



The Emily Center

About Blood Cells

Procedure/Treatment/Home Care

Si usted desea esta información en español,
por favor pídasela a su enfermero o doctor.

#736

Name of Child: _____ Date: _____

About Blood Cells

Blood is a mixture of fluid (also called **plasma**) and many types of cells (**red blood cells, white blood cells, and platelets**). The liquid plasma is pale yellow, and the solid cells are red. All the cells in the blood are made in the bone marrow.

A blood test called a **complete blood count** can give your child's health care team much information. It may help them learn what illness your child has, or how sick your child is. We will draw your child's blood regularly during diagnosis and treatment to watch these changes. You will get a copy of the results of blood tests, and you can keep them in this notebook.

Here are the different types of blood cells, what they do, and what the numbers mean:

Platelets

What they do

Platelets make the blood clot.

What the numbers mean

The number of platelets in the blood is called the platelet count.

Normal platelet count: more than 150,000

Low platelet count: below 20,000

If the platelet count is too low, bleeding is easier. You may see:

- easy bruising (bruises are bleeding under the skin)
- bleeding from the gums, nose, rectum, or in the stool or urine, or other parts of the body
- small red freckle-like marks (petechiae or small spots of bleeding under the skin)

Low platelets are also called **thrombocytopenia**.

White Blood Cells or WBCs

What they do

White blood cells kill germs and fight infection. There are many different kinds of white blood cells. Each fights a different type of infection. **Neutrophils** help the body fight bacteria. **Lymphocytes** help the body fight viruses.

What the numbers mean

The number of white blood cells in the blood is called the **white blood cell count**, or **WBC**. To find out how well your child can fight an infection from bacteria, we calculate the **ANC** or **absolute neutrophil count**.

Normal ANC: over 1500

Low ANC: below 500

A low neutrophil count is also called **neutropenia**. A child with low neutrophils is called **neutropenic**.

If the white blood cell count is too low, children can not fight infection very well.

When your child's ANC is low, watch for signs of infection.

- fever higher than 101.5 F or 38.5 C
- chills, shaking, sweating
- sores or blisters on the skin or mouth
- loose stools, stomach pain
- cough

- headache
- sore throat
- earache
- pus or fluid from wound
- other signs of infection
- the child looks sick to you

If you think your child may have an infection, call your nurse or doctor right away.

Here are some ways to help prevent infection if your WBCs are low:

- Keep your child clean.
 - Your child should wash his or her hands after using the bathroom, before eating, and after playing outside.
 - Your child should have a bath or shower every day.
 - After using the toilet, your child should wipe from front to back.
 - Clean teeth and mouth with a soft toothbrush in the morning, after meals, and at bedtime. If your doctor has prescribed any medicines for mouth care, use them.
- Keep away from germs.
 - Your child should not go to places where there are crowds or large groups of people, like malls and movie theaters.
 - Your child should not be around anyone who has a cold, fever, or cough.

Red Blood Cells or RBCs

What they do

Red blood cells or RBCs carry oxygen from the lungs to all parts of the body. The part of the red blood cell that carries the oxygen is made of a protein called **hemoglobin**.

What the numbers mean

Hematocrit is a percentage that tells how much of the blood is made up of red blood cells. **Hemoglobin** tells us how much of the oxygen-carrying protein is in your child's blood.

Normal

hemoglobin 11 – 14

hematocrit over 35%

Low, for many children

hemoglobin below 8

hematocrit below 24%

If the hemoglobin or hematocrit counts are too low, less oxygen is carried to the body cells. A person with low red blood cell counts is said to have anemia.

A child with low hemoglobin or hematocrit may:

- be very tired
- have pale skin
- feel dizzy
- have a headache
- be irritable
- feels cold, and wants to cover up

A child with these symptoms should play quietly and rest often. If you think your child may have a low hemoglobin or hematocrit, call your nurse or doctor.

Now that you've read this:

- Tell your nurse or doctor three types of blood cells and what they do. (Check when done.)
- Tell your nurse or doctor what you might see if your child's blood counts were low. (Check when done.)
- Tell your nurse or doctor what you would do if your child had a low ANC. (Check when done.)



If you have any questions or concerns,
 call your child's doctor or call _____

If you want to know more about child health and illness,
visit our library at The Emily Center at Phoenix Children's Hospital
1919 East Thomas Road
Phoenix, AZ 85016
602-546-1400
www.phoenixchildrenshospital.com

Disclaimer

The information provided at this site is intended to be general information, and is provided for educational purposes only. It is not intended to take the place of examination, treatment, or consultation with a physician. Phoenix Children's Hospital urges you to contact your physician with any questions you may have about a medical condition.

Tuesday, October 31, 2006 • DRAFT in family review
#736 • Written by Cheryl Stoneberger, RN



Name of Health Care Provider: _____ Number: 736
For office use: Date returned: _____ db nb

Family Review of Handout

Health care providers: Please teach families with this handout.

Families: Please let us know what you think of this handout.

Would you say this handout is hard to read? Yes No

easy to read? Yes No

Please circle the parts of the handout that were hard to understand.

Would you say this handout is interesting to read? Yes No

Why or why not?

Would you do anything differently after reading
this handout? Yes No

If yes, what?

After reading this handout, do you have any
questions about the subject? Yes No

If yes, what?

Is there anything you don't like about the drawings?

Yes No

If yes, what?

What changes would you make in this handout to make it better or easier to understand?

Please return your review of this handout to your nurse or doctor or send it to the address below.

Fran London, MS, RN
Health Education Specialist
The Emily Center
Phoenix Children's Hospital
1919 East Thomas Road
Phoenix, AZ 85016-7710

602-546-1395

flondon@phoenixchildrens.com

Thank you for helping us!