

Iron Deficiency Anemia



Learning Objectives

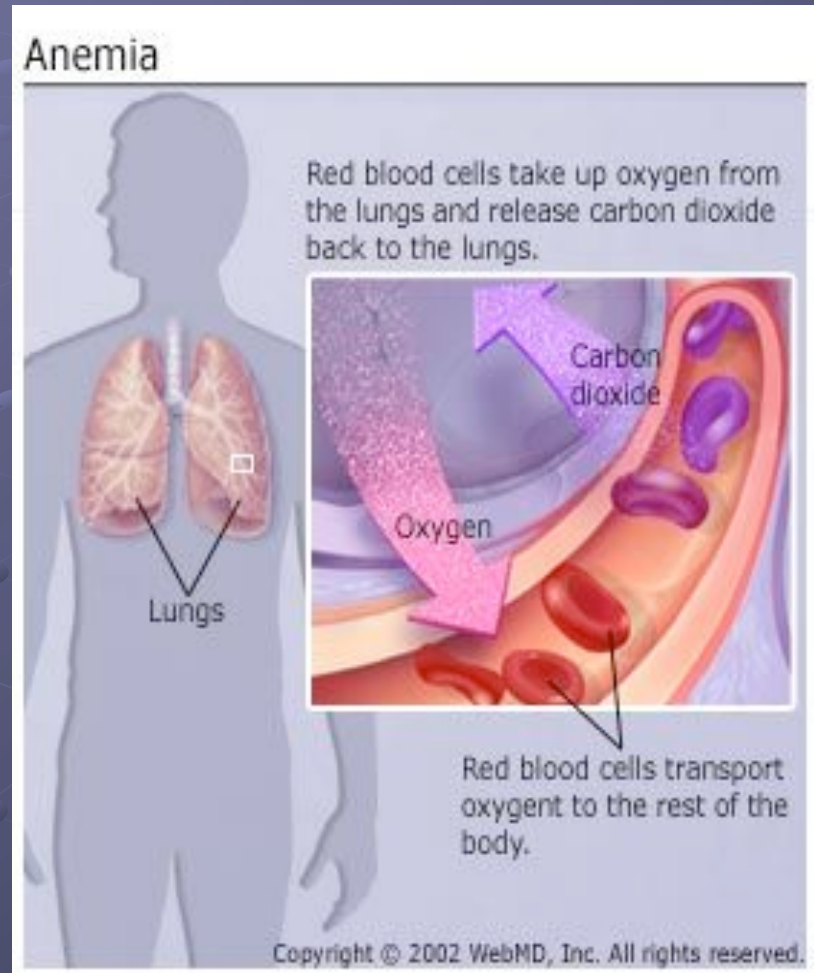
- At the end of the presentation, students will be able to:
 - Define Anemia
 - Define Hemoglobin
 - List 5 symptoms of anemia
 - List 2 causes for anemia
 - List a treatment for anemia

What is Anemia?

- Anemia, one of the more common blood disorders, occurs when the level of healthy **red blood cells (RBCs)** in the body becomes too low.
- This can lead to health problems because RBCs contain **hemoglobin**, which carries oxygen to the body's tissues.

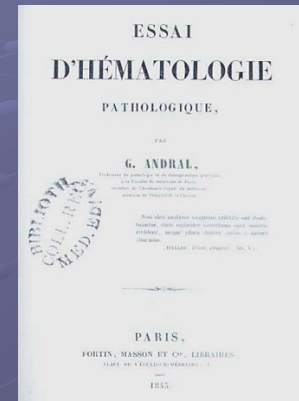
What is Anemia?

- Anemia can cause a variety of complications, including fatigue and stress on bodily organs.



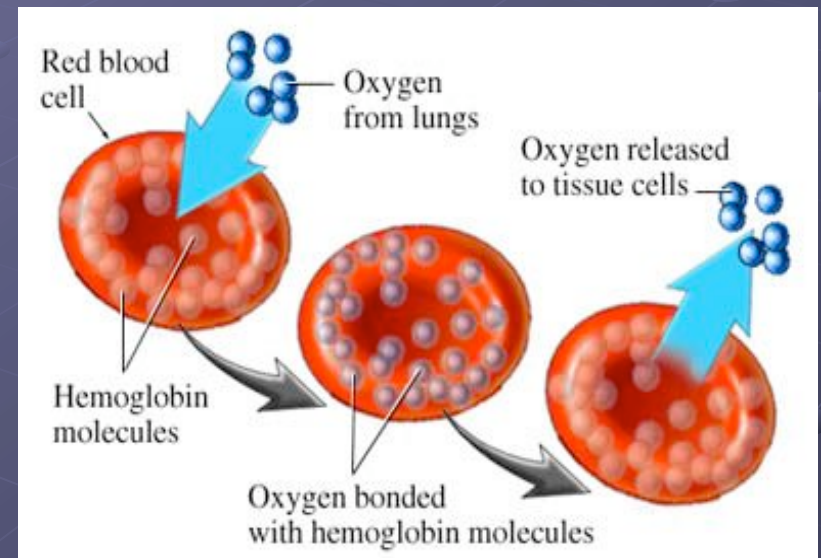
History of Anemia

- French physician Gabriel Andral is credited with introducing the Term anemia around 1829.
- English physician Thomas Addison gave the first complete description of the disease.
- The first step toward curing pernicious anemia was taken by American pathologist George Whipple.



