

Skin complexion

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JAUNDICE

- Jaundice or icterus, is a striking yellowish discoloration of the skin and sclerae from increased levels of bilirubin, a bile pigment derived chiefly from the breakdown of hemoglobin.
- Normally, the hepatocytes conjugate unconjugated bilirubin with other substances, making the bile water soluble, and then excrete the conjugated bilirubin into the bile. The bile passes through the cystic duct into the common bile duct, which also drains the extrahepatic ducts from the liver. More distally, the common bile duct and the pancreatic ducts empty into the duodenum at the ampulla of Vater.

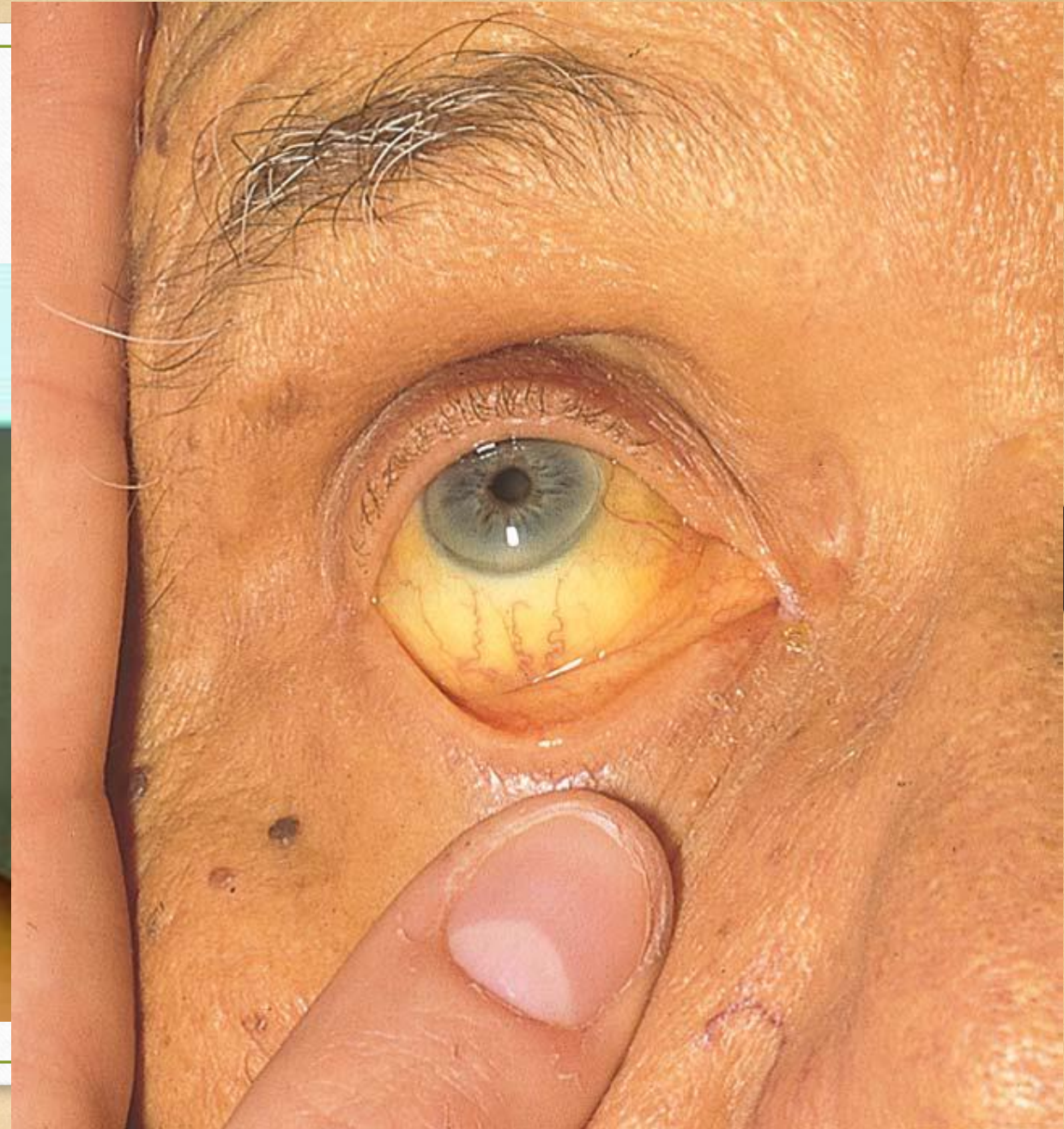
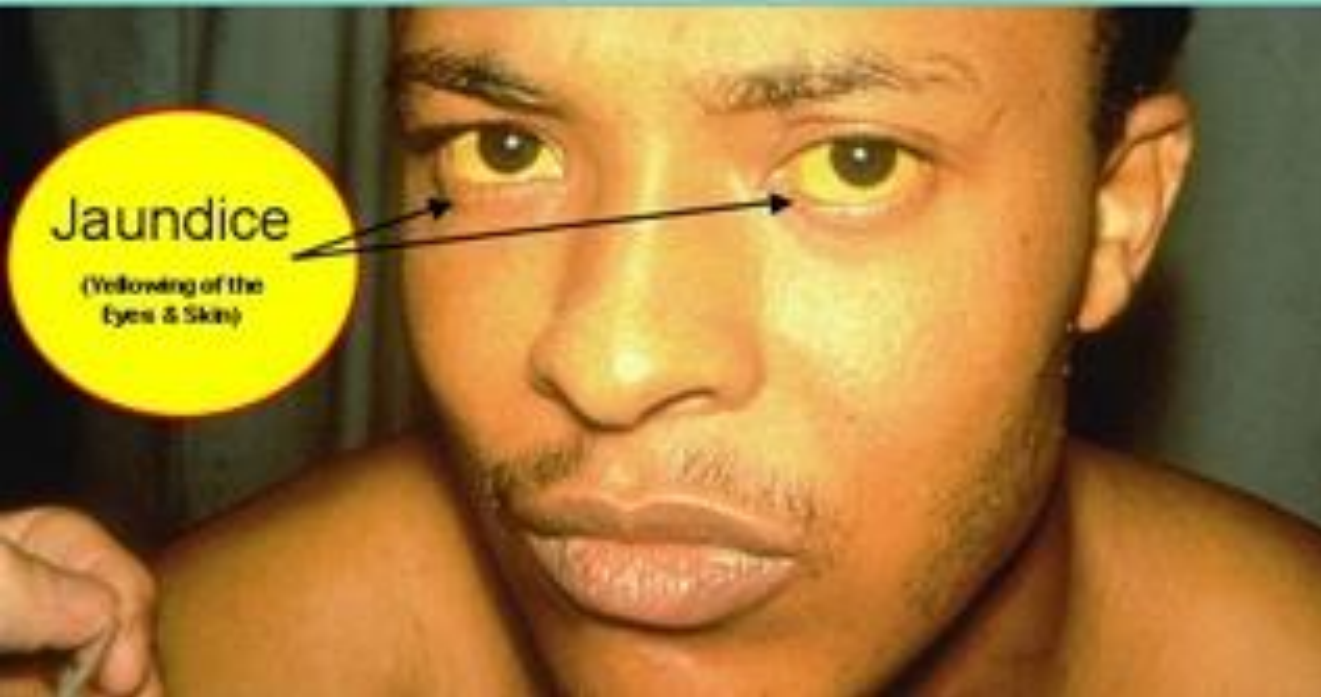
JAUNDICE

