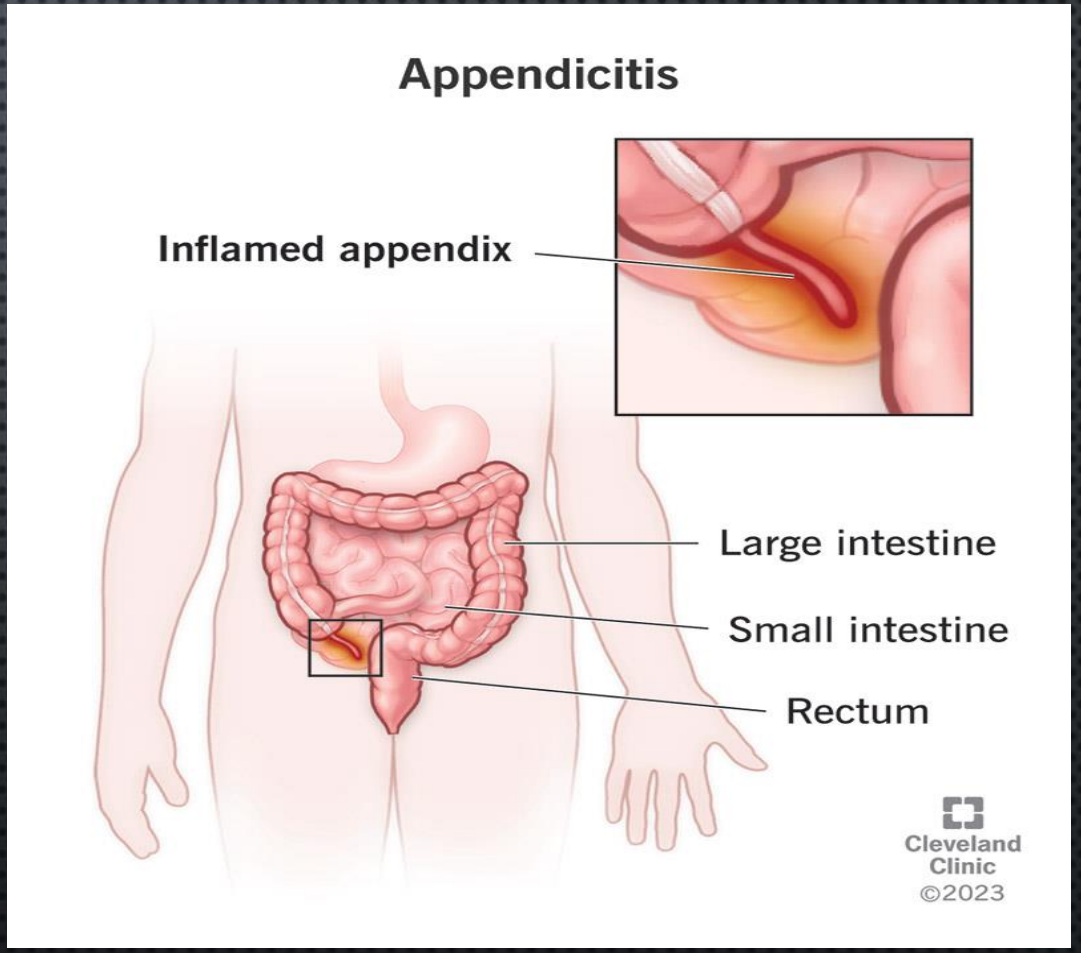
Often, it may happen when the tube that joins your appendix with your large intestine gets blocked or trapped by stool.

