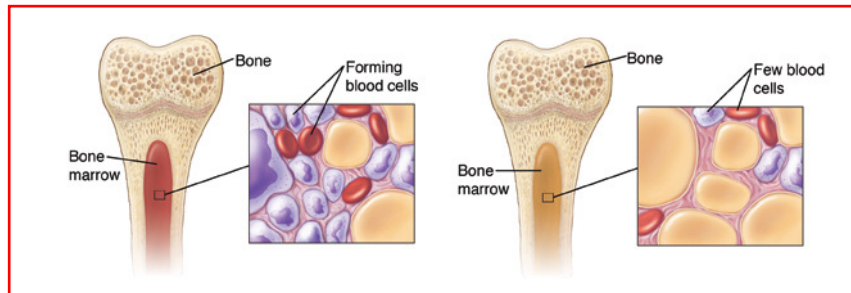


## When Your Child Has Aplastic Anemia

**Aplastic anemia** occurs when your child's bone marrow does not make enough healthy blood cells. It is a serious condition that can be life threatening without treatment. Your child's healthcare provider can discuss treatment options with you.



## What Are Blood Cells?

- Blood cells are made in the bone marrow. The bone marrow is the soft, spongy part inside bones. New blood cells are made daily. They help replace the cells that die naturally or that are lost from your body through injury or illness.
- There are three types of blood cells: red blood cells (RBCs), white blood cells (WBCs), and platelets. RBCs contain a protein called hemoglobin, which allows them to carry oxygen throughout the body. WBCs help fight infections and illnesses. Platelets help with the clotting process to control bleeding from cuts or bruises. Each type of blood cell is needed to maintain overall health.

## What Causes Aplastic Anemia?

Aplastic anemia can occur with no known cause. Exposure to radiation or certain toxic chemicals is thought to make it more likely. A viral infection, such as hepatitis, also makes it more likely. And, certain autoimmune disorders or genetic conditions can sometimes trigger the condition.

## What Are the Symptoms of Aplastic Anemia?

Some children have no symptoms. If symptoms are present, they may include:

- Pale skin
- Crankiness
- Weakness
- Fatigue
- Shortness of breath
- Trouble doing normal amounts of physical activity (exercise intolerance)
- Rapid heartbeat
- Dizziness or fainting
- Fever
- Recurrent or severe infections
- Excessive bruising or bleeding

## How Is Aplastic Anemia Diagnosed?

Your child will likely see a **pediatric hematologist** for diagnosis and treatment. This is a doctor who specializes in blood disorders (hematology). The doctor will examine your child and ask about your child's symptoms, medications, diet, and family and health history. Tests may be done. Most of the tests are performed by taking a blood sample from a vein in the arm or from a finger or heel. Tests may include:

- A **complete blood cell count (CBC)** to measure the amounts of types of cells in the blood.
- A **blood smear** to check the size and shape of blood cells. A drop of blood is looked at with a microscope. A stain makes parts of the blood cells easier to see.
- A **reticulocyte count** to measure the amount of new RBCs being made by the bone marrow.
- **Bone marrow aspiration and biopsy** check for problems with the production of blood cells. With a bone marrow aspiration, a needle is inserted into a bone to collect a sample of the bone marrow fluid and cells. With a bone marrow biopsy, a needle is inserted into a bone to collect a small sample of bone marrow tissue. The tests can be done separately. But, they are often done together.

## How Is Aplastic Anemia Treated?

Treatment depends on the severity of your child's symptoms. In mild to moderate cases, your child will likely need regular visits with the doctor for routine checkups and blood tests. In severe cases, hospital care is needed.

Treatment for aplastic anemia can include:

- **Blood transfusions.** These are needed when your child's blood cell count is too low. Transfusions of RBCs and platelets are common. It is rare for WBCs to be transfused.
- **Immunosuppressants.** In some cases, a problem with the immune system is responsible for destroying (or injuring) the blood cells. Certain medications are given to decrease the activity of the immune system.
- **Other medications.** These can include growth factors or antibiotics. Growth factors help the body make more blood cells. Antibiotics help fight infections.
- **Bone marrow transplant.** In rare cases, this treatment is done if the body can't make enough healthy blood cells. It replaces diseased bone marrow cells with healthy cells from a matched donor.

## What Are the Long-term Concerns?

- Children with mild to moderate aplastic anemia can learn to manage their condition, so they can be as active and independent as possible. Discuss with your child's doctor how to help your child prevent possible complications. This includes topics such as physical activity, diet, and how to reduce the risk of bleeding or infections.
- Children with severe aplastic anemia will need ongoing treatment and supportive care. Work closely with your child's doctor to learn how to help your child.

## Coping with Your Child's Condition

A positive outlook helps while supporting your child. Consider counseling, which can help you and your child deal with any worries or concerns. And seek help from family, friends, community resources, or support groups. Many hospitals also have child life programs, which are designed to help children cope with their condition. A hospital social worker can also answer questions and refer you to other supportive services, if needed. The more you learn about your child's condition and its treatments, the more in control you may feel. For more information about aplastic anemia, start with the following resources:

- **Aplastic Anemia & MDS International Foundation** [www.aamds.org/aplastic](http://www.aamds.org/aplastic)
- **National Library of Medicine and the National Institute of Health**  
[www.nlm.nih.gov/medlineplus/ency/article/000554.htm](http://www.nlm.nih.gov/medlineplus/ency/article/000554.htm)