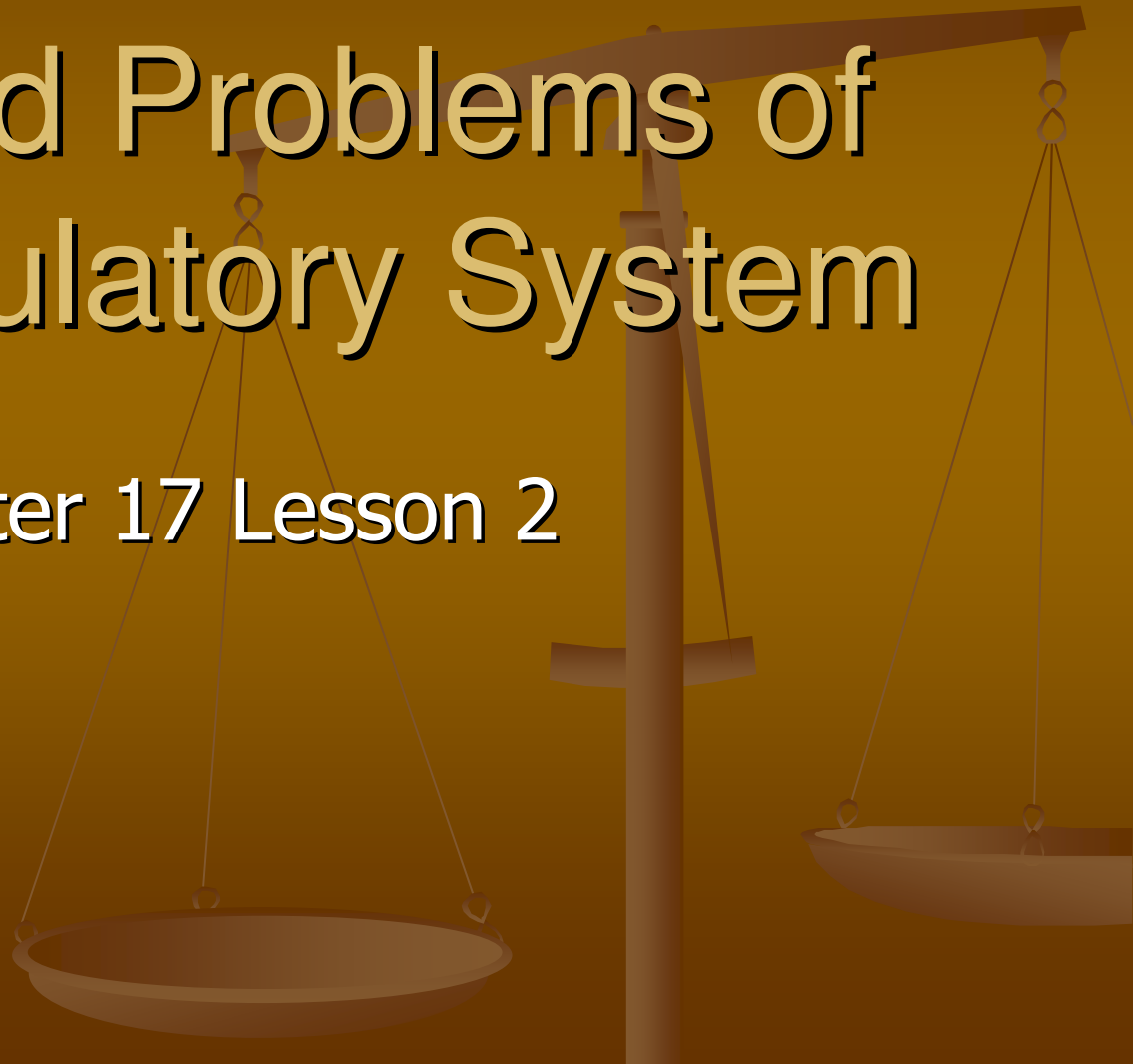
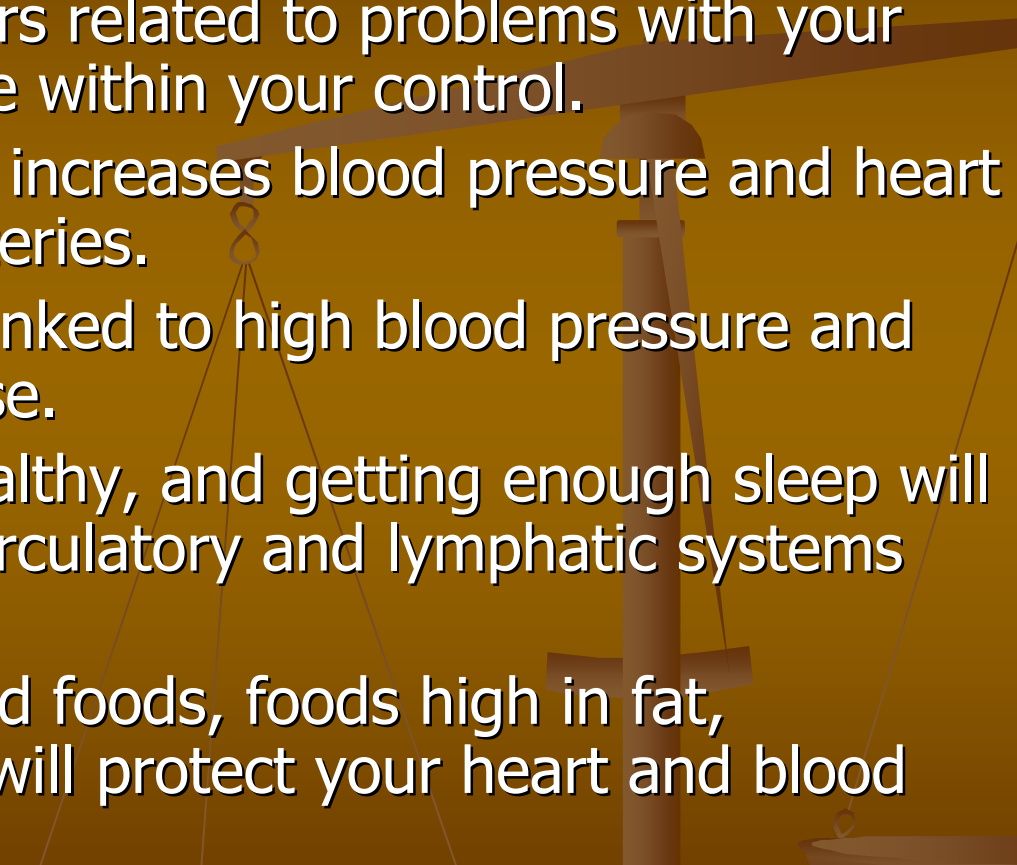


