

# FIRST AID FOR WOUNDS

AND OTHER SKIN CONDITIONS  
FOR PEOPLE LIVING ON THE STREETS

- wound care strategies
- bacterial infections
- foot conditions
- rashes
- injuries
- infestations & bugs
- treatment tips

A red circular logo with a white border containing the text "PORTLAND STREET MEDICINE" in white, stacked vertically. The background of the entire page features a stylized illustration of a person's skin layers, with a red top layer, a yellow middle layer, and a brown bottom layer, all with wavy, textured borders. Above the skin layers, there are several vertical lines representing hair or a beard.

PORTLAND  
STREET  
MEDICINE

# FIRST AID FOR WOUNDS AND OTHER SKIN CONDITIONS

This guide was produced by Portland Street Medicine, a coalition of medical providers, social workers, care managers, and community members dedicated to providing basic health care to our unhoused neighbors in Portland, Oregon.

Portland Street Medicine does not have a physical location for services. All of our services are delivered in the streets.

**If you are in the Portland area you can request services by calling 503-501-1231.**

We are not emergency services. **If you or someone you know is in crisis or needs immediate attention, please call 911.**

For further information and resources, or for more information about this education program, visit our website: [portlandstreetmedicine.org/sstc](http://portlandstreetmedicine.org/sstc)



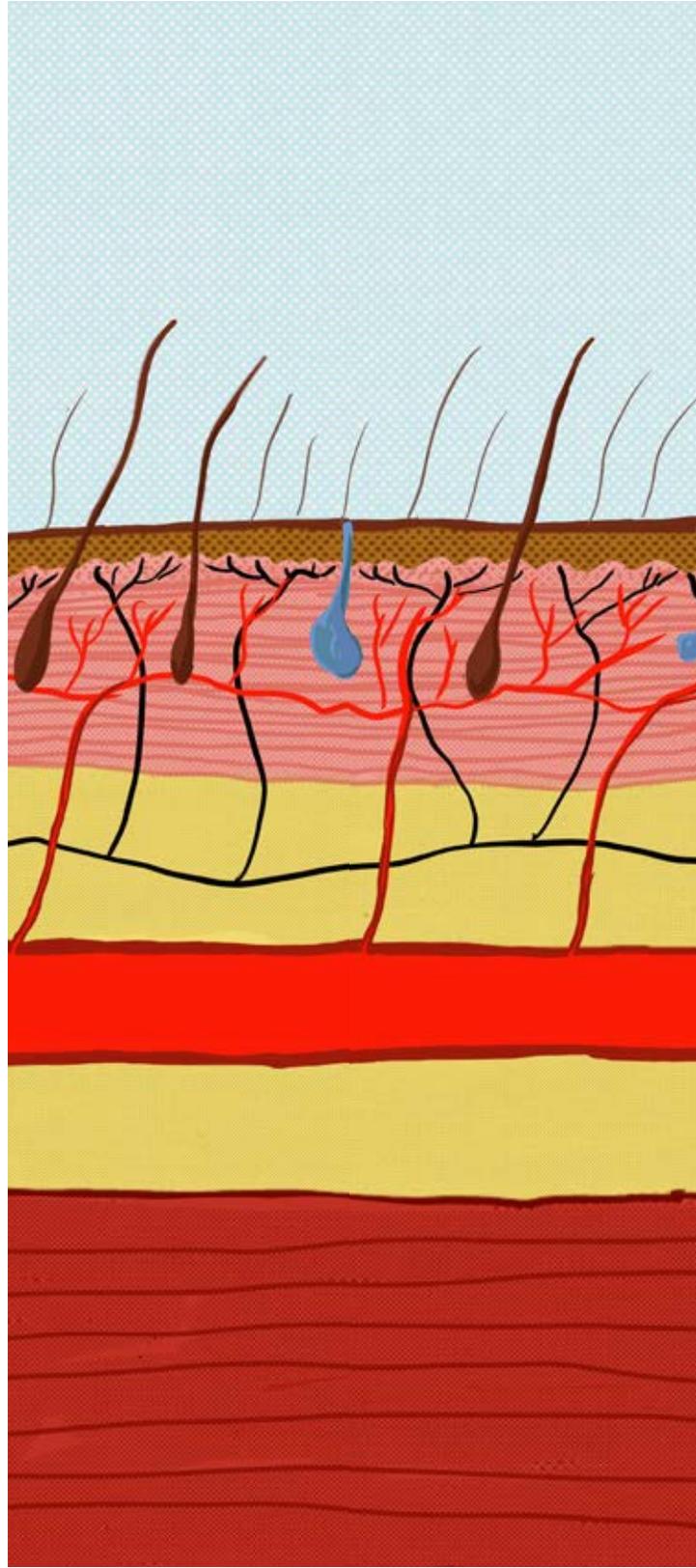
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Written by Fred Cirillo, MD, Alec Dunn, RN, and William Toepfer, MD. With help from Carolyn Bernhardt, Anna Deliglio, PA, Elona Dellabough-Gormley, RN, Joss Hudkins, Andrew Kualaa, RN, and Gregory Nipper. Foot care section written by Audrey Fisher, RN. Illustrations and design by Alec Dunn.

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# BASIC WOUND CARE FOR PEOPLE LIVING ON THE STREETS

This publication is intended to provide information and empowerment to help you make decisions about infections, wounds, rashes, and other skin conditions. It focuses on conditions common to people who are unhoused and may be experiencing conditions of exposure to the environment, lack of sanitation, and lack of adequate access to medical care.

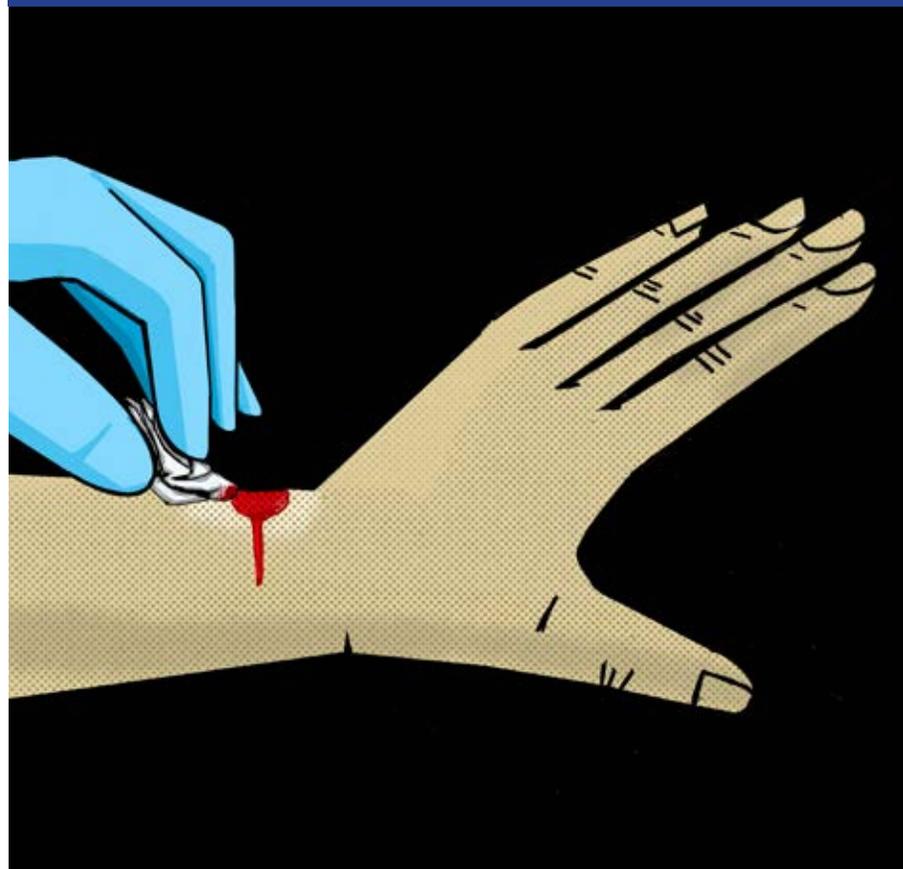
The information in this guide is general and not meant to replace evaluation and care from a trained medical provider. If for any reason you are concerned about an infection, injury, or any other condition, trust your gut and seek help!