- It happens when the serum bilirubin level rises twice above the normal upper limit.
- It is deposited in the tissues of the body that contains elastin.

Mechanisms of Jaundice

- Increased production of bilirubin.
- Decreased uptake of bilirubin by the hepatocytes.
- Decreased ability of the liver to conjugate bilirubin.
- Decreased excretion of bilirubin into the bile, resulting in absorption of *conjugated* bilirubin back into the blood.

Hep A Patient with Jaundice



CYANOSIS

- Blue discolouration of the skin and mucous membranes; it is due to the presence of deoxygenated haemoglobin in the superficial blood vessels.
- Occurs when there is more than 50g/L of deoxygenated haemoglobin in the capillary blood.
- Types-central and peripheral
- Central cyanosis- abnormal amount of deoxygenated haemoglobin in the arteries and that a blue discolouration is present in parts of the body with good circulation.eg;tongue.
- Peripheral cyanosis-occurs when blood supply to a particular part of body is reduced,eg;lips in cold weather becomes blue but the tongue is spared.

DIFFERENCES BETWEEN CENTRAL AND PERIPHERAL CYANOSIS

	<i>Central</i>	<i>Peripheral</i>
Mechanism	Diminished arterial oxygen saturation	Diminished flow of blood to the local part
Sites	On skin and mucous membranes e.g. tongue, lips, cheeks etc.	On skin only
Clubbing and polycythemia	Usually associated	Not associated
Temperature of the limb	Warm	Cold
Local heat	Cyanosis remains	Cyanosis abolished
Breathing pure oxygen	Cyanosis decreased	Cyanosis persists

cyanosis







Causes of cyanosis

- Central cyanosis

- 1) Decreased arterial oxygen saturation.