Care and Problems of The Circulatory System

Chapter 17 Lesson 2



Care of the Circulatory and Lymphatic Systems

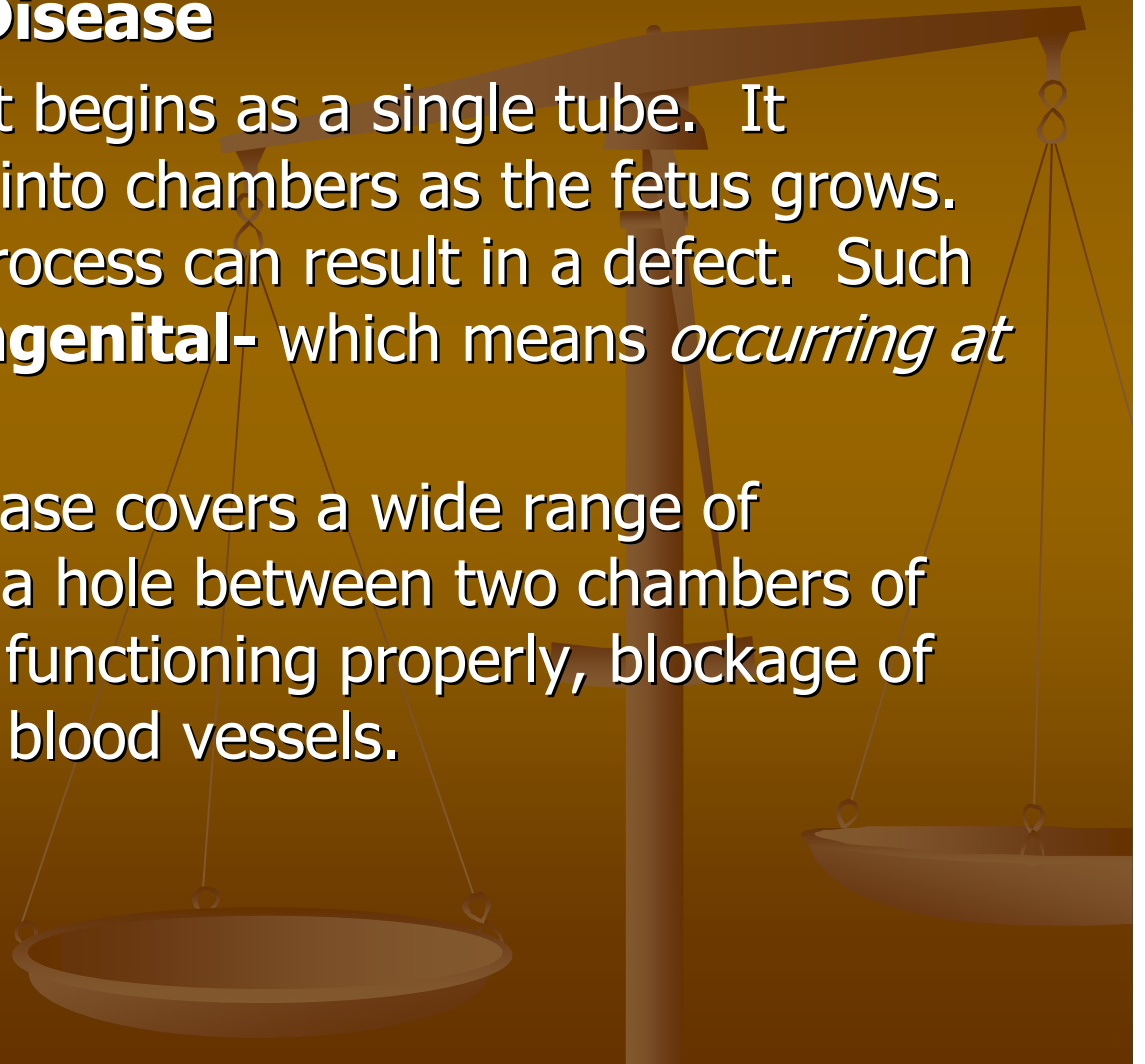
- Most of the risk factors related to problems with your circulatory system are within your control.
 - Nicotine in cigarettes increases blood pressure and heart rate by narrowing arteries.
 - Being overweight is linked to high blood pressure and coronary heart disease.
 - Exercising, eating healthy, and getting enough sleep will help keep both the circulatory and lymphatic systems healthy.
 - Limiting intake of fried foods, foods high in fat, cholesterol, and salt will protect your heart and blood vessels.
- 