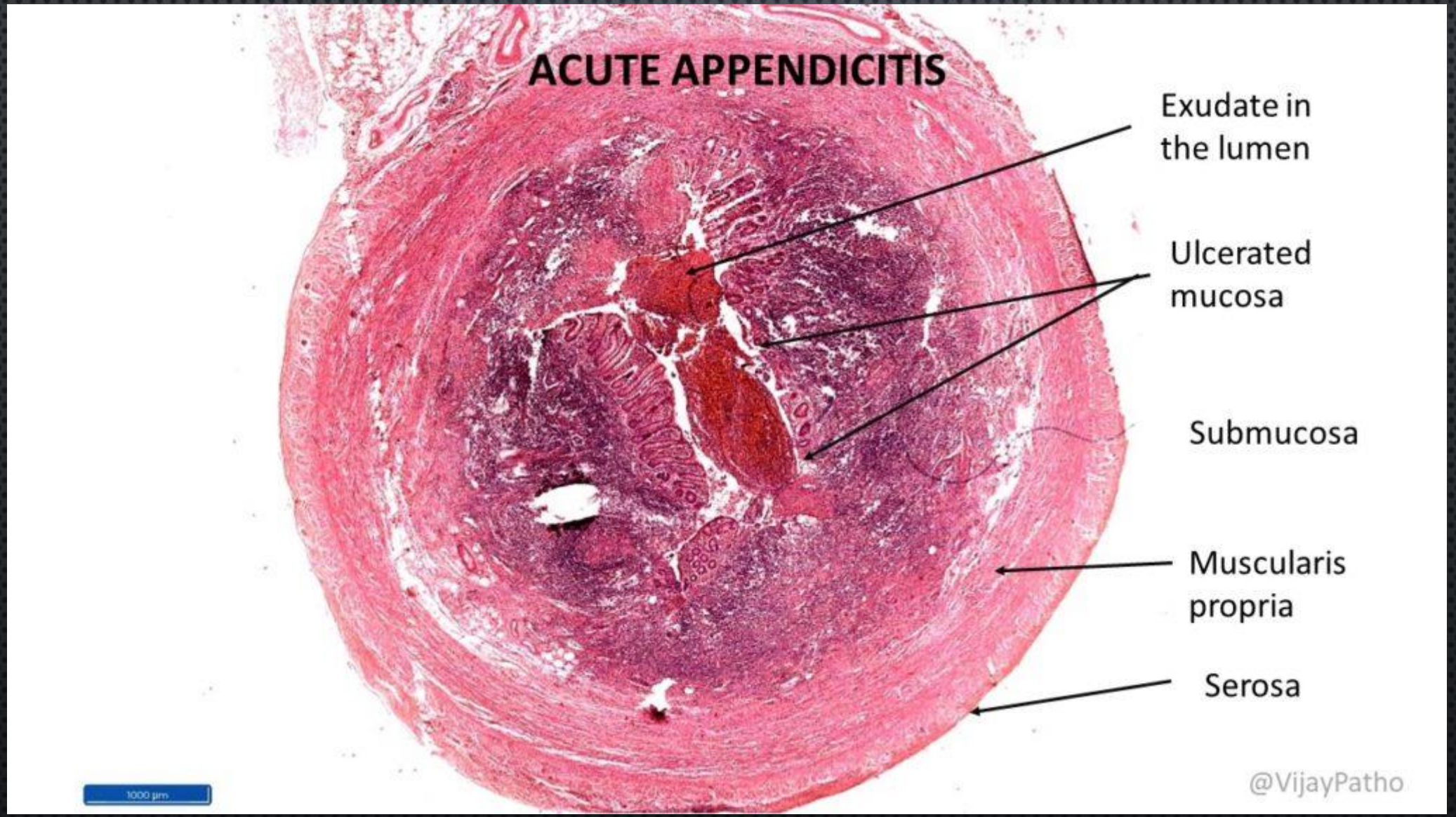
Sometimes tumors can cause appendicitis. The appendix then becomes sore and swollen.

Tests typically include a physical exam, blood and urine tests and an imaging test, such as a CT scan or ultrasound.
Appendectomy via open laparotomy or laparoscopy is the standard treatment for acute appendicitis.