Broadly speaking, wound care is mostly concerned with preventing the start of an infection or limiting the spread of an infection if one has already begun. Good wound care consists of 4 strategies:

- Cleaning the wound
- Protecting the wound
- Monitoring for infection
- Helping the body to heal

How you use these strategies depends on the type of wound you are treating. We will attempt to go into detail about some of the most common skin conditions and wounds that trouble people who are unhoused, and offer strategies and tips to encourage healing and prevent infections from getting worse.

## CLEANING WOUNDS



The best way to avoid infection and to help your wounds heal is to clean them. Cleaning wounds regularly and well is very important.

This section will give you general information on how to care for skin wounds. More specific care for infections, cuts, rashes, bites, and other conditions are explained in each of those sections of this zine. Here we will explain:

- The **steps for cleaning** your wound
- How to give your wound the **right amount of moisture**
- **What supplies and products you need**
- **Daily routines** for keeping your wound clean

# How to clean a wound

Thoroughly cleaning a new cut, gash, scrape, or bite right away will help prevent infection.

Cleaning a wound can be broken down into three basic steps but **before you begin, wash your hands!** If running water is not available, new medical gloves or hand sanitizer are good options. If none of these are available, do your best to avoid touching the clean wound or new bandages with unclean hands, used cleaning products, the old bandage, or anything else that might be dirty.

## 1. Organizing and planning

This is an essential stage—especially with limited resources. **Gather your materials together and organize whatever supplies you have.** Think about what you will need for each stage of the cleaning. Ideally these are the things you should have: clean water, gauze, moistener (antibiotic ointment or Vaseline), tape or elastic wrap, gloves, towel, and a trash bag.

## 2. Cleaning a new wound

Use plenty of soap and water if available. For larger wounds or abscesses, it may be best to clean in a shower. If you can't get to soap and water, BZK wipes or other wound cleaner can be used.

Clean from the center of the wound and work your way outward.

**Fluid from wounds can be infectious.** Be careful where you wipe and make sure you dispose of any used cleaning pads.

## 3. Applying product and covering

In most cases, you should put a **moistener or ointment** on the wound (see product list on page 7). After you have applied the product, **cover the wound with a bandage.**

**With very weepy or wet wounds** you may need to place extra gauze to **absorb the moisture.**

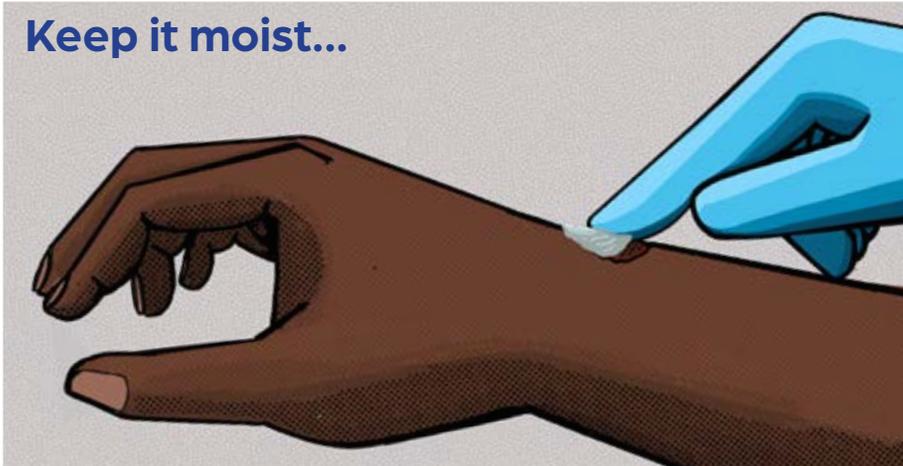
*Most wounds are infectious! Protect yourself by wearing medical gloves (if they're available) while performing wound care and by washing your hands after you've finished.*

## Organize your supplies and workspace before you start!



## Maintain moisture balance!

Keep it moist...



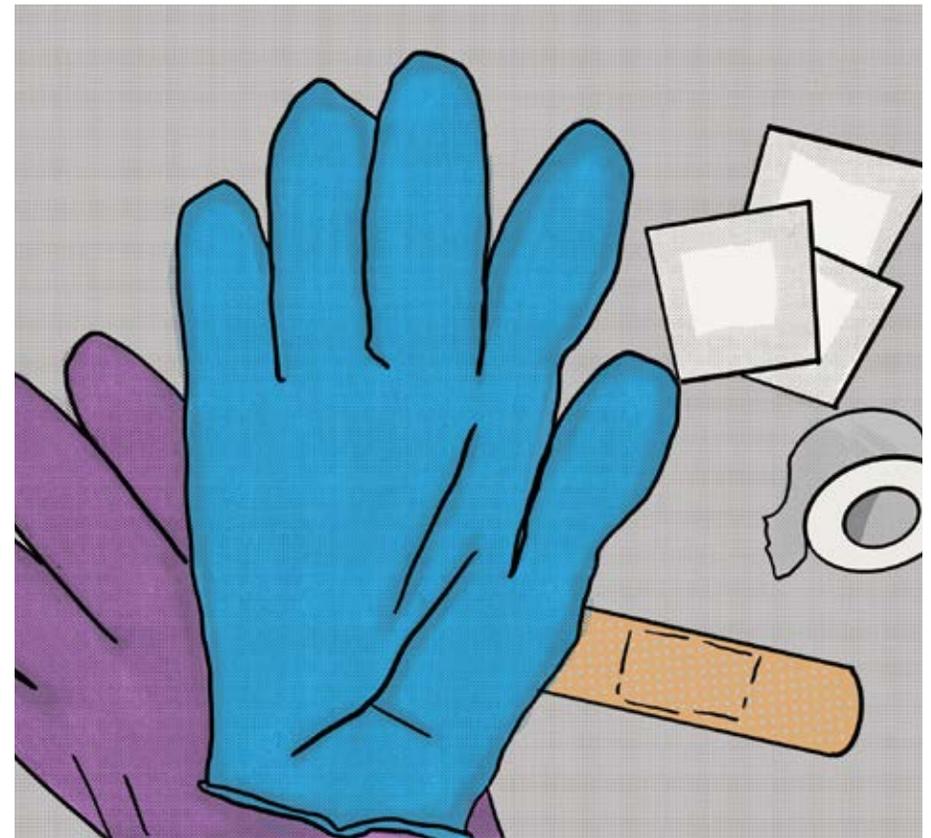
but not too wet



Wounds heal best when they are **not too dry, but not too wet**. Here's how to do that:

- Apply a thin but complete coat of **ointment** to the wound
- Apply a layer of **gauze** (nonwoven is best) to help absorb extra moisture if the wound is weepy and draining a lot of fluid
- Cover this **LOOSELY** with an adhesive bandage, rolled gauze (Kerlix), Coban, or ace wrap
- **Repeat** each day: remove the old bandage, clean, reapply ointment, and apply a new bandage

## Cleaning your wounds: Products



The best way to avoid infection for any new cut or bite is to thoroughly clean your wound as soon as possible. **Soap and clean water work well**. If this is not an option, you can use antiseptics, such as **BZK wipes** or **wound cleanser**.

**Alcohol and hydrogen peroxide are recommended only for the first cleaning after injury** as they can destroy healing cells. Avoid using these two antiseptics in healing wounds. Only use them if you cannot find soap and water, saline solution, BZK wipes, or wound cleanser.

After cleaning, **keep your wounds covered** with loose-fitting gauze or bandages.

Immediately stop using any products on your skin if you feel that you are having an allergic or bad reaction. If your wound continues to look worse each day, seek medical advice from a health care professional.