Blood Pressure

- Blood pressure is the force of blood in the main arteries. It rises and falls as the heart muscles of your body cope with varying demands, including stress, exercise, and sleep.
- **Systolic Pressure-** *arterial pressure is at its greatest.* This takes place when the ventricles contract.
- (Usually between 110 and 140)
- **Diastolic Pressure-** *arterial pressure is at its lowest.* This takes place as blood flows freely through the open arteries following Systolic pressure. (Usually between 70 and 90)

Circulatory System Problems

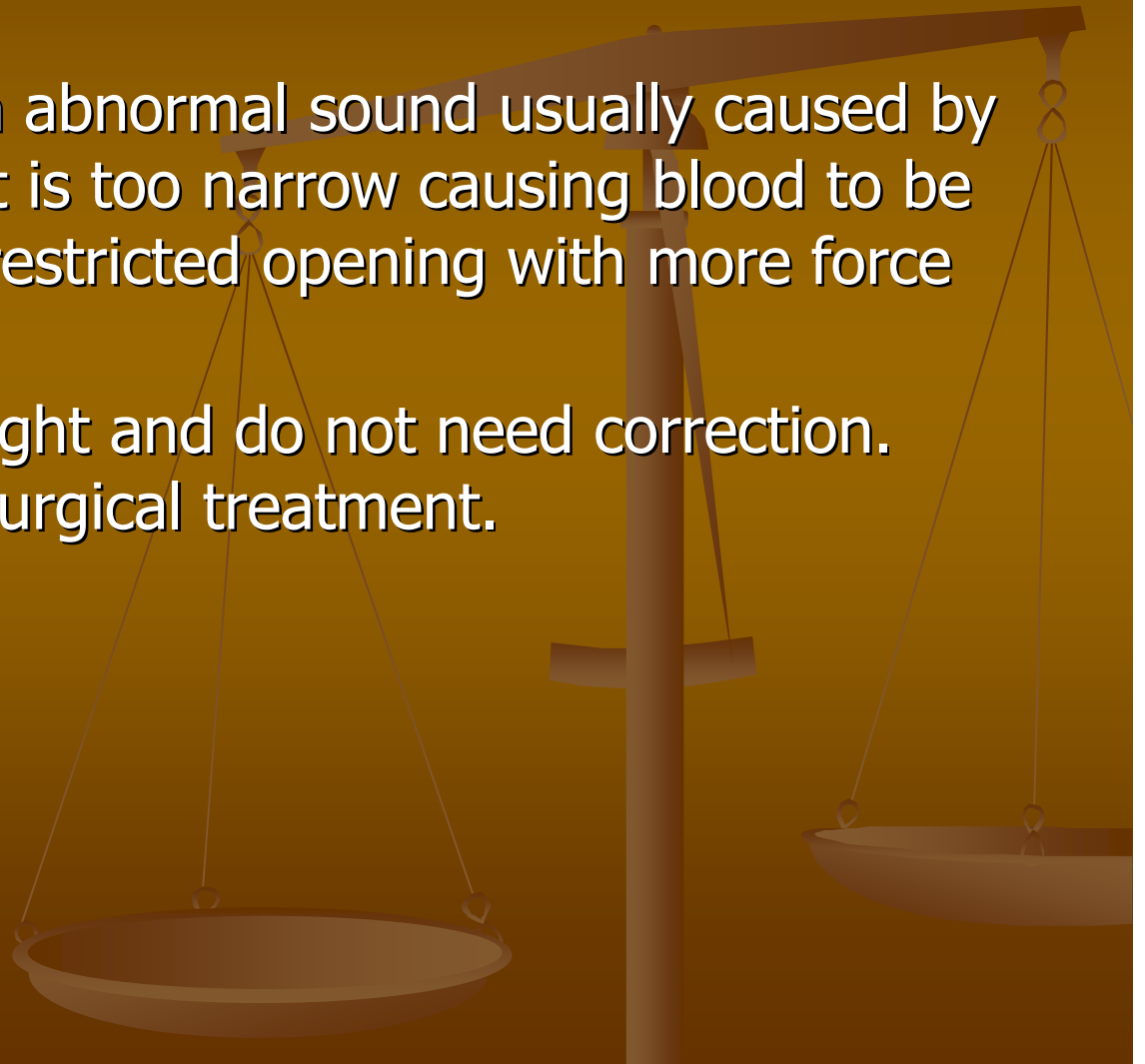
- **Congenital Heart Disease**
- Before birth the heart begins as a single tube. It enlarges and divides into chambers as the fetus grows. A disruption in this process can result in a defect. Such a defect is called **congenital**- which means *occurring at birth*.
- Congenital heart disease covers a wide range of conditions including: a hole between two chambers of the heart, valves not functioning properly, blockage of blood flow, defective blood vessels.