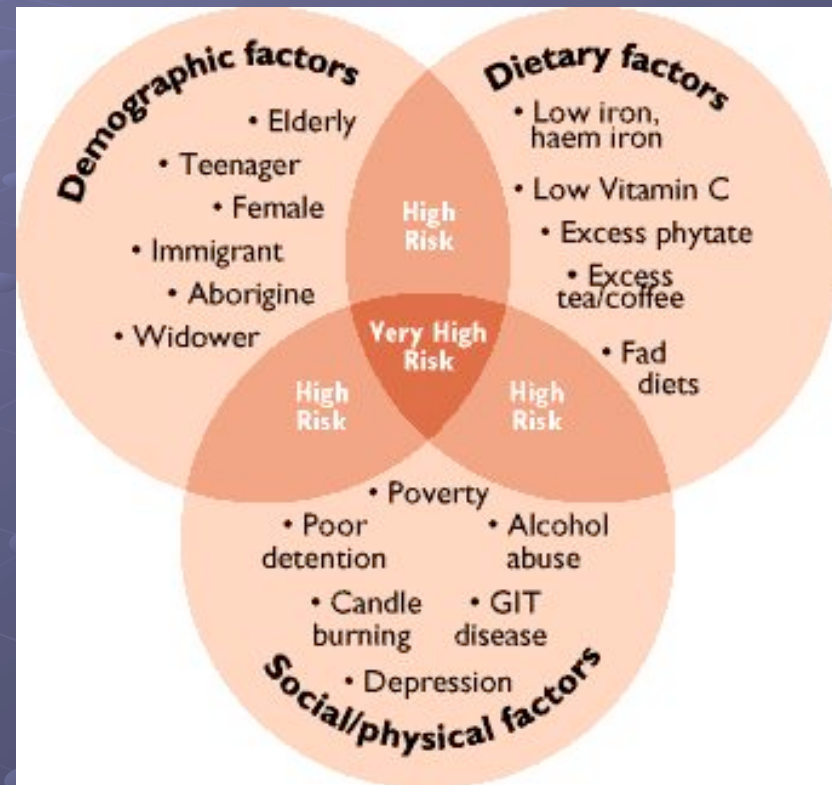
Causes

- Blood loss, such as heavy menstrual periods or internal bleeding
- A lack of iron in your diet
- An inability to absorb iron
- Pregnancy
- Women, children and vegetarians are at higher risk for anemia.



Signs and Symptoms of Anemia

- Extreme fatigue, pale skin, weakness, shortness of breath, headache, lightheadedness, cold hands and feet.
- Inflammation or soreness of the tongue
- Brittle nails



Signs and Symptoms of Anemia

- Cravings for non-nutritive substances, such as ice, dirt or pure starch.
- Poor appetite, especially in infants and children with iron deficiency anemia



Diagnosis

- Blood Test
- Examination of RBCs and Hematocrit
 - The percentage of your blood volume made up by RBCs and hemoglobin.
 - Normal levels of hemoglobin are: **11.1 and 15.0 grams per deciliter (g/dL)**.
 - A lower hemoglobin level indicates **anemia**.
- Additional Tests:
 - Endoscopy
 - Colonoscopy



Treatment

- Increased intake of iron-rich foods is beneficial
- Iron supplementation, iron tablets
- Vitamin C
- Medications
- Antibiotics and other medications to treat peptic ulcers



Treatment

- Surgery to remove a bleeding polyp, a tumor or a fibroid
- Blood transfusions to replace iron and hemoglobin quickly



Prevention

- Eat foods rich in iron
- Red meat, seafood, poultry and eggs
- Plant-based food: iron-fortified cereals, breads and pastas. Beans and peas, dark green leafy spinach, raisins, nuts, and seeds.
- Drink citrus juice containing Vitamin C



Review Questions

1. What is anemia?
2. RBCs contain _____ which carries oxygen to the body.
3. RBC stands for _____
4. Vitamin C is not necessary to treat anemia:
TRUE FALSE
5. Examples of Iron rich foods are:
 - A) Red meat and chicken
 - B) Pizza
 - C) Pasta
 - D) A and C
 - E) All of the above