# Products

## Cleaners



### SOAP and WATER

**Pros:** Gentle, effective, good with wounds at all stages of healing. Cheap and available.

**Cons:** Can be hard to access running water and soap consistently



### ALCOHOL PADS

**Pros:** Cheap, easily available, easy to carry

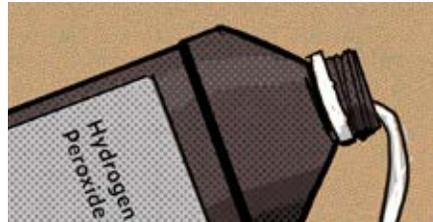
**Cons:** Harsh on new and healing tissue, can be painful



### BZK PADS

**Pros:** Easy to carry, effective, and gentler than hydrogen peroxide or alcohol, less painful

**Cons:** Not always available



### HYDROGEN PEROXIDE

**Pros:** Cheap, easily available, can help dissolve dried blood and 'gunk'

**Cons:** Very harsh on new and healing tissue

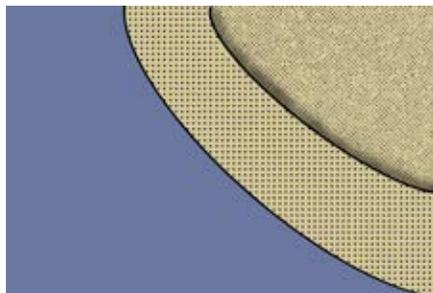
## Coverings



### GAUZE

**Pros:** Cheap and available

**Cons:** Can dry out wounds that need moisture, best when used with ointment. Nonwoven gauze is best if you can find it, but regular (woven) gauze will also work.



### SPECIALTY DRESSINGS

**Pros:** There are many specialized dressings available that work well for specific situations.

**Cons:** Typically expensive and hard to find.

## Moisteners



### ANTIBIOTIC OINTMENT

**Pros:** Cheap, moistens

**Cons:** Weak antibiotic, dries quickly, can cause allergic reactions



### A&D OINTMENT/VASELINE

**Pros:** Cheap, moistens

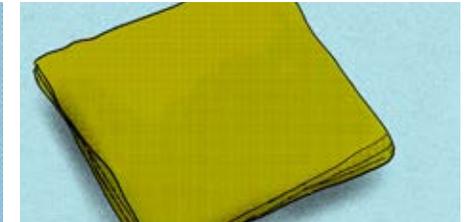
**Cons:** Some people have sensitivities to A&D



### HERBAL FORMULATIONS & MEDICAL HONEY

**Pros:** Keeps wounds clean, gentle

**Cons:** Expensive, some ingredients may trigger allergic sensitivities.

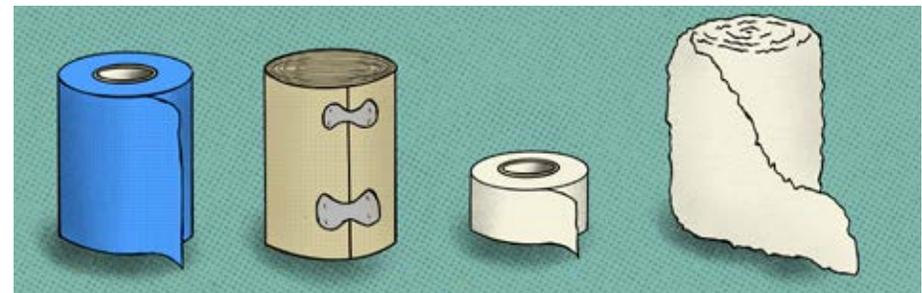


### XEROFORM

**Pros:** Very moist, lasts a long time, affordable

**Cons:** Hard to find, greasy, needs to be cut to size

## Tape and Fasteners



**Coban (or sport tape)** is a stretchy self-adhering bandage and works great for holding bandages and gauze in place.

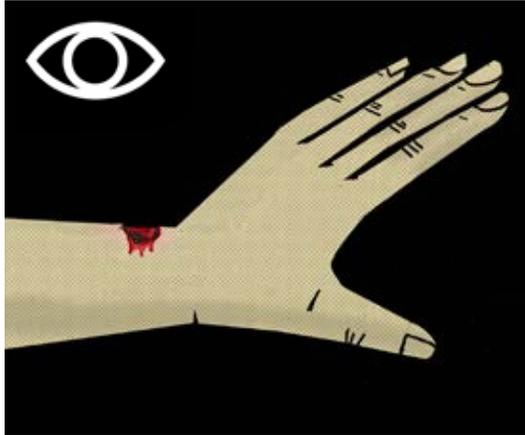
**Ace wrap** works well on some parts of the body (ankles, arms) but can get loose easily with activity.

**Adhesive/surgical tape** is easy to find but tends to fall off with activity.

**Kerlex** is rolled gauze and is great for absorbing fluids and moisture, but gets loose easily.

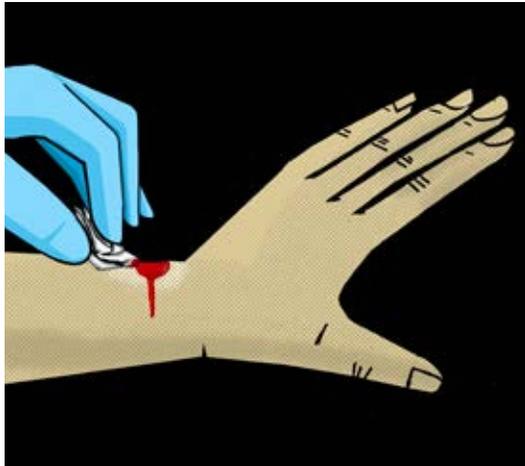
Be careful not to wrap bandages too tight—they may cut off circulation!

# Cleaning your wounds: Daily routine



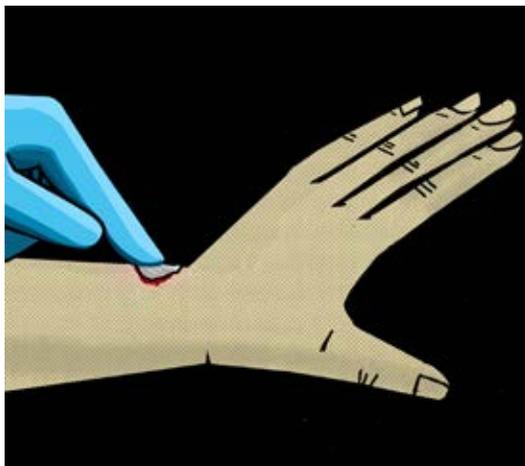
## 1. Look

Notice the size of the wound, the type of drainage, the condition of the surrounding skin, and anything that has changed since you last saw the wound.



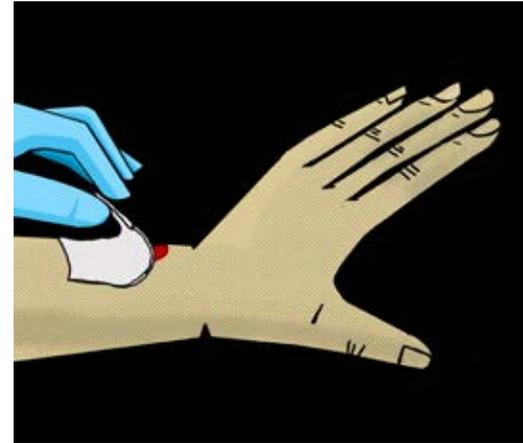
## 2. Clean

Clean the wound with care. Give it a gentle scrubbing. Try not to disrupt any new and healing tissue.



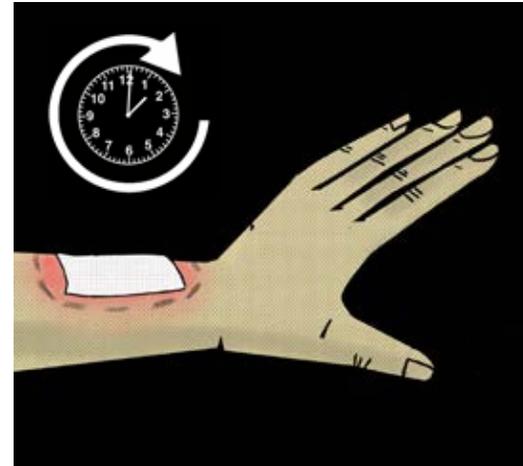
## 3. Balance the moisture

Apply ointment to your wound, unless it is leaking fluids. Then, apply gauze to help soak up the extra moisture.



