

Special topics in nutrition and food processing (Anemia)

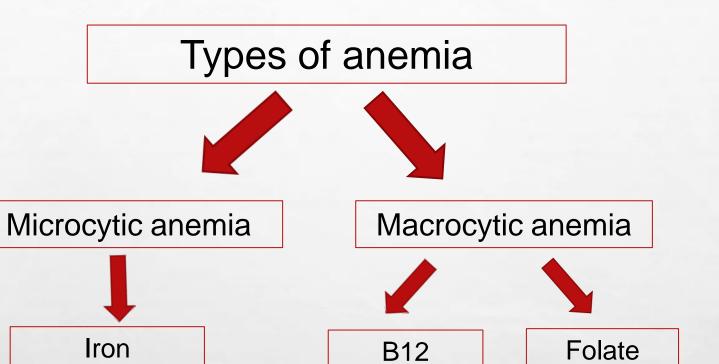
Lecturer: Dr. Mohammed sabbah

Prepared by: Abeer Hamad



Definition:

- A common condition through out the world has many different causes.
- Nutritional anemias occur when a nutrient required to synthesize hemoglobin or red blood cell is lacking.

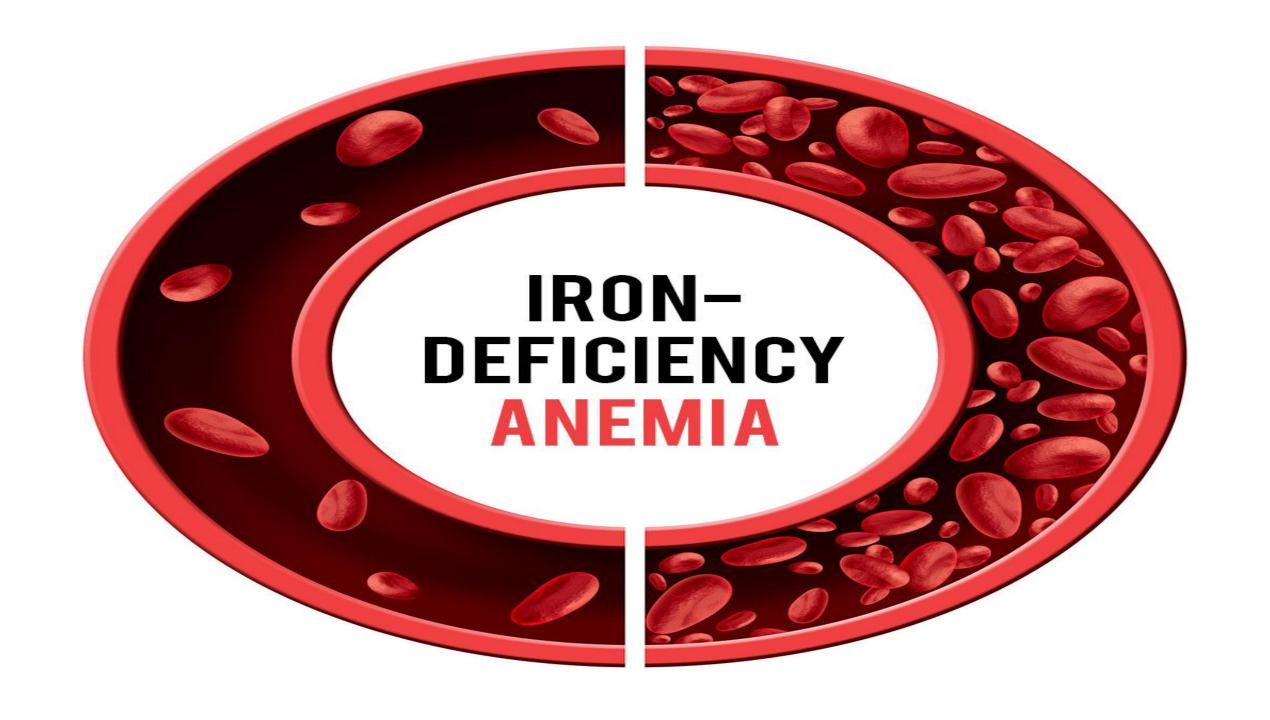


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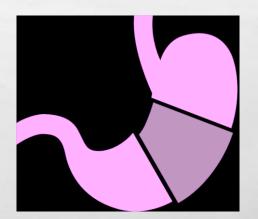
deficiency

deficiency



Causes:

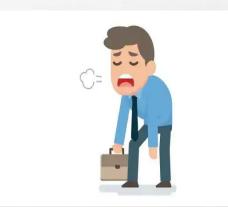
- 1- low iron intake.
- 2- blood loss.
- 3- gastrectomy.
- 4- malabsorption.





Signs of iron deficiency anemia:

- Fatigue.
- Muscle weakness.
- · Pale color.
- · Decreased resistance of infection.
- Spoon nails .
- Angular stomatitis.







Who are the people at risk:

- 1- Women of childbearing age.
- 2- Pregnant woman.
- 3- People with poor diets.
- 4- People who donate blood frequently.
- 5- Infant and children.
- 6- Vegetarian.







How its diagnosed?

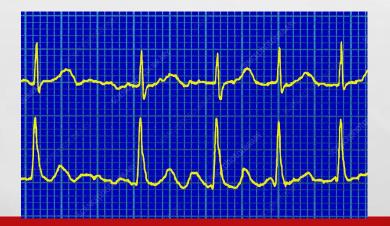
A doctor can diagnose anemia with blood test.