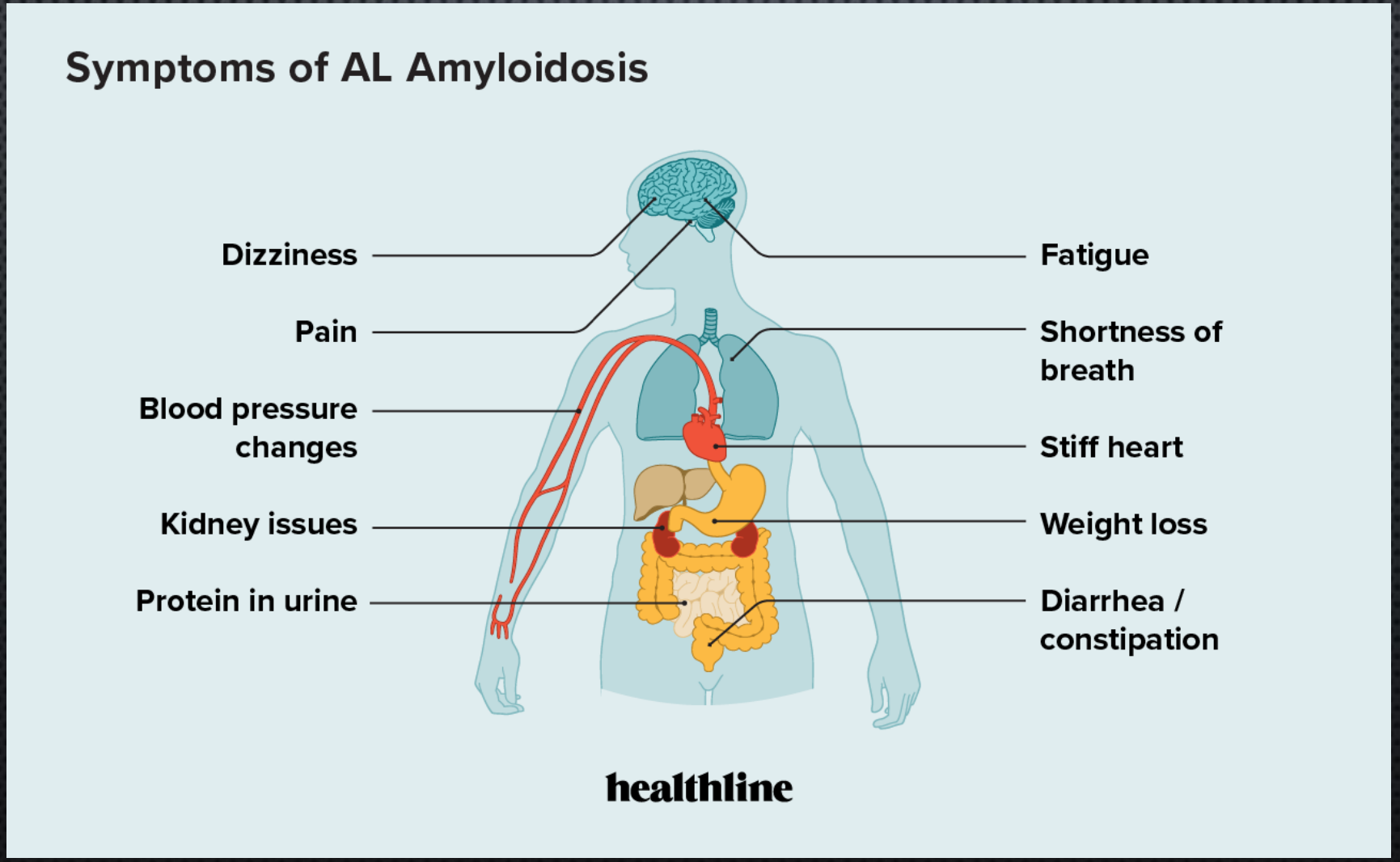


Appendicitis is inflammation of the appendix. Symptoms commonly include right lower abdominal pain, nausea, vomiting, and decreased appetite. However, approximately 40% of people do not have these typical symptoms.