Problems cont.

- **Heart Murmur**

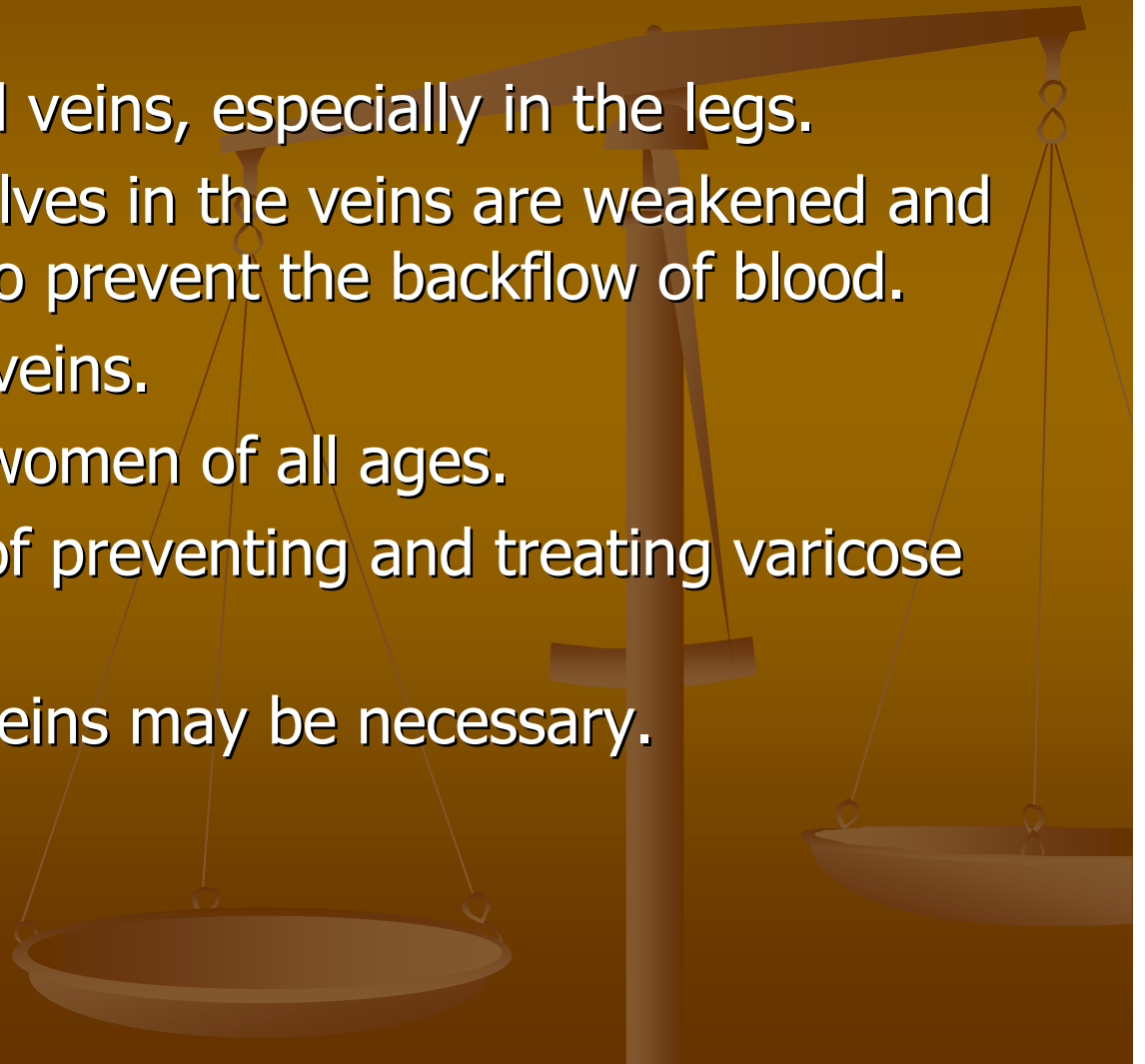
- A heart murmur is an abnormal sound usually caused by a defective valve that is too narrow causing blood to be pushed through the restricted opening with more force than normal.
- Most murmurs are slight and do not need correction. Others may require surgical treatment.



Problems cont.