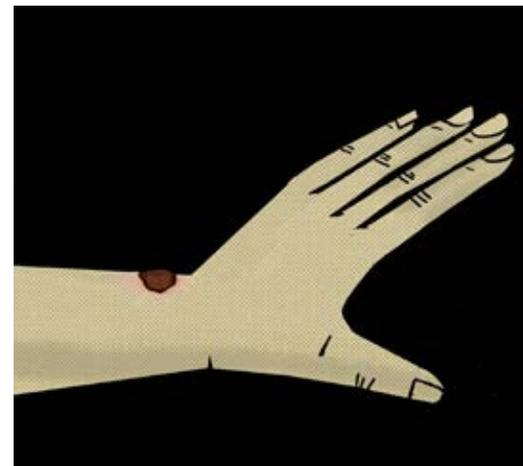
## 4. Cover

Covering the wound protects it from irritation, damage, and new infections.



## 5. Ignore/monitor

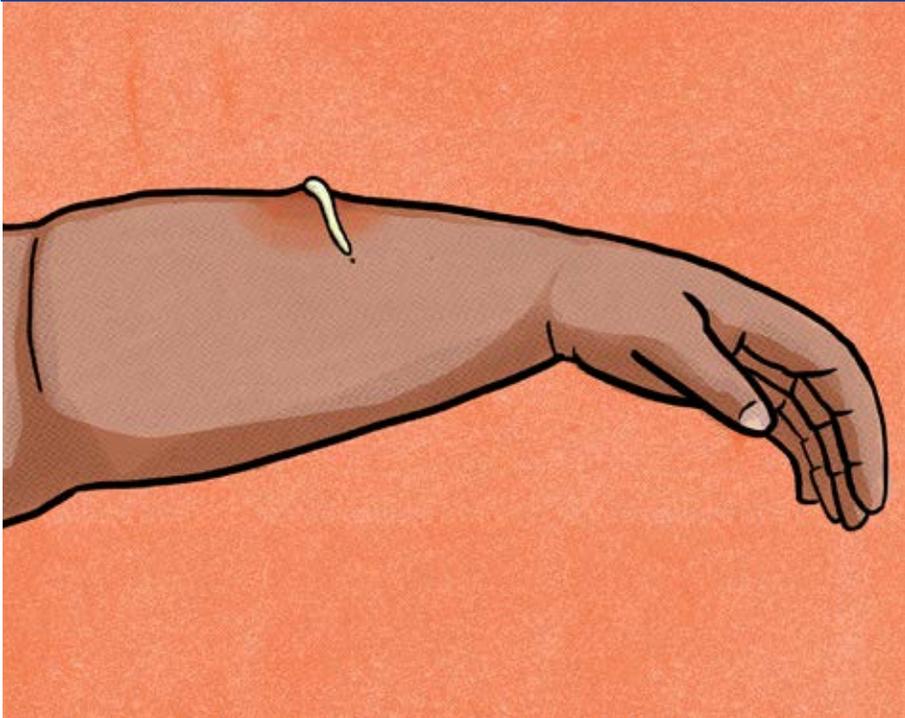
Once you've covered the wound, give it some time to heal and rebuild. Keep an eye out for infection (see signs of infection on pages 12–13), but don't touch it other than to clean it.



## 6. Repeat

Repeat this process daily or more often if the wound needs it (for example, if the bandage is soiled or soaked before the next day).

# MONITORING WOUNDS



Cleaning and protecting your wounds is an important first step to healing. Watching your wounds and paying attention to your symptoms is equally important. Self-monitoring can help you catch an infection when it is still easy to treat.

## This section will help explain:

- What **healing** looks like
- What **infection** looks like
- Things that **interrupt healing**

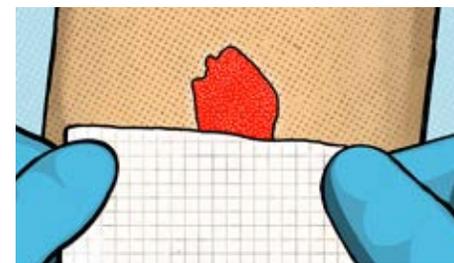
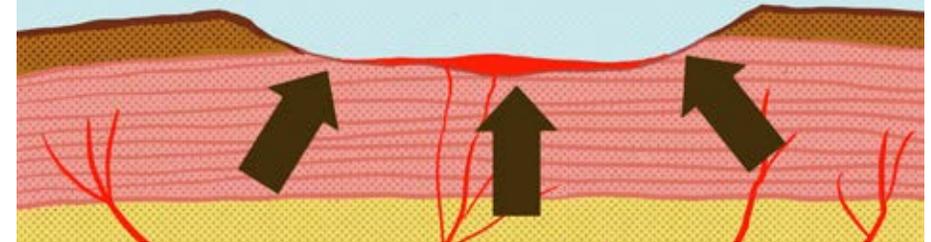
## Monitoring your wounds: Healing

Ideally, this is how you can expect wounds to heal:



For new cuts or wounds, it's important to clean well with soap and water as soon as possible. If the wound looks like it's healing, be gentle because scrubbing too hard can damage healing tissue. If it seems like your wound is starting to get infected, get help from a medical professional.

Skin heals from the outside to the center. The body builds new replacement tissue from the sides and the bottom of a wound.



As the wound heals it will form a fragile layer of skin that could open up and bleed easily. **Protect this new tissue by keeping the wound covered and moist until it heals.** The base or floor of a healthy wound is pink, soft to the touch and appears bumpy. A provider may call this 'healthy granulation tissue,' a sign of healing.

A protective scab will form over many fresh cuts and scrapes. This is a normal part of the healing process. **Picking scabs will slow down healing** and expose the wound to germs

# Understanding inflammation . . .

# and identifying infection

If you can tell when an infection is starting, you can get medical help in time to stop it before it becomes serious.