ACUTE APPENDICITIS
Exudate in the lumen
Ulcerated mucosa
Submucosa
Muscularis propria
Serosa
1000 µm
@VijayPatho

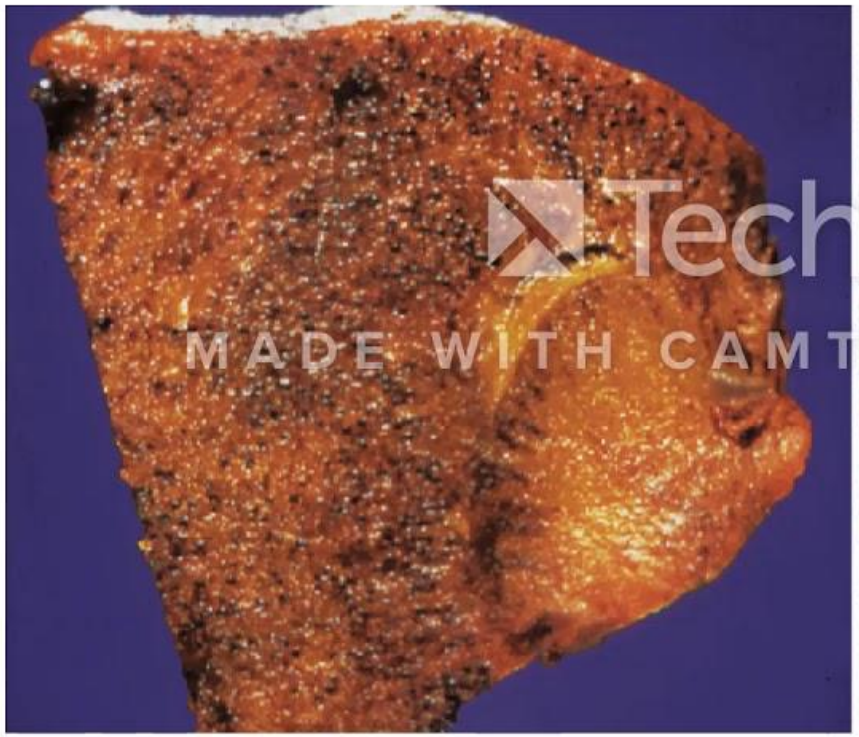
Amyloidosis is a rare disease characterized by a buildup of abnormal amyloid deposits in the body. Amyloid deposits can build up in the heart, brain, kidneys, spleen and other parts of the body. A person may have amyloidosis in one organ or several



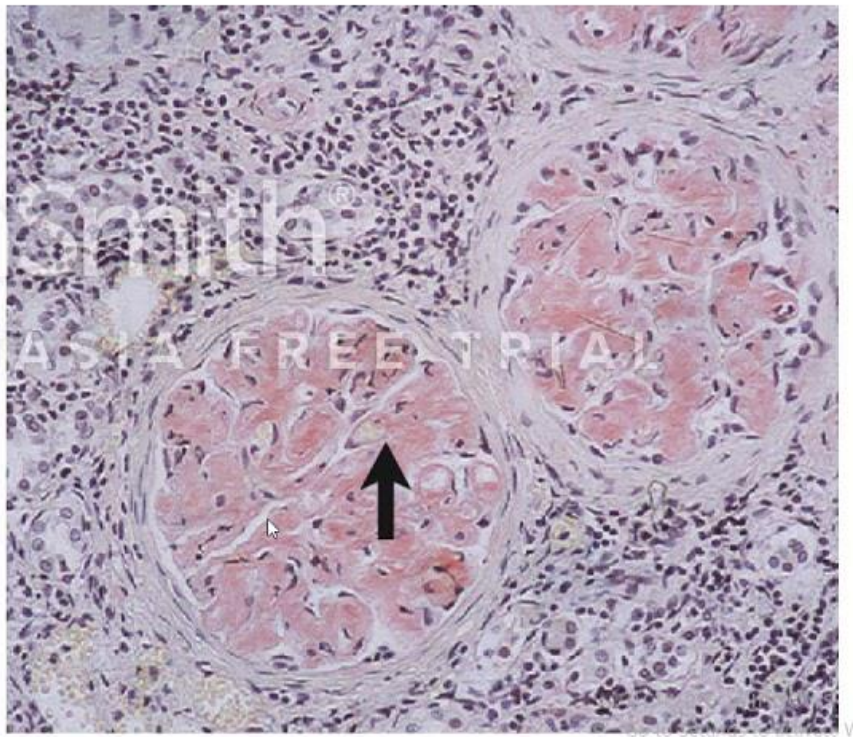
Functional amyloids play a beneficial role in a variety of physiologic processes (eg, long-term memory formation, gradual release of stored peptide hormones).