Health complication of iron deficiency anemia:

- 1- Rapid or irregular heart beat.
- 2- Pregnancy complication.
- 3- Delayed growth in infant and children.







Treatment options:

1- Iron supplements.

2- Diet include the following food can help treat or prevent iron

deficiency:

red meat, dark green leafy vegetable, dried fruits, nuts, egg, beans, grains group.



IRON RICH FOOD:



SHRIMP

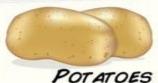












WITH SKIN

















Dietary reference intake:

Women(19-50 years): 18mg/day.

Men (19-50) years : 8mg/day.

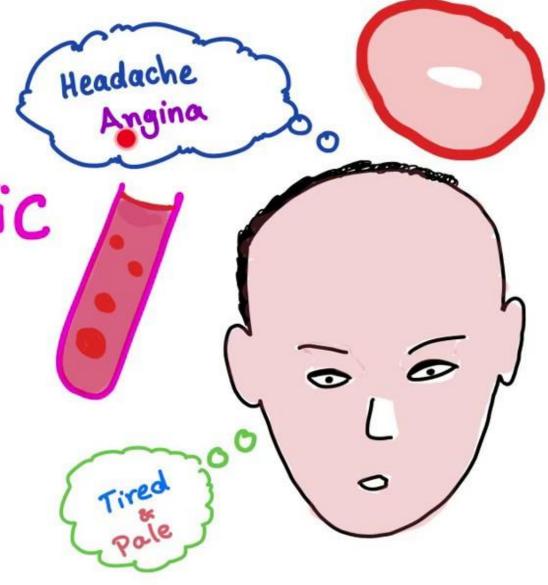
Pregnancy: high iron intake 27 mg/day.

During lactation: decreased to 9mg/day.

1 MCV

Non-megaloblastic
Macrocytic

Anemia



Macrocytic anemia:

vitamin B12 deficiency or folate deficiency anemia.

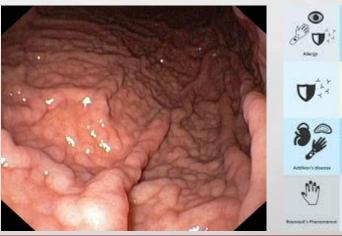
1. vitamin B 12 deficiency anemia is a condition in which your body does not have enough healthy red blood cell due to a lack of vitamin B12 ,This vitamin is needed to make red blood cell.

Causes:

- 1. Lack of intrinsic factor.
- 2. Surgery that removes or bypass the end of the small intestine.

Inability to make intrinsic factor may be caused by several things:

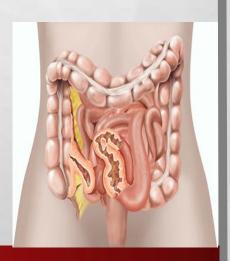
- Chronic gastritis.
- Surgery to remove all or parts of the stomach (gastrectomy).
- Autoimmune condition.
- Aging





Who is at risk for vitamin B12 deficiency anemia:

- 1. Family history of the disease.
- 2. Cohn's disease.
- 3. HIV.
- 4. Some medicine.
- 5. Strict vegetarian diets.
- 6. Being an older adults.
- 7. Auto immune disease including Type1 DM.
- 8. Having part or all of your stomach or intestine removed.



Signs of deficiency:

- Weak muscle.
- Numb or tingling feeling in hands and feet's.
- Trouble walking.
- Degreased appetite.
- Irritability.
- Smooth and tender toung.
- Fast heart rate.
- Nausea.
- Weight loss.
- Diarrhea.

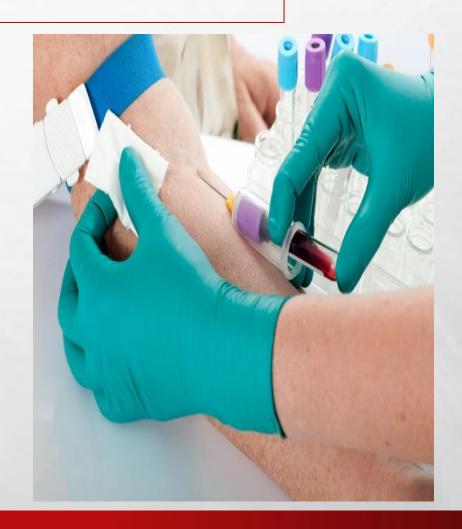






How its diagnosed?

A doctor can diagnosed anemia with routine blood test.



Treatment options:

Diet rich in B12 and folic acid.

Sources:

Orange and Orange juice, spinach, liver, rice, soybeans, green leafy vegetable, beans, peanuts, broccoli, lentils, peas, Asparagus, meat, egg, milk, shellfish, fortified

cereals.

Supplementation



Macrocytic anemia:

2. Folic acid deficiency:

A nutritional megaloblastic anemia ocurre in simple folate deficiencies. Because folate are needs high during period of rapid growth, folate deficiency anemia is most likely to ocurre in pregnant women, growing infant and young children.

Adolescent girl who severely limit there food intake are also at risk.

Dietary reference intake of folic acid:

Adult: 400 mg / day.

Pregnancy: 600 mg / day.

Women of reproductive age: 155- 165 mg / day.

Dietary reference intake of B12:

The amount of required vitamin B12 is minute, the RDA is 2.4mcg for both younger and older adults.