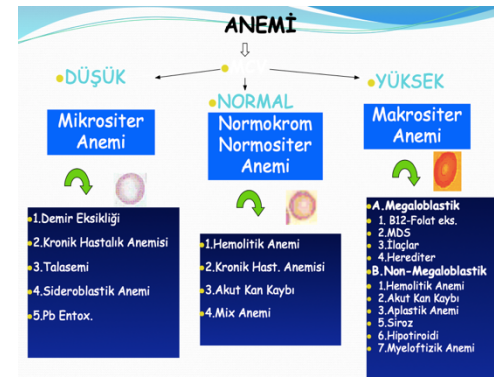
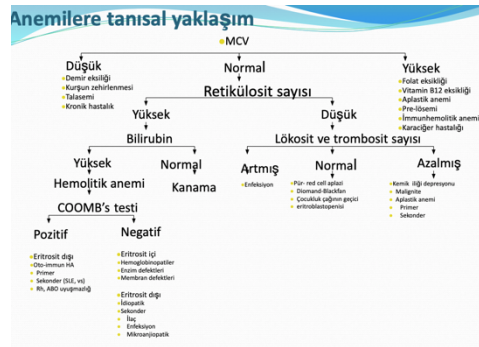


Anemia

Morphological Classification		
MICROCYTIC	NORMOCYTIC	MACROSYTIC
Iron D. A. Thalassemia Sideroblastic A. Lead poison. Copper poison. pyridoxine deficiency. Chronic Disease Anemia	Early stage of anemia Erythropoietin is enough. Myelophytic A. Endocrinopathies Dysproteinemias Chronic Disease Anemia	Megaloblastic B.M. Vit B12 def. Folat def. Nonmegaloblastic B.M. Myelodysplastic Disease. Liver diseases hypothyroidism Hemolytic Anemias



- Anemia is a lower-than-normal erythrocyte count or hemoglobin level.
- Anemia is a finding, never a diagnosis of disease.

When evaluating anemia

- 1st History: Birth and after: Requires assessment of nutrition, development, degree and duration of symptoms, history, family history.
- 2nd physical exam
- 3rd hemogram
 - o MCV lower limit: 70+ years (1 year-10 years old)
 - o upper limit is $80 + 0.6$ for each age.
 - o leukocyte and platelet values are also important to reveal the cause of anemia.

Clinical findings:

- Change according to whether the anemia is acute or chronic.
- Acute anemia can be seen as:
 - o restlessness, agitation, tachycardia and heart failure
 - o Anemic patients may present with restlessness and loss of appetite.
- Symptoms may be milder in chronic anemia: due to compensatory mechanisms.
- In mild to moderate anemia with a hemoglobin level of 6-10 g/dL, only restlessness, loss of appetite and weakness can be seen.
- Also tachycardia, cardiac dilatation, heart murmur, pain in the legs, anorexia (growth retardation), pica, pagophagia, angular stomatitis, atrophic glossitis,
- decrease in gastric acidity, exudative enteropathy, malabsorption,
- pain in the musculoskeletal system, easy breakage of nails and hair, spoon nail,
- atrophy of tongue papillae, flat and shiny tongue, decrease in physical performance,
- increased susceptibility to infections, T lymphocyte dysfunction, Decreased leukocyte transformation, Decreased leukocyte killing functions, decreased leukocyte myeloperoxidosis, decreased skin hypersensitivity,
- blue sclera,
- tissue ID affects neurological and mental functions such as attention deficit, restlessness, learning difficulties, even if there is no anemia.
- In advanced stages, fainting, ventricular hypertrophy and dilatation may be observed as complications. The progression of hypoxia may lead to angina attacks and myocardial infarction, and heart failure may develop.

Also - Peripheral smear

- Reticulocyte count
- Coombs test
- Osmotic fragility