## Inflammation

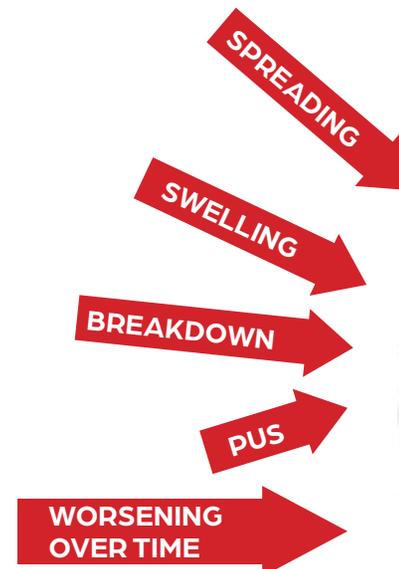
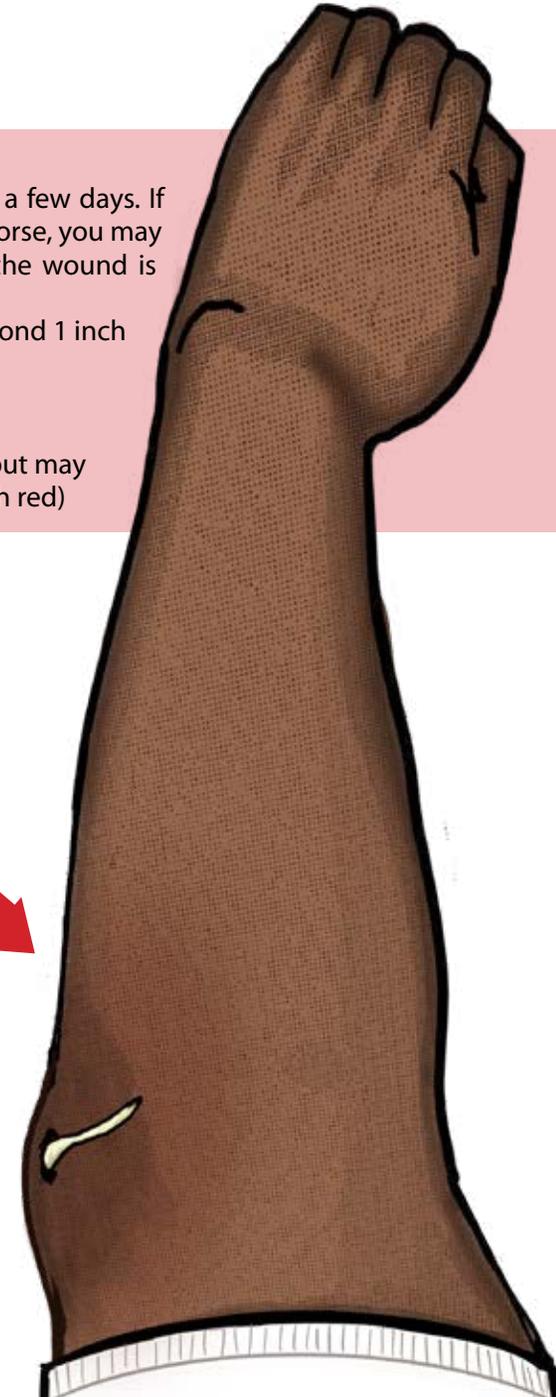
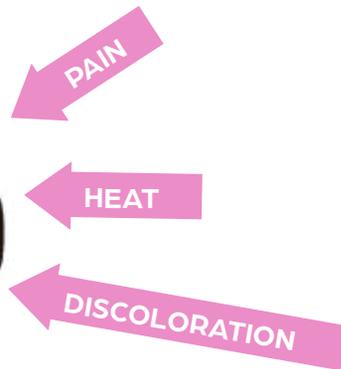
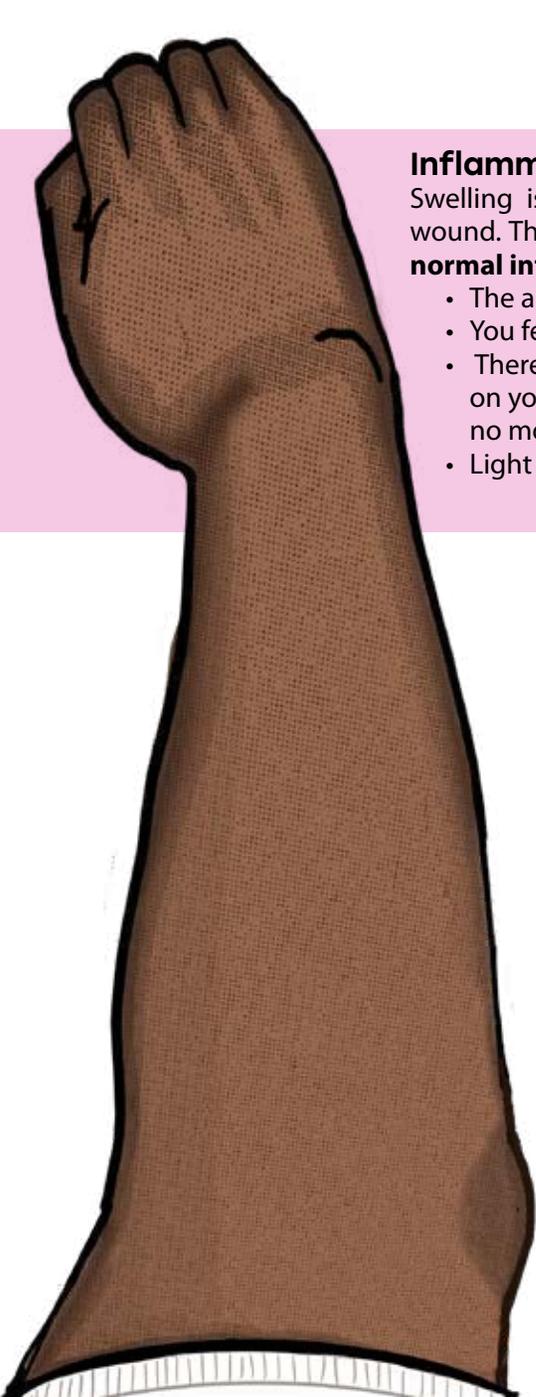
Swelling is the body's response to a new wound. This is called inflammation. Signs of **normal inflammation** are:

- The area feels warm
- You feel some pain
- There is some reddening or darkening on your skin around the wound, usually no more than an inch
- Light or clear drainage can be normal

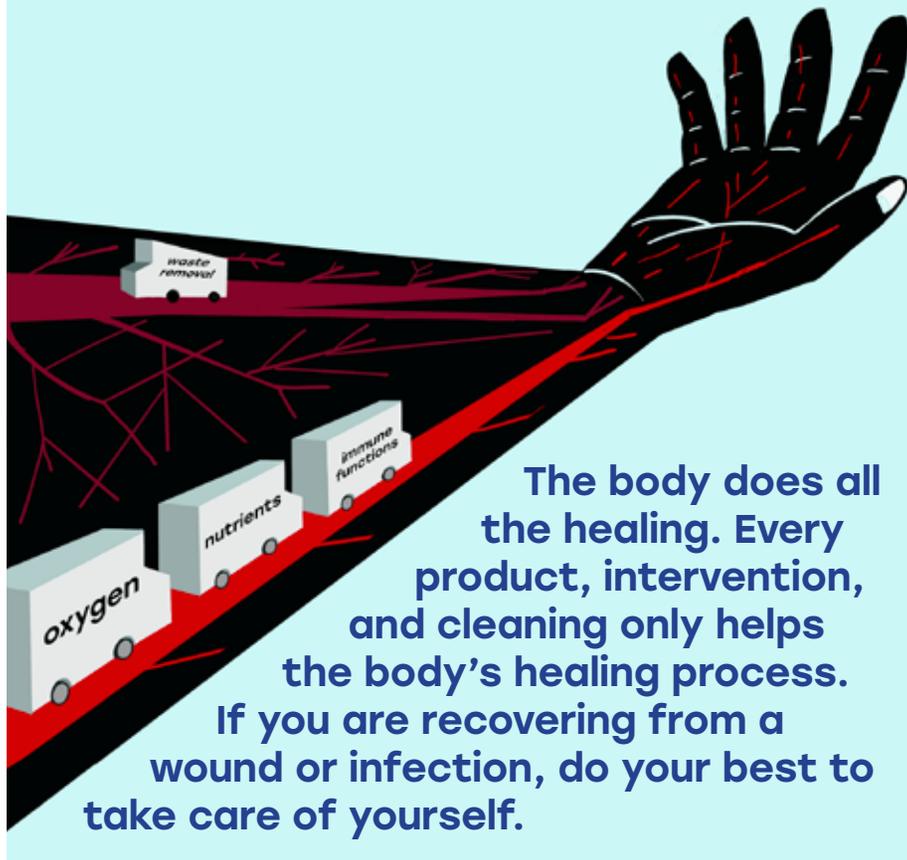
## Infection

Inflammation usually only lasts a few days. If it lasts longer, or starts to feel worse, you may have an **infection**. Signs that the wound is infected may include:

- Reddening or streaking beyond 1 inch
- Increased swelling
- Increased pain
- Skin breakdown
- Pus (thick, typically yellow but may also be pink or streaked with red)