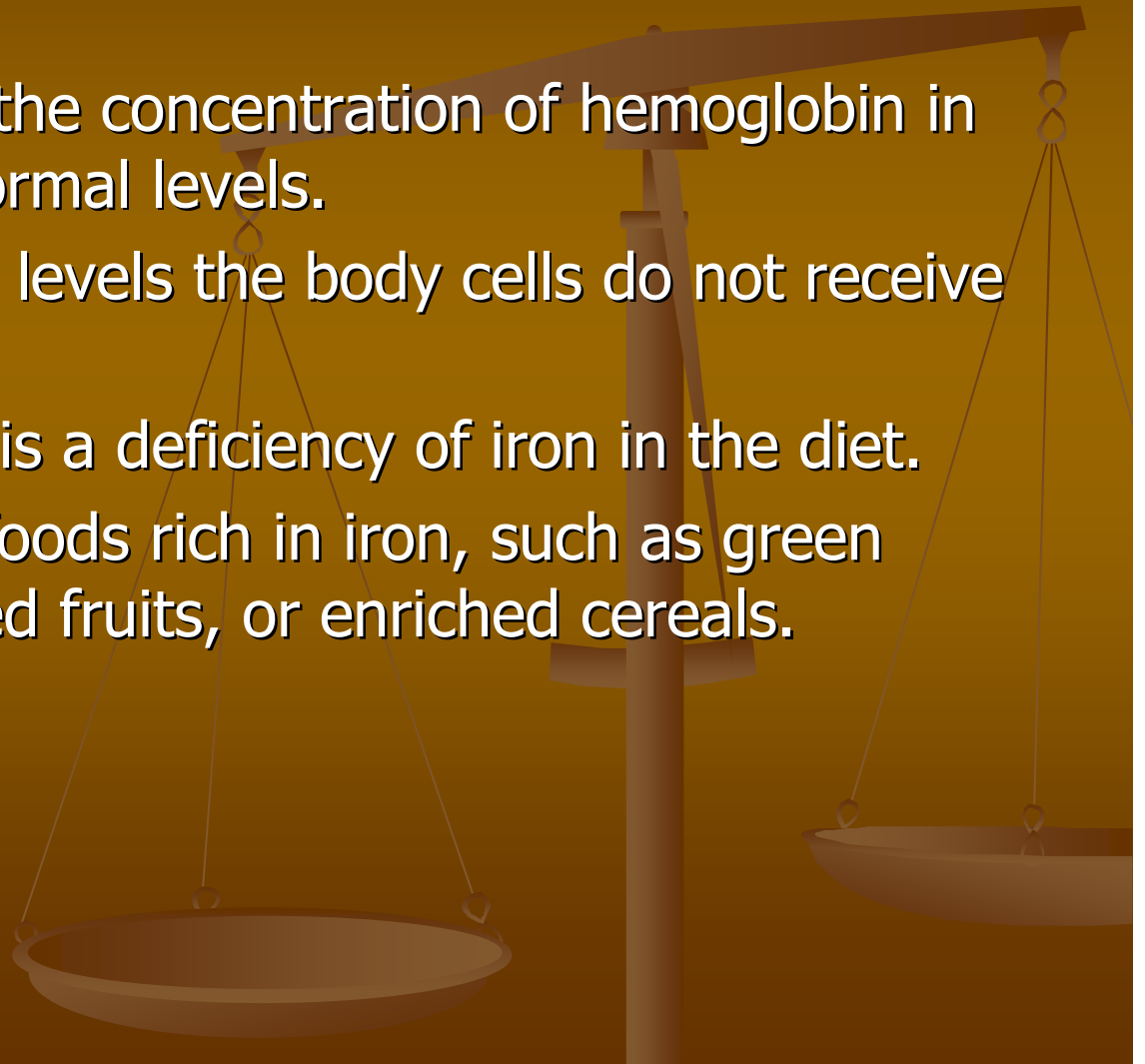
■ **Varicose Veins**

- Swollen and enlarged veins, especially in the legs.
- Develop when the valves in the veins are weakened and cannot close tightly to prevent the backflow of blood.
- Blood collects in the veins.
- Can affect men and women of all ages.
- Exercise is a means of preventing and treating varicose veins.
- Surgical removal of veins may be necessary.

