

Anemia, Types and treatment

فقر الدم أنواعه و علاجه

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Anaemia: reduction of O₂ carrying capacity of the blood with inadequate O₂ supply to tissue.

Anemia (uh-NEE-me-uh) is a condition in which your blood has a lower than normal number of red blood cells.

Anemia also can occur if your red blood cells don't contain enough hemoglobin (HEE-muh-glow-bin). Hemoglobin is an iron-rich protein that gives blood its red color. This protein helps red blood cells carry oxygen from the lungs to the rest of the body. **(1)**

Classifications of Anemia

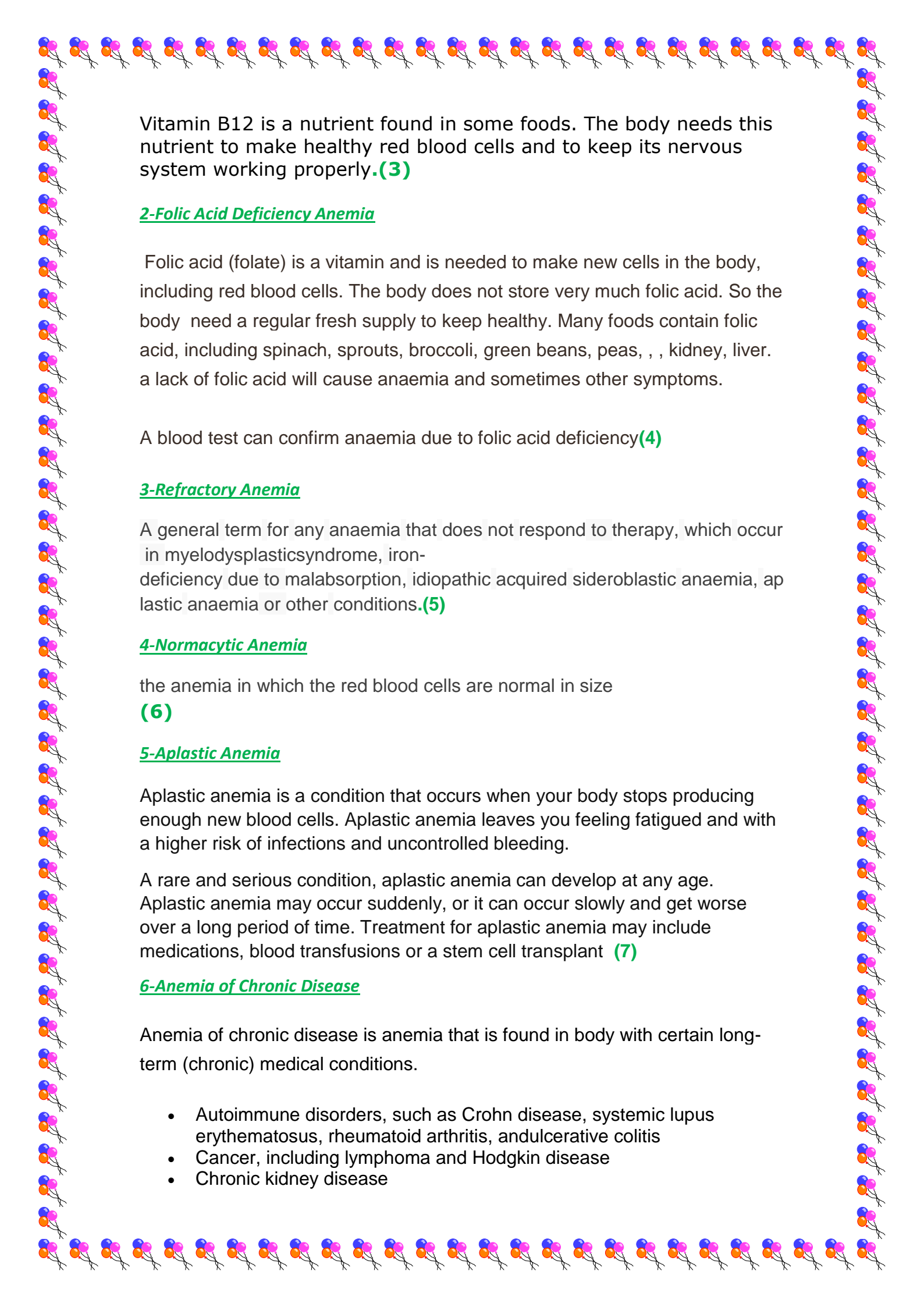
I-Morphological clacification

II-etiological clacification

Types of anemia

1-Pernicious Anemia

is a condition in which the body can't make enough healthy red blood cells because it doesn't have enough vitamin B12.