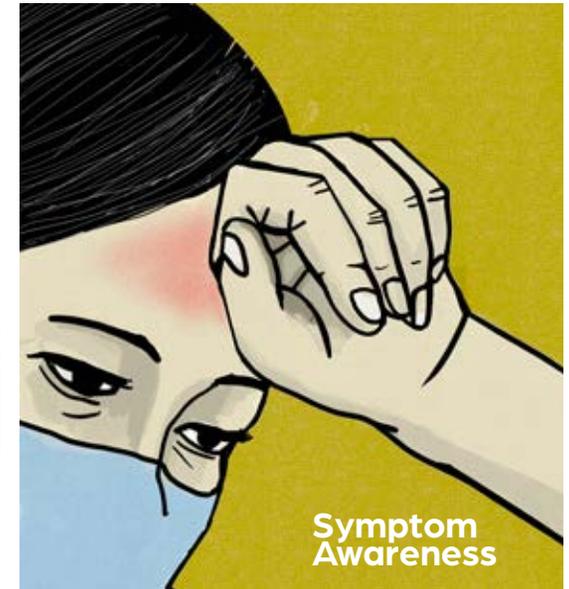
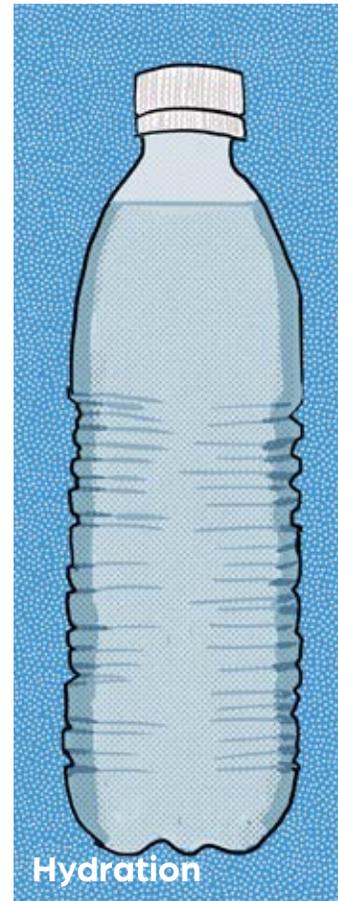


# HELPING THE BODY HEAL



It's **not always possible to avoid infection** completely. But there are certain things you can do to **help lower your chances** of getting an infection, and things you can do to help your body heal better. **Sometimes antibiotics are needed to help fight an infection.**

This section will explain what you can do to help the body heal.

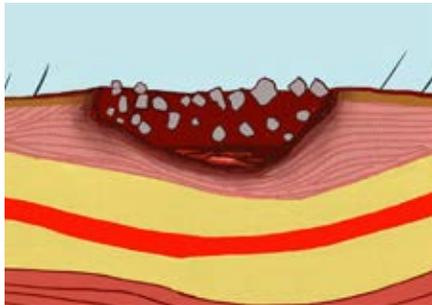


## These tips can help you heal faster:

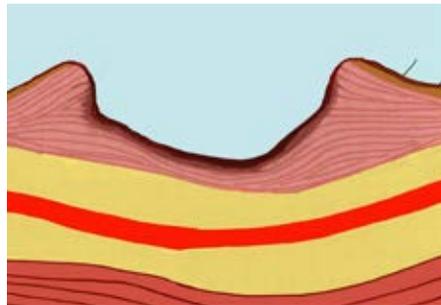
- **Good circulation** helps bring oxygen and nutrients to a wound. Staying seated all day, sleeping seated, cramped up or in the same position for a long time can reduce circulation to parts of your body. Try to walk if possible. Spend time each day lying flat to promote good circulation. If your legs or feet are swollen, elevate them.
- **Hydration.** Drink plenty of water.
- **Eating well.** Vitamins and proteins help new tissue form in the body. A well-balanced diet supports wound healing.
- **Sleep.** Getting good rest helps the body focus on healing.
- **Symptom awareness.** Watch for pain, redness, swelling, or pus developing. Also watch for any signs that an infection may have gotten into the bloodstream. These include things like fever, weakness, confusion, and flu-like symptoms. If you develop any of these symptoms from a wound, seek medical help right away.

# Barriers to healing

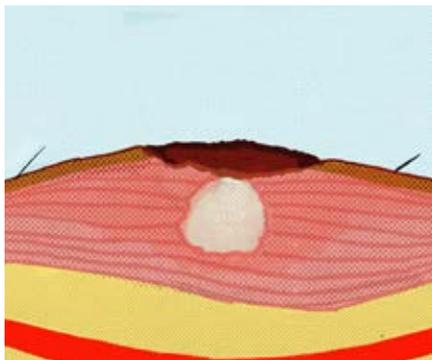
Certain things can slow or even stop healing. It's important to know what those things are so you can avoid them.



**Dirt and gunk** will slow the healing process and cause ongoing inflammation. When you clean the wound, make sure you get all the debris out.



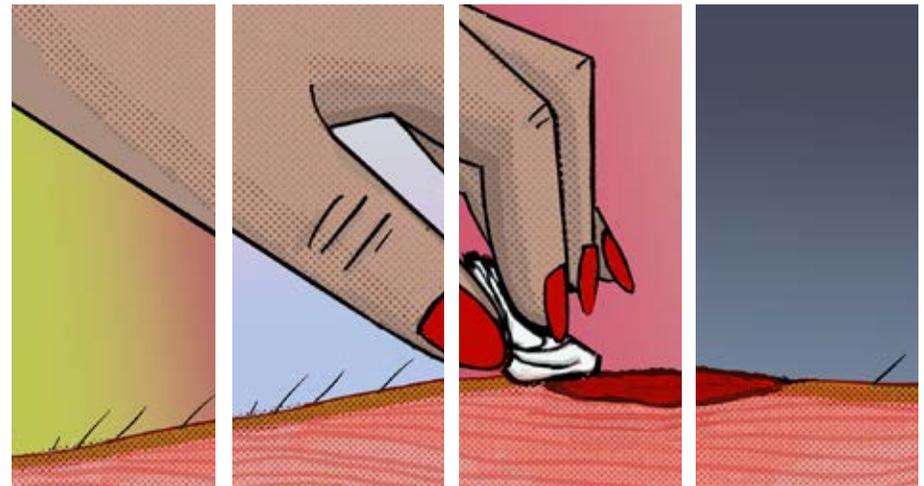
**Wounds that are too big** will not be able to close and heal effectively. They are at a higher risk of infection because of how long they can take to heal. New large wounds may require stitching. Most wounds should be stitched within 12 hours. Older large wounds may require ongoing wound care from a professional.



Even small **pockets of infection** will cause ongoing swelling that will prevent healing.



**Over-picking** interrupts the healing process. Scabs protect wounds and help the body grow new tissue. Never touch a wound other than to clean it.



Gently cleaning a wound once a day and then covering it with a clean bandage is the best way to help your body heal.

- **Avoid cleaning too often.** Skin needs time to heal and rebuild. Constant cleaning will slow this down.
- Unless there is heavy drainage of fluid or pus soaking through, **a bandage usually will not need to be changed more than once a day.**
- **Soap and water works best** for daily cleaning when available. Other substances like rubbing alcohol and hydrogen peroxide will kill germs but also slow healing by preventing new skin cells from forming.

**Chronic diseases**, like diabetes or heart failure, can slow healing, especially if they are not being medically treated. If you have a chronic disease, consider seeking out medical treatment to support wound healing.

**Nicotine, meth, and cocaine** in any form limit blood flow and slow down healing. If you use these drugs, consider slowing or stopping their use to support wound healing, if possible.

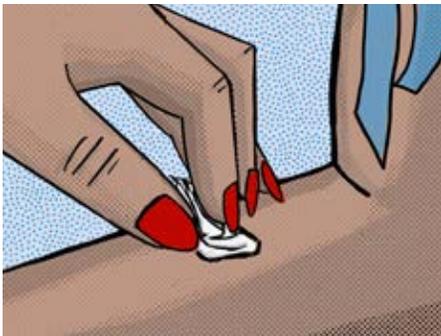


# Preventing infection: Injection health

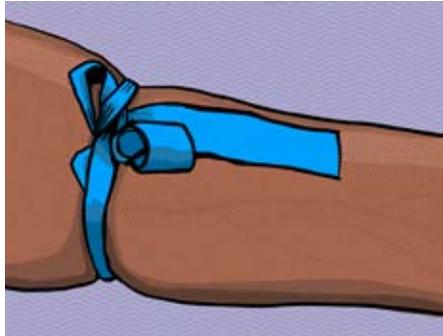
Injecting drugs involves breaking the skin, which always carries some risk for infection. But there are some ways you can lower your risk:



**Aim for everything to be as clean as possible.** Wash or sanitize your hands. Clear and clean an area to set up. **Use a new set up** (new needle, new cotton, new cooker, clean water) **every time you inject.** Get new needles and supplies at a syringe exchange or pharmacy. If you have no other options, flush the syringe with water, fill with bleach for 2 minutes, then rinse thoroughly with cold water.