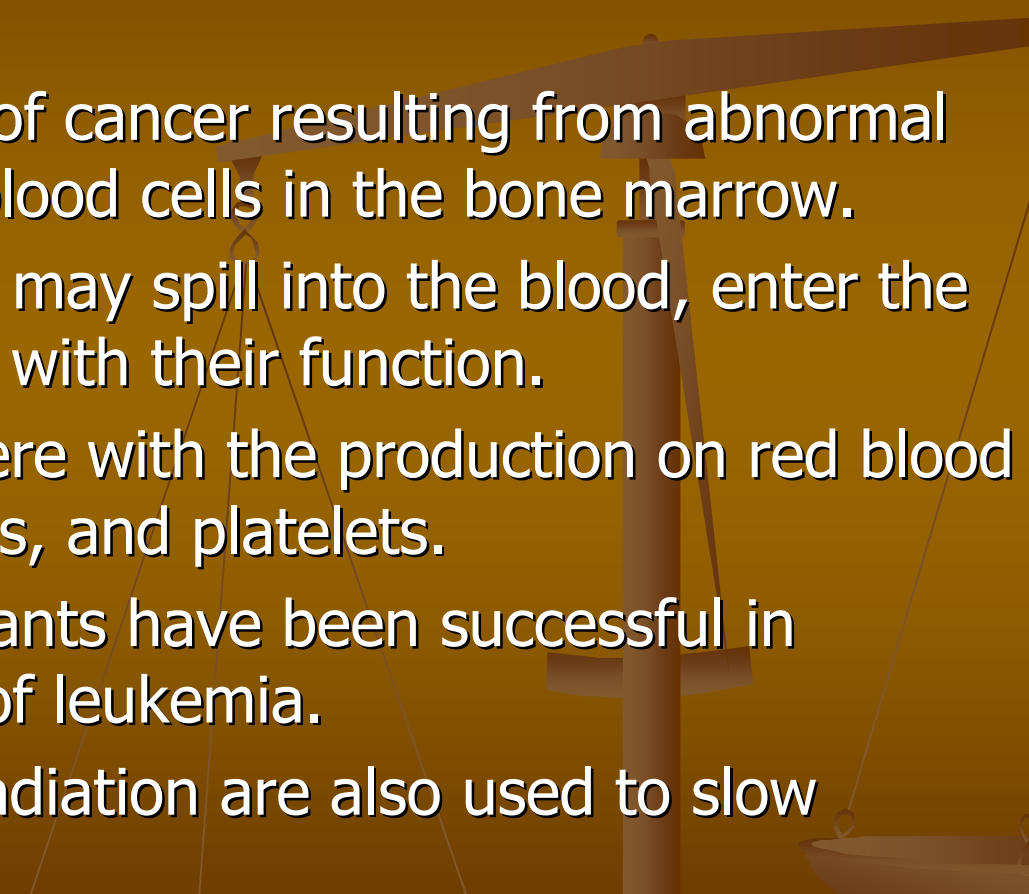


Problems cont.

- **Anemia**
- A condition in which the concentration of hemoglobin in the blood is below normal levels.
- With low hemoglobin levels the body cells do not receive enough oxygen.
- Most common cause is a deficiency of iron in the diet.
- Corrected by eating foods rich in iron, such as green leafy vegetables, dried fruits, or enriched cereals.