- high altitude

- lung disease

- right to left cardiac shunt

- 2) Polycythaemia

- 3) Haemoglobin abnormalities; methaemoglobinemia, sulphhaemoglobinemia

- Peripheral cyanosis

- 1) All the causes of central cyanosis

- 2) Exposure to cold

- 3) Reduced cardiac output

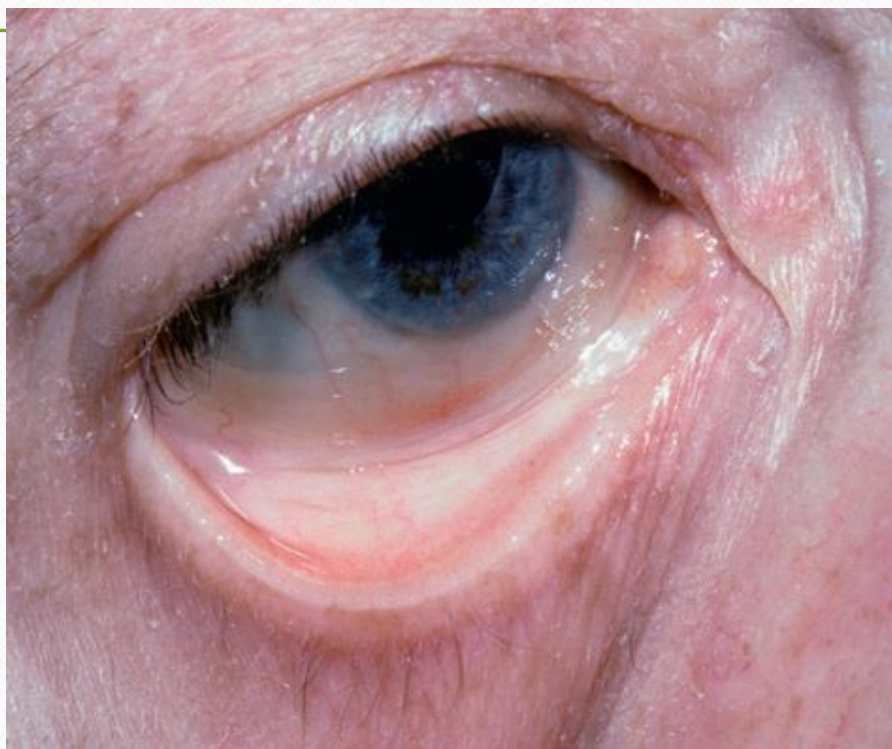
- left ventricular failure

- shock

- 4) Arterial or venous obstruction

PALLOR

- Deficiency of haemoglobin can produce pallor of the skin.
- Should be noticeable especially in the mucous membranes of the sclerae if the anaemia is severe- Hb of less than 7g/L.
- Facial pallor can also be seen in patients with shock, due to the reduction of cardiac output. These patients usually appear cold and clammy and significantly hypotensive.





Causes of anaemia

- MICROCYTIC ANAEMIA

- 1) Iron deficiency anaemia

- chronic bleeding

- malabsorption

- hookworm

- pregnancy

- 2) Thalassemia minor

- 3) Sideroblastic anaemia

- 4) Longstanding anaemia of chronic blood loss

Macrocytic anaemia

- Megaloblastic bone marrow
 - 1) Vitamin B12 deficiency due to
 - pernicious anaemia
 - gastrectomy
 - tropical sprue
 - ileal disease; crohn's disease, ileal resection
 - fish tapeworm
 - poor diet in vegetarians

2) Folate deficiency due to

- dietary deficiency in alcoholics

- malabsorption

- increased cell turnover eg; pregnancy, leukemia, chronic haemolysis

- anti folate drugs – phenytoin, methotrexate, sulphasalazine

non megaloblastic bone marrow

- alcohol, cirrhosis of the liver, hypothyroidism, myelodysplastic syndrome

Normochromic anaemia

- Bone marrow failure
 - aplastic anaemia
 - ineffective haematopoiesis
 - infiltration
- Anaemia of chronic disease
 - chronic inflammation
 - liver disease
 - malignancies, chronic renal failure
- Haemolytic anaemia

Thank You