

Low Platelet Count

What is happening

Platelets make the blood clot. When platelets are low, bleeding is easier. Low platelets are also called **thrombocytopenia**. The number of platelets in the blood is called the **platelet count**.

Platelet counts can get too low when:

- cancer cells crowd out normal cells, or
- chemotherapy medicines destroy cells in the bone marrow that would have become platelets

What 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)

How it is treated



If you see signs of low platelet counts, call your nurse or doctor. Your nurse or doctor will tell you what you can do to help your child with low counts. If necessary, your child may need a transfusion of platelets.

For more information, ask your nurse or doctor for the handouts:

About Blood Cells (#736)

Blood Transfusions (#99)

Low White Blood Cell Count

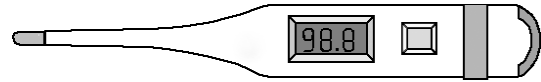
What is happening

White blood cells (also called **neutrophils**) kill germs and fight infection. When white blood cells are low, children have a higher risk to get an infection. Low white blood cell counts are also called **neutropenia**. The number of white blood cells in the blood is called the **white blood cell count**, or **WBC**. Chemotherapy medicines often lower the white blood cell count. The bone marrow may not be able to make

normal cells at the normal rate, white blood cells may die, or the cancer cells may crowd out the normal blood cells.

What you may see

- fever higher than 101.5 F or 38.5 C
- chills, shaking, sweating
- pus or fluid from wound
- sores or blisters on the skin or mouth
- loose stools, stomach pain
- cough
- headache
- sore throat
- earache
- other signs of infection
- the child looks sick to you



To take your child's temperature, place a digital thermometer under your child's tongue or under the arm.

To take your child's temperature, place a digital thermometer under your child's tongue or under the arm. Keep it there until it beeps. **Do not take rectal temperatures.** This could cause bleeding or infection.

For more information, ask your nurse or doctor for the handout: **How to Take Your Child's Temperature (#533)**



If your child has any of these symptoms, call the clinic at 602-546-0920 right away. If the clinic is not open, the phone will forward to the hospital operator who will page the doctor on call. Do not call the inpatient nursing staff.

How it is treated

If you see signs of low white blood cell count, tell your nurse or doctor. He or she will tell you what you can do to help your child with low counts.

The doctor or nurse may tell you to give your child acetaminophen (Tylenol) for fever or pain. Do not give aspirin or ibuprofen (Advil or Motrin).

Preventing Infection

When your child's white blood count is low, these things may help prevent infection:

- 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, girls should wipe from front to back.
 - Clean teeth and mouth in the morning, after meals, and at bedtime. If your doctor has prescribed any medicine for mouth care, use them.



Your child should wash his or her hands after using the bathroom, before eating, and after playing outside.

- Keep away from germs.
 - Your child should not go to places where there are crowds or large groups of people.
 - Your child should not be around anyone who has a cold, fever, or cough.

For more information, ask your nurse or doctor for the handout: **How to Avoid Infections If You Are At Risk (#61)**

Low Red Blood Cells

What is happening

Red blood cells carry oxygen from the lungs to all parts of the body. They carry the oxygen on a part of the red blood cell made of **hemoglobin**. When the number of red blood cells is low, less oxygen is carried to the body cells. A person with low red blood cell counts is said to have **anemia**. The number of red blood cells in the blood is called the **red blood cell count**, or **RBC**. Chemotherapy medicines often lower the red blood cell count. The bone marrow may not be able to make normal

cells at the normal rate, or the cancer cells may crowd out the normal blood cells.

What you may see

- very tired
- pale skin
- dizziness
- headache

How it is treated

If you see signs of low red blood cell count, call your nurse or doctor. He or she will tell you what you can do to help your child with low counts. If necessary, your child may need a transfusion of red blood cells.

For more information, ask your nurse or doctor for the handouts:

Blood Transfusions (#99)

About Blood Cells (#736)

Constipation

What is happening

Constipation is when stool moves slowly through the large intestine. It does not come out often enough, and comes out hard and dry. This may happen if your child does not drink enough. It can also be caused by some medicines, such as pain medicines or chemotherapy medicines, like vincristine or vinblastine.

What you may see

- less bowel movements than usual
- stools are hard to pass
- it hurts to pass stool
- cramps, pains in stomach
- upset stomach
- straining with bowel movements
- belly is swollen
- blood in the stool, or blood from the rectum

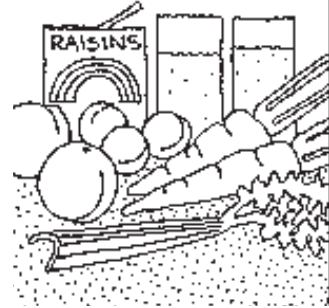
How it is treated



If your child has signs of constipation, call your nurse or doctor.

Some ways to treat constipation are:

- drink enough water and juice
- eat more fruit, vegetables, and whole grains to get more fiber in the diet
- ask your doctor or nurse if your child should take a stool softener



Eat more fruit, vegetables, and whole grains to get more fiber in the diet.

Do not give your child laxatives or enemas unless your doctor tells you to.

Some ways to prevent constipation include:

- drink enough water and juice
- eat more fruit, vegetables, and whole grains to get more fiber in the diet
- walk, run, and play actively

If your child does not have a bowel movement every 3 days, ask your doctor or nurse if your child should take a stool softener.