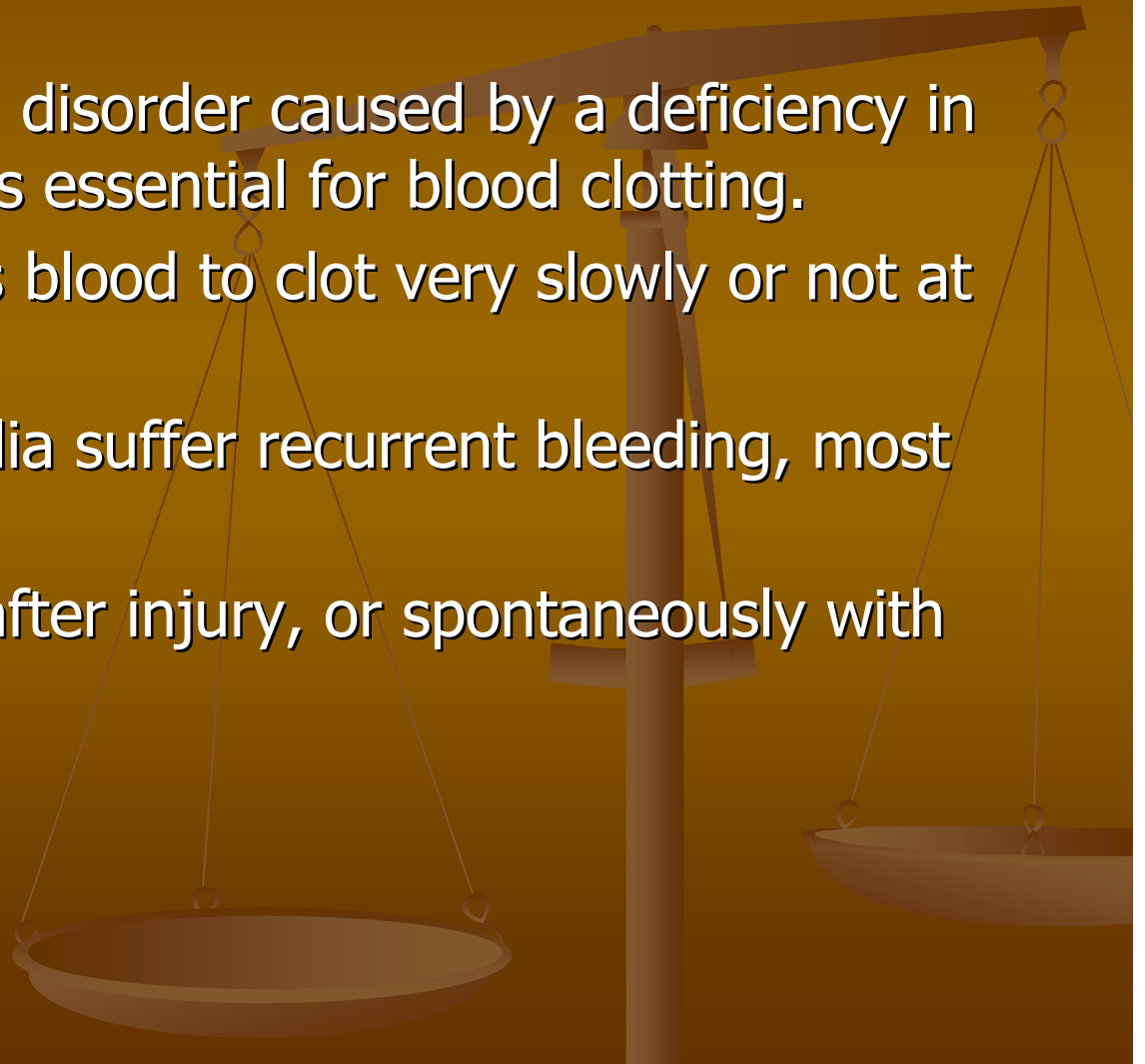


Problems cont.

- **Leukemia**
 - Any of several types of cancer resulting from abnormal production of white blood cells in the bone marrow.
 - These abnormal cells may spill into the blood, enter the organs, and interfere with their function.
 - Abnormal cells interfere with the production on red blood cells, white blood cells, and platelets.
 - Bone marrow transplants have been successful in treating some types of leukemia.
 - Chemotherapy and radiation are also used to slow downs the disease.
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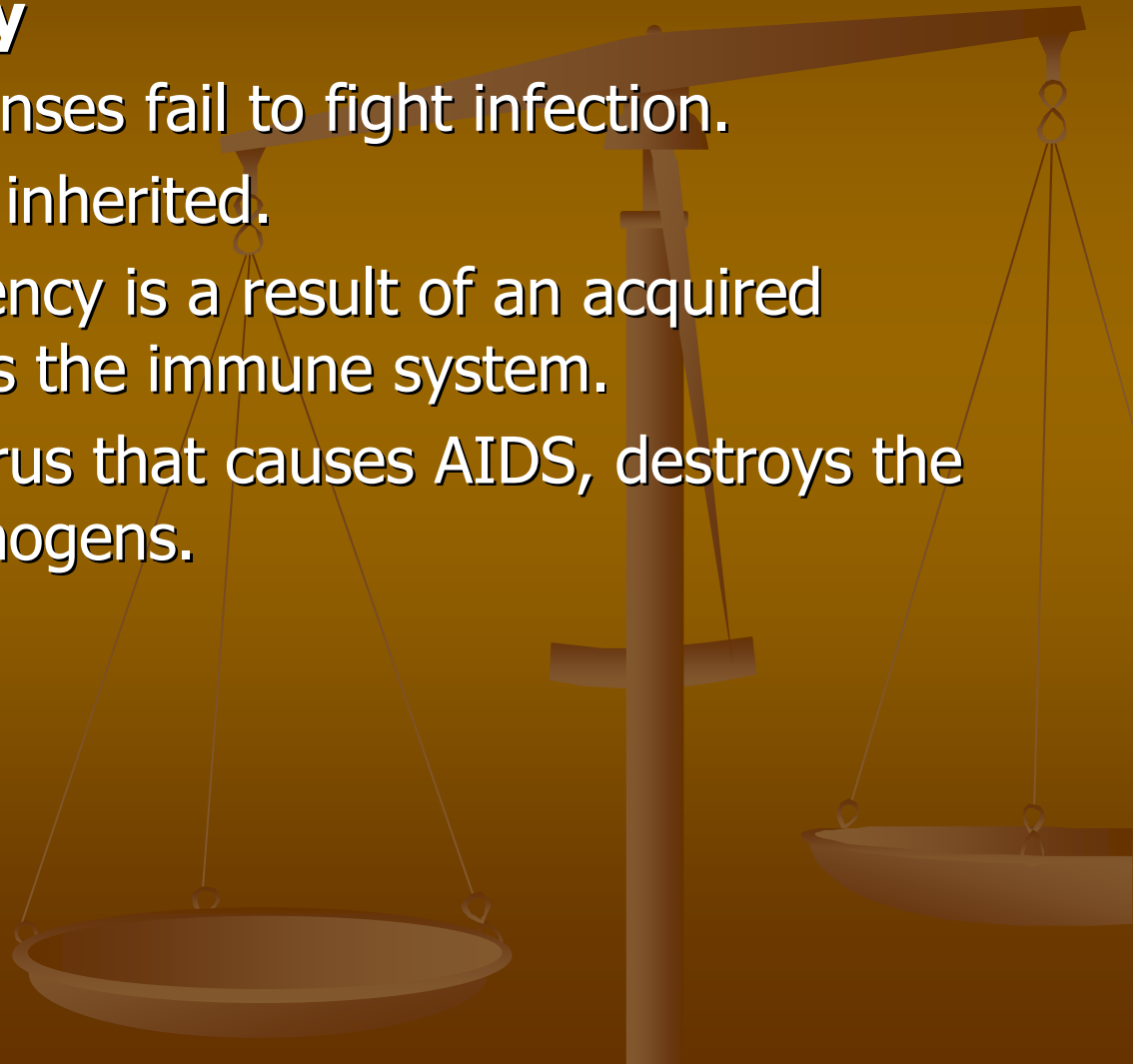
Problems cont.