Amyloidosis of the kidney

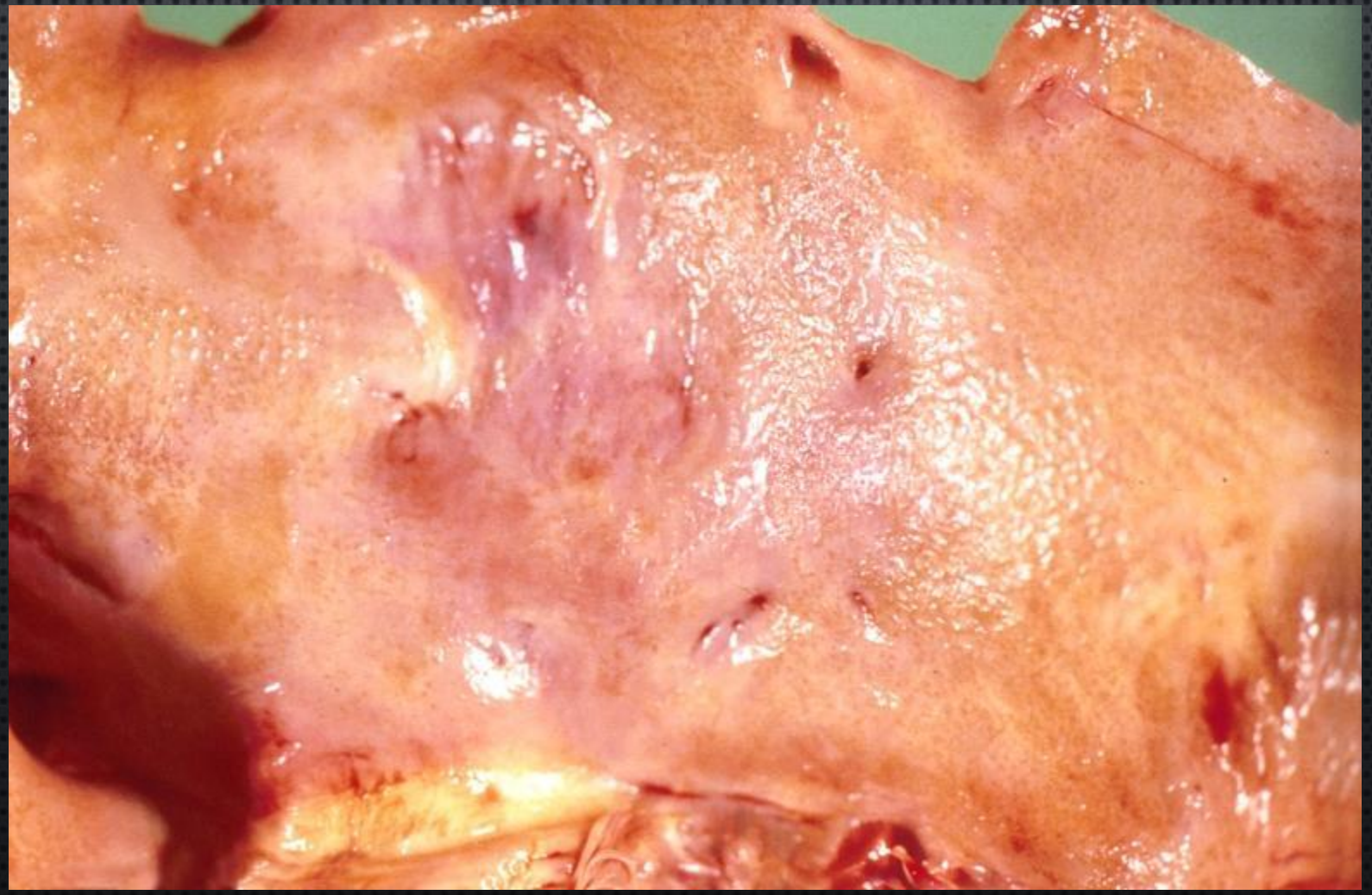
Lugol's solution



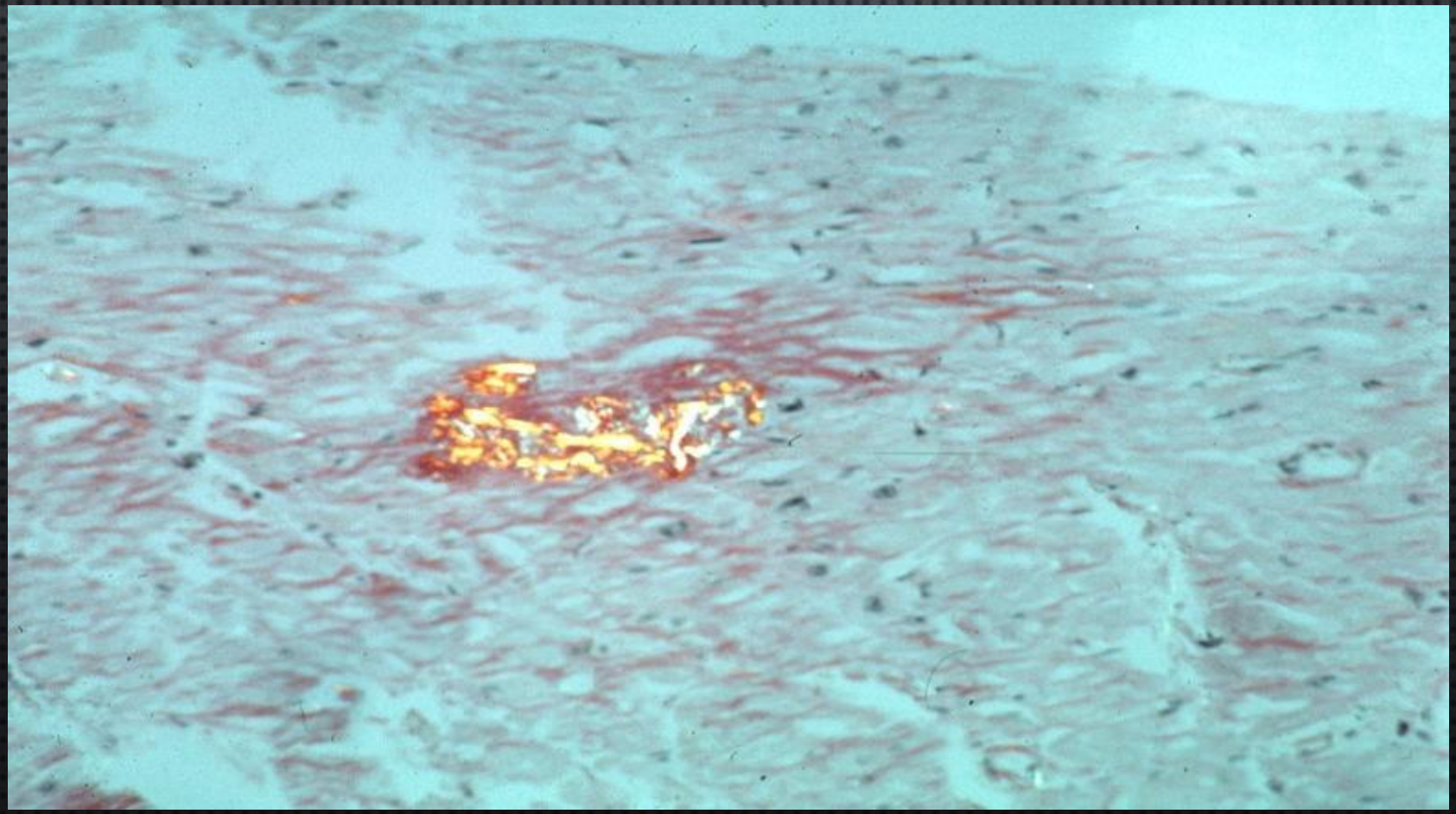
Congo red stain



Amyloidosis, left atrium, endocardial nodules

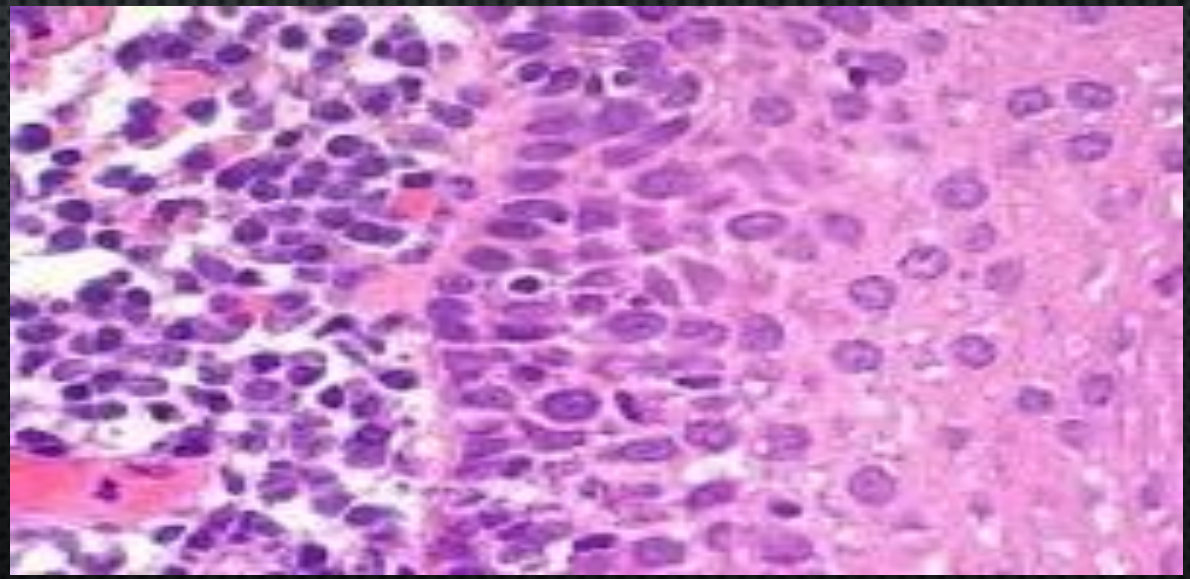


Heart: Perivascular amyloid, amyloidosis, congo red showing birefringence. Congo Red is a diazo dye that is red in alkaline solution and blue in acid solution and used especially as an indicator and as a biological stain.



In histology and microscopy, Congo red is used for staining in amyloidosis, and for the cell walls of plants and fungi, and for the outer membrane of Gram-negative bacteria.

H&E staining is the staining of tissue sections with Haematoxylin, which stains cell nuclei blue, and Eosin, which stains the extracellular matrix, cytoplasm and other structures varying shades of pink. This allows visualisation of the structure, distribution of cells and morphological changes within a tissue sample.



Heart: Perivascular amyloid, amyloidosis (Hematoxylin and eosin staining