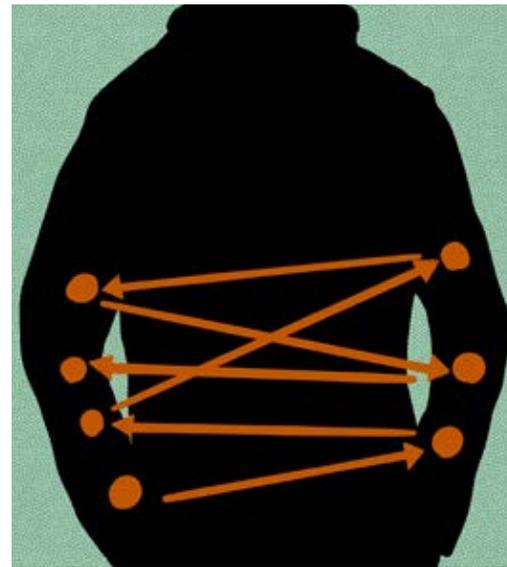


**Clean your skin before your shot.** Even skin that looks clean can have normal bacteria that causes infection when it gets inside of our bodies. Scrub where you plan to inject with an alcohol pad, skin wipe, or soap and water for 15 seconds and let it dry.



**Use a tourniquet** to make sure you are hitting the vein. Missed shots can cause inflammation, infection, and other problems for your veins. If you miss, get the spot warm with a hot pack or warm water to help with circulation.

**Make finding veins easier** by drinking water and getting some light exercise. A healthy vein will be raised and plump but should squish easily.

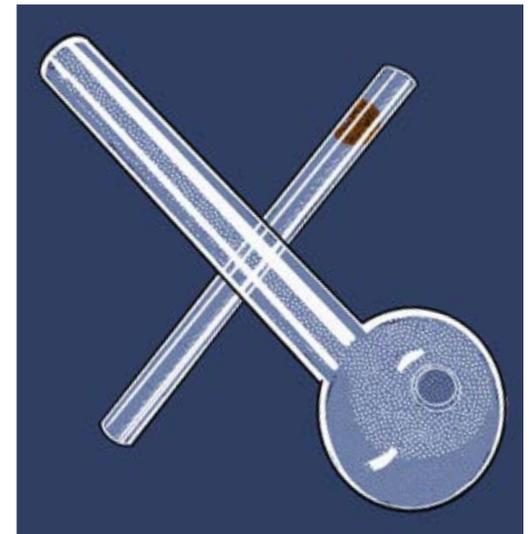


**Rotate your injection sites.** Give your veins and skin time to heal between injections.

**Avoid wounds and sensitive areas.** If you have to inject near a wound, do so **above the wound.** Never inject into or below an infection. Avoid shots in the neck, groin, hands, and feet whenever possible.

**Meth and heroin (or fentanyl) are often made in dirty conditions.** These street drugs **can have germs and other things in them** that can cause infections when they are injected, no matter what precautions you take.

**Crack and meth are very irritating** to skin tissues. After injecting, it may feel like you have bugs under your skin. **Picking and scratching will make it worse;** this feeling should get better with time.



**Smoking, snorting, and other routes for taking drugs** are less likely to cause skin wounds and infections.

Another drug on the streets is **xylazine** (sometimes called 'tranq' or 'sleep-dope'). It may be mixed with other drugs. Injecting xylazine can cause wounds that look like burns and cause black/yellow/green tissue. These wounds may show up on parts of the body where you have never injected.

# Fighting infection: Antibiotics

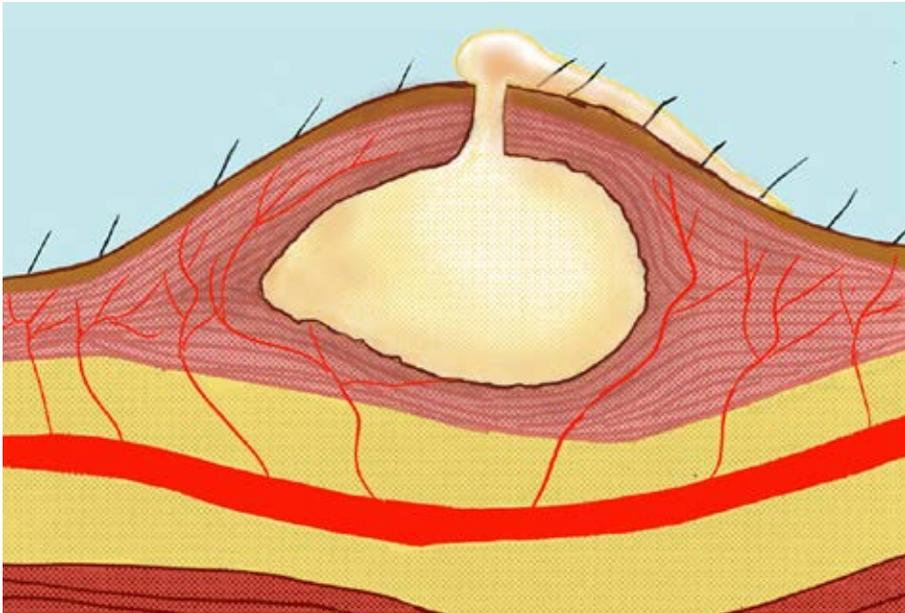
Antibiotics kill germs (bacteria). But there are many kinds of antibiotics, and different antibiotics are designed to fight different infections. Not all antibiotics will work for all types of infection.

## Finding the right antibiotic for you

A health care provider may give you certain antibiotics based on things like:

- **Where the wound is** on your body
- **How you got the wound** (trauma, injection, insect bite, etc.)
- **How the wound looks**, such as whether it is deep or spreading, or if there is pus
- **Specifics about you**, such as allergies to any medications, if you have diabetes or other medical conditions, and whether you're living in a situation where you can keep the wound clean

Before giving you antibiotics, **your health care team will need to ask you a few questions and look at the wound.** If you go to the hospital, they might run tests. This helps them decide which antibiotic to prescribe.



*Antibiotics will not work for many types of wounds. Some abscesses (with no signs of infection around them) do not have access to the body's blood supply. In these situations, taking antibiotics will not reach the infected area.*

## Taking your antibiotics

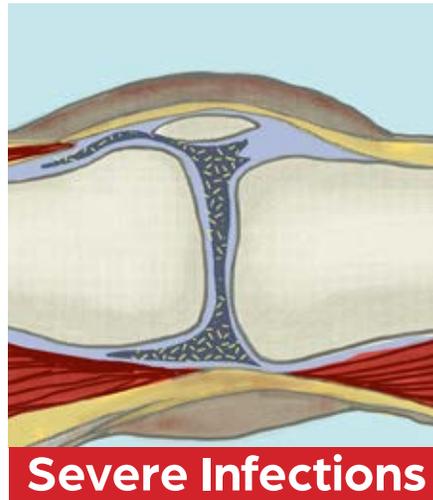
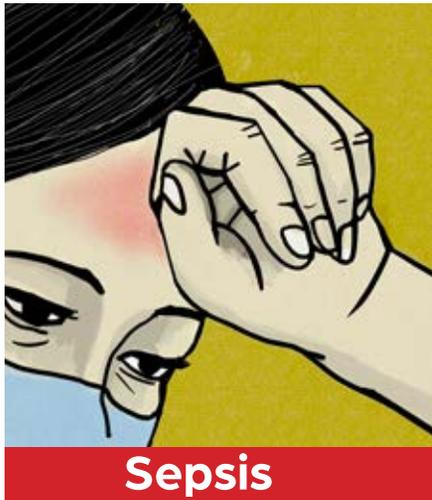
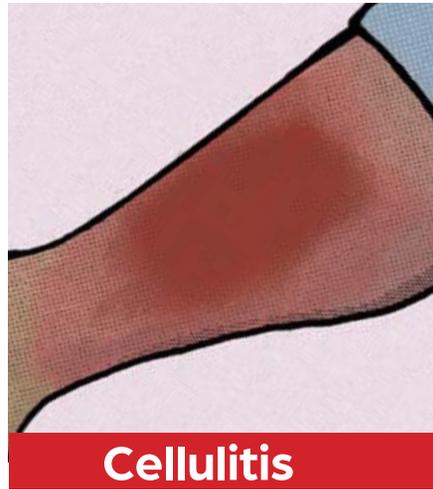
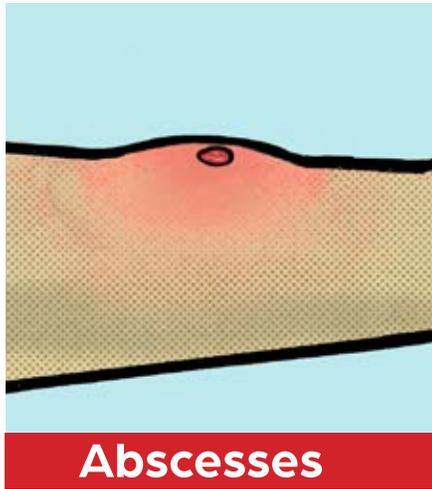
People often stop taking antibiotics when their symptoms improve, but it is important to **take all of your antibiotics no matter what.** Even though the symptoms are gone, the infection could still be in your body. **Stopping the antibiotics early can allow the germs to fight back against that specific antibiotic.** That means those germs may become resistant to it, and that antibiotic might not work the next time.