For more information, ask your nurse or doctor for the handout: **Constipation (#8)**

Sick to the Stomach and Throwing Up

What is happening

Many children treated for cancer feel sick to the stomach at some time during their treatment. Some medicines that treat cancer upset the stomach. Some medicines send a message to the vomiting center of the brain, telling it to throw up.



This sick feeling usually does not last more than 24 hours.

What you may see

- sick to the stomach (nausea)
- throwing up (vomiting)

If your child feels sick to the stomach or throws up too much, he or she may lose too many fluids. This is called **dehydration**.

Some signs of dehydration include:

- mouth and tongue look dry, no spit in mouth (**saliva**), tongue feels sticky
- does not pass urine several times during the day
- acts strange or confused

For more information, ask your nurse or doctor for the handout: **Dehydration (#13)**



If you see signs of dehydration, call the clinic at 602-546-0920 right away. If the clinic is not open, the phone will forward to the hospital operator who will page the doctor on call. Do not call the inpatient nursing staff.

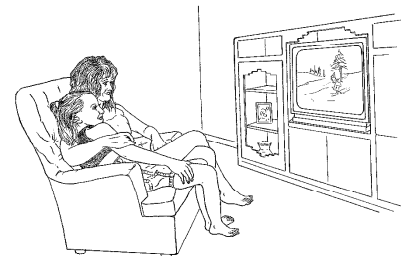
How it is treated

When we give children chemotherapy medicines that may cause upset stomach, we will also give them medicine to prevent or decrease this feeling. These medicines are called antiemetics. Your child will get an antiemetic medicine before chemotherapy is started and during the treatment. These medicines can be given by IV or by mouth. There are several types of antiemetic medicines. Two are ondansetron (Zofran) and granisetron (Kytril). If one does not work well for your child, we can try a different one.

A child who is throwing up should not eat or drink anything for a few hours to let the stomach rest. Then the child can sip some fluids. If the child doesn't throw up, the child can sip more fluids, more often. When ready, the child can eat again.

Other ways to get through the time when the stomach is upset include:

- relax by counting, or taking deep breaths



Think about other things, by watching movies or playing games.

- think about other things, by watching movies or playing games
- drink enough fluids, but do not force them if feeling very sick
- eat ice pops, gelatin desserts (like Jell-O), and drink soda or pop
- eat many small meals, instead of a few big meals
- eat cold foods instead of hot foods

Mouth and Gut Sores

What is happening

The cells in the lining of the mouth and gut divide often, so the chemotherapy medicines may harm them, too. Side effects may occur in the mouth, throat (esophagus), stomach, or intestines. Fortunately, the harm to these healthy cells usually does not last. Most side effects go away when the treatment is over.

What you may see

- small, painful sores (ulcers) on the tongue, lips, gums, and insides of the cheeks

If sores occur in the esophagus, they may cause

- sore throat
- trouble swallowing
- chest pain

If sores occur in the gut, they may cause

- loose stools (diarrhea)
- belly pain

How it is treated

If your child has any of the signs, call your nurse or doctor. They will tell you what you can do to help your child feel better. The doctor may prescribe a medicine that will make your child more comfortable. The sores will get better over time.

Some ways you can help your child include:

- Instead of a toothbrush, have your child brush his or her teeth with a soft sponge on a stick, called a Toothette. Your nurse can tell you how to get these.

- Give your child soft, cool foods, like pudding or milkshakes.
- Foods that may make the sores hurt more are spicy (like chili peppers), salty (like chips), or acid (like orange juice). While your child has sores, do not give these foods.
- Take good care of your child's mouth. Clean your child's mouth after every meal. Your doctor or nurse will tell you what to use.



Give your child soft, cool foods, like pudding or milkshakes.

Hair Loss

What is happening

Hair cells grow very fast, so chemotherapy often harms them. That is why many people treated for cancer lose some or all of their hair.

What you may see

- two or three weeks after chemotherapy begins, you child may start to lose hair
- all parts of the body may lose hair: the head, face, arms, legs, underarms, and pubic area

How it is treated

Fortunately, the harm to these healthy cells usually does not last. Some children's hair grows back while they are still getting chemotherapy. Other children get their hair back when the treatment is over. When it grows back, the color or feel of the hair may be different than it was before.

Here are some ways to help your child with hair loss:

- If your child has long hair, you may want to cut or trim it before it falls out. Shorter hairs on the pillow may be less upsetting than long hairs.
- Help your child choose caps, hats, or bandanas he or she wants to wear. Ask friends and families to give these as gifts.
- If you want a wig for your child, ask a counselor or social worker to help you find

a place to get one. Special places make wigs for children.

- If your child loses head hair, and goes outside without a hat or wig, put sunscreen on your child's head, too. The scalp can easily get a sunburn.

For more information, ask your nurse or doctor for the handout: **Sun Safety (#398)**

Now that you've read this:

- Some signs of side effects of chemotherapy are serious, and if you see them in your child, you need to call your nurse or doctor right away. Tell your nurse or doctor what those serious signs are. (Check when done.)
- Tell your nurse or doctor how you will take your child's temperature, and what medicine you would give your child to treat a fever. (Check when done.)
- Tell your nurse or doctor which number you will call if your child shows signs of side effects of chemotherapy. (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
866-933-6459
www.phoenixchildrens.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.

Monday, April 13, 2009 • DRAFT to family review
#735 • Written by Cheryl Stoneberger, RN • Illustrated by Dennis Swain
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The Emily Center

Side Effects of Chemotherapy

Medication

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

Name of Health Care Provider: _____ Number: 735
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.

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Thank you for helping us!