- **Hemophilia**
- An inherited bleeding disorder caused by a deficiency in a blood protein that is essential for blood clotting.
- This condition causes blood to clot very slowly or not at all.
- People with hemophilia suffer recurrent bleeding, most often in their joints.
- Bleeding may occur after injury, or spontaneously with no apparent cause.



Lymphatic System Problems

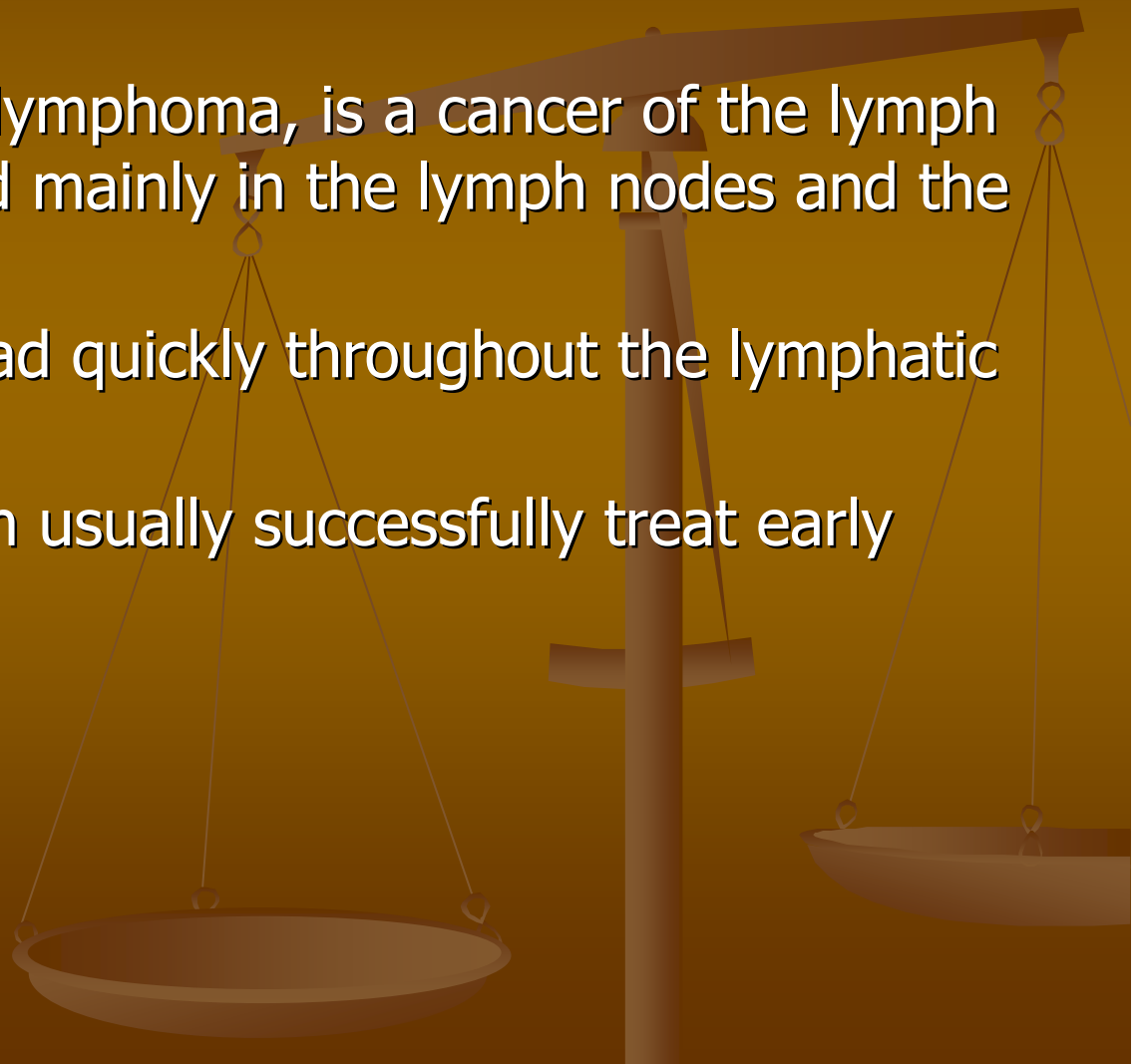
- **Immune Deficiency**
- Immune system defenses fail to fight infection.
- Can be congenital or inherited.
- Often immune deficiency is a result of an acquired disease that damages the immune system.
- Example: HIV, the virus that causes AIDS, destroys the T-cells that fight pathogens.



Lymphatic Problems cont.

- **Hodgkin's Disease**

- Known as Hodgkin's lymphoma, is a cancer of the lymph tissue, which is found mainly in the lymph nodes and the spleen.
- This cancer can spread quickly throughout the lymphatic system.
- Radiation therapy can usually successfully treat early stages.



Lymphatic Problems cont.

- **Tonsillitis**
 - Tonsils become infected by organisms they are fighting.
 - Occurs mainly in childhood but can occur during teenage years.
 - Tonsils become inflamed and tender with symptoms including: sore throat, and fever.
 - May be treated with antibiotics.
 - Once common, surgical removal of tonsils is rarely done today.
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