Taking antibiotics can be hard on the immune system because **antibiotics tend to kill good germs (bacteria) as well as the bad ones.** We have bacteria all over our bodies, but most are not harmful. Some even help defend our bodies against the bad germs. So, if you are taking antibiotics to kill the bad bacteria, you can help **replenish the good bacteria** by taking **probiotics** or eating yogurt.



# TYPES OF SKIN INFECTIONS

**Some infections are more common among people living on the streets.** This section will help explain what those infections are, how life-threatening they are, how to care for them, and when to seek medical attention. It will go over:



## Infections: Abscesses

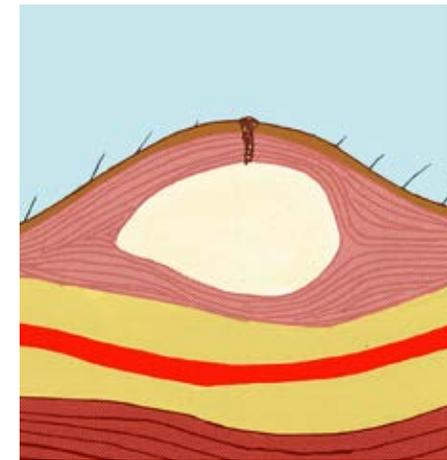
### What is an abscess?

A skin abscess is a **pocket of infection underneath the upper layers of the skin**. Abscesses can be open or closed depending on if they have broken the surface of the skin (see images below).

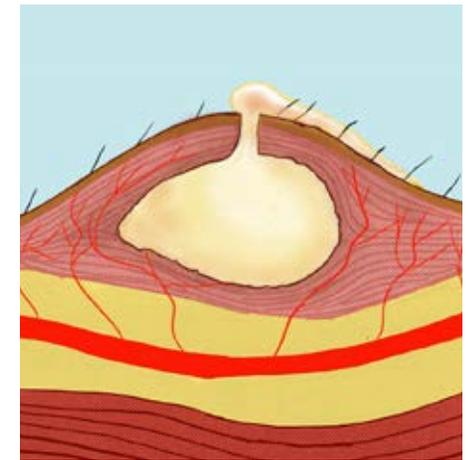
An abscess is always infected with pus, a thick fluid of bacteria, used immune cells, and other things. **Pus is always a sign of infection. Pus may not always be drainable (see below).**

### Causes

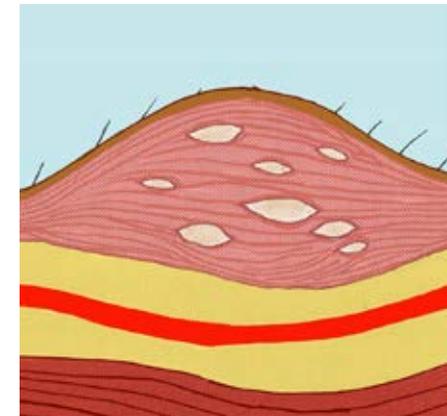
Abscesses are **caused by germs** (bacteria). Abscesses are **a part of the body's response to an infection**.



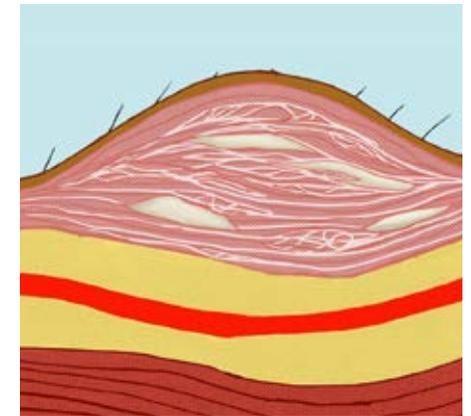
*A closed abscess.*



*An open abscess.*



*A closed abscess with many small pockets of pus.*



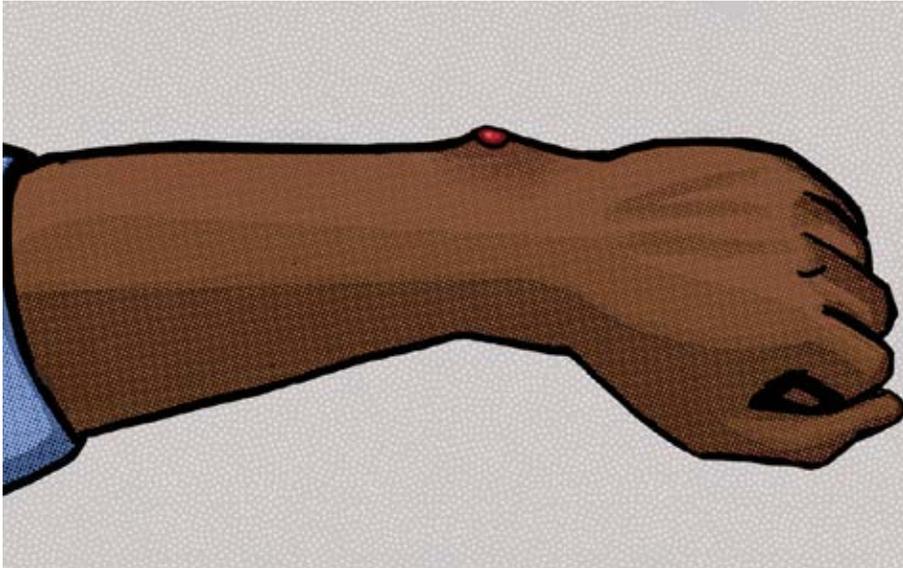
*An abscess in an area with lots of scar tissue from previous abscesses.*

## Abscesses: Signs and symptoms

**Before you see an abscess** on your skin, you will usually experience inflammation:

- Swelling
- Warmth
- Pain
- Redness or darkened skin around the area

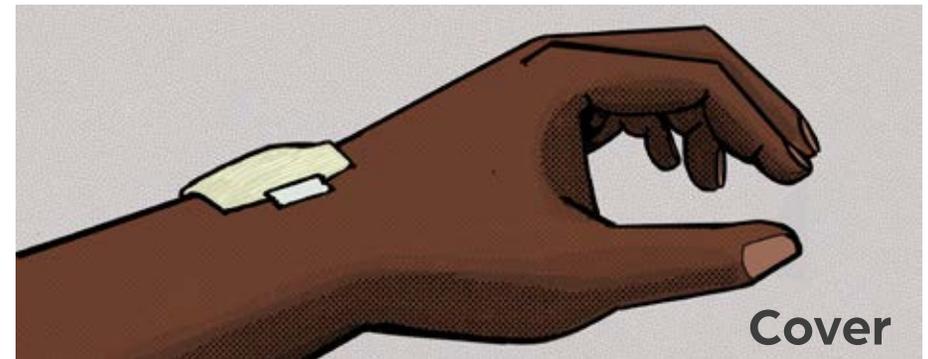
