

Wound Infections and Antibiotics

Why is it important for me to know about infection?

Infection can cause a wound or stop a wound from healing. An infected wound can cause skin, muscle and bone around your wound to die, and then you may need an amputation. The infection could cause sepsis (infection of the blood) as it moves from the wound into your bloodstream. This is dangerous. It is important that you know this so that you know when to get medical help.

What is an infected wound?

An infected wound is one where bacteria (germs) have moved from the skin into the wound. Because bacteria use the nutrients (materials) your skin, muscle and bone need to grow, these tissues die. People with wounds are more likely to get infections because the skin is open and cannot keep out harmful bacteria.

Who is at risk for wound infection?

You may be at risk for a wound infection if your immune system is weak. This is because your body may not be able to fight off an infection. You may not have the same amount of redness, pain, or fever as a person with normal immune system. You may not even realize you have an infection until it is bad.

Patients in this group include those with:

- Diabetes
- HIV/AIDS
- Advanced kidney failure, liver disease, or heart disease
- Cancer
- Rheumatoid arthritis, Lupus, Multiple Sclerosis (MS), under-active or over-active thyroid

Patients taking steroid pills or shots, and those who have had a transplant, are elderly or malnourished are also at risk.

If you have neuropathy (nerve damage) and cannot feel the area where your wound is, you may not feel changes in the wound. Neuropathy can also lessen the amount of redness and inflammation your body shows at the wound site.

What are the signs of wound infection?

The following warning signs can mean you have an infection:

Drainage is any liquid coming out of the wound or through closed skin. If you notice more drainage than usual, or a change in its color or smell, it could mean you have an infection or that it is getting worse.

Redness, darkening, swelling or warmth of the skin around the wound may be seen.

A bad **smell** coming from your wound.

Pain can mean you have a worsening infection, especially if the pain is stronger than usual.

You may see **new openings** in the skin or an **increase** in wound size.

You may have a **fever higher than 101° F** or you may **feel 'unwell,'** like when you have the flu.

To help you remember the signs of wound infection, think:

DROPS

D is for Drainage

R is for Redness

O is for Odor or a bad smell

P is for Pain

S is for Swelling

If you notice any of these signs of infection, call your doctor or go to the emergency room immediately!

Sometimes an infection that has been going on for a long time can stop your wound from healing. You may not see or feel any signs or symptoms of infection. To see which bacteria are in your wound your doctor may do a biopsy (remove a small piece of skin from the wound) and send it for exam. This will tell us the kind of bacteria (germs) you have and how to treat it.

How is a wound infection treated?

You will be given antibiotics. The kind of antibiotic we use will depend on the type of bacteria that is in the wound, how long you have had infection and if you have used antibiotics before. This is because some antibiotics only work on certain kinds of bacteria. There are several ways to give antibiotics. Your doctor will decide which way is best for you.

One way is to treat an infection **topically**. This means that you will put antibiotic creams, ointments or solutions (liquids) directly on the infected area. These treatments do not work for deep infections because they only reach the surface of the skin. If you have a wound that is not healing well, they are not likely to help. Even though you can buy these treatments without prescription, do not use them unless your doctor tells you to do so.

Another way is to treat infection **orally** (by mouth). This means that you will take pills to fight the infection. This method works for most infections. You must take your antibiotics exactly as prescribed. Do not stop taking them until they are all gone, even if you feel better.

The third way to treat infection is **intravenously (IV)**. This is the most powerful and sometimes the best way to treat infection. The antibiotic is given through a catheter (small flexible tube) into your vein and goes directly into your bloodstream. If you need IV antibiotics for a long time, you do not need to stay in the hospital the entire time. You will have a special IV line put in so that you can be given the antibiotic. Some patients or family members learn how to give the IV antibiotics at home. Others will stay in a nursing home for a while, so that the nurses can give the antibiotic every day.

What do I do if I have a question?

If you are confused or have a question about wound infection or antibiotics, please call us at 212.932.4325, at any time. You can also find information at our website: www.ColumbiaWoundHealing.org.

This information is brief and general. It should not be the only source of your information on this health care topic. It is not to be used or relied on for diagnosis or treatment. It does not take the place of instructions from your doctor. Talk to your health care providers before making a health care decision.