Vitamin B12 is a nutrient found in some foods. The body needs this nutrient to make healthy red blood cells and to keep its nervous system working properly. **(3)**

2-Folic Acid Deficiency Anemia

Folic acid (folate) is a vitamin and is needed to make new cells in the body, including red blood cells. The body does not store very much folic acid. So the body need a regular fresh supply to keep healthy. Many foods contain folic acid, including spinach, sprouts, broccoli, green beans, peas, , , kidney, liver. a lack of folic acid will cause anaemia and sometimes other symptoms.

A blood test can confirm anaemia due to folic acid deficiency **(4)**

3-Refractory Anemia

A general term for any anaemia that does not respond to therapy, which occur in myelodysplasticsyndrome, iron-deficiency due to malabsorption, idiopathic acquired sideroblastic anaemia, ap lastic anaemia or other conditions. **(5)**

4-Normacytic Anemia

the anemia in which the red blood cells are normal in size **(6)**

5-Aplastic Anemia

Aplastic anemia is a condition that occurs when your body stops producing enough new blood cells. Aplastic anemia leaves you feeling fatigued and with a higher risk of infections and uncontrolled bleeding.

A rare and serious condition, aplastic anemia can develop at any age. Aplastic anemia may occur suddenly, or it can occur slowly and get worse over a long period of time. Treatment for aplastic anemia may include medications, blood transfusions or a stem cell transplant **(7)**

6-Anemia of Chronic Disease

Anemia of chronic disease is anemia that is found in body with certain long-term (chronic) medical conditions.

- Autoimmune disorders, such as Crohn disease, systemic lupus erythematosus, rheumatoid arthritis, and ulcerative colitis
- Cancer, including lymphoma and Hodgkin disease
- Chronic kidney disease

- Long-term infections, such as bacterial endocarditis, osteomyelitis (bone infection), HIV/AIDS, hepatitis B or hepatitis C (8)

7-Inherited Anemia

This type is passed from the parent to fetus through genes and is characterized by abnormal red cells called spherocytes that are thin and fragile. These cells cannot change their shape to pass through certain organs so they stay in the spleen for a longer period and are destroyed (9)

8-Hemolytic Anemia

Hemolytic anemia is a condition in which red blood cells are destroyed and removed from the bloodstream before their normal lifespan is over.

Red blood cells are disc-shaped and look like doughnuts without holes in the center. These cells carry oxygen to your body. They also remove carbon dioxide (a waste product) from your body.

- When blood cells die, the body's bone marrow makes more blood cells to replace them. However, in hemolytic anemia, the bone marrow can't make red blood cells fast enough to meet the body's needs.
- Hemolytic anemia can lead to many health problems, such as fatigue (tiredness), pain, irregular heartbeats called arrhythmias, an enlarged heart, and heart failure. (10)

9-sickle cell anemia

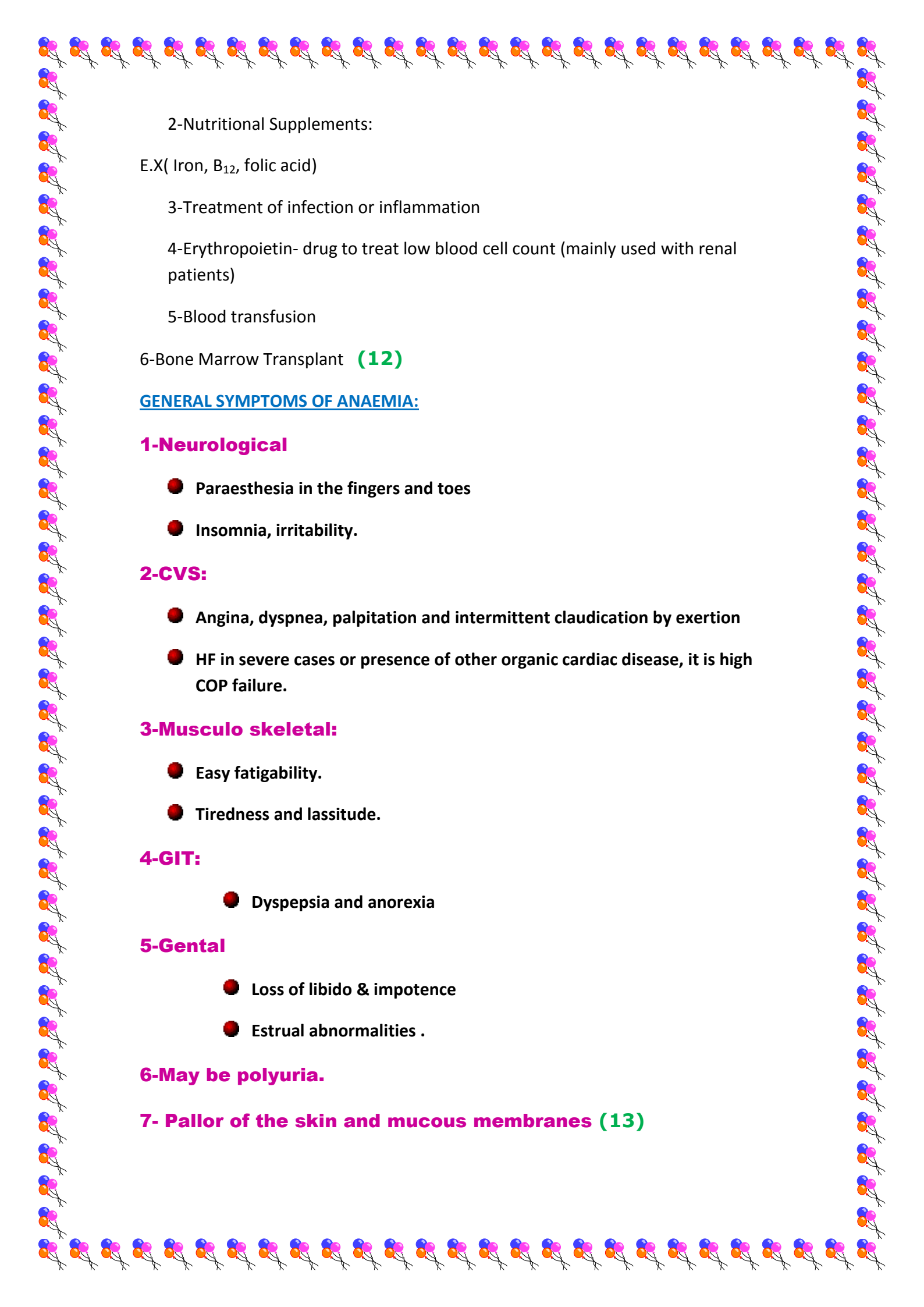
Sickle cell anemia is an inherited form of anemia — a condition in which there aren't enough healthy red blood cells to carry adequate oxygen throughout your body.

Normally, your red blood cells are flexible and round, moving easily through your blood vessels. In sickle cell anemia, the red blood cells become rigid and sticky and are shaped like sickles or crescent moons. These irregularly shaped cells can get stuck in small blood vessels, which can slow or block blood flow and oxygen to parts of the body.

There's no cure for most people with sickle cell anemia. However, treatments can relieve pain and help prevent further problems associated with sickle cell anemia (11)

General Treatment for Anemia

1-Diet



2-Nutritional Supplements:

E.X(Iron, B₁₂, folic acid)

3-Treatment of infection or inflammation

4-Erythropoietin- drug to treat low blood cell count (mainly used with renal patients)

5-Blood transfusion

6-Bone Marrow Transplant **(12)**

GENERAL SYMPTOMS OF ANAEMIA:

1-Neurological

- Paraesthesia in the fingers and toes
- Insomnia, irritability.

2-CVS:

- Angina, dyspnea, palpitation and intermittent claudication by exertion
- HF in severe cases or presence of other organic cardiac disease, it is high COP failure.

3-Musculo skeletal:

- Easy fatigability.
- Tiredness and lassitude.

4-GIT:

- Dyspepsia and anorexia

5-Gental

- Loss of libido & impotence
- Estrual abnormalities .

6-May be polyuria.

7- Pallor of the skin and mucous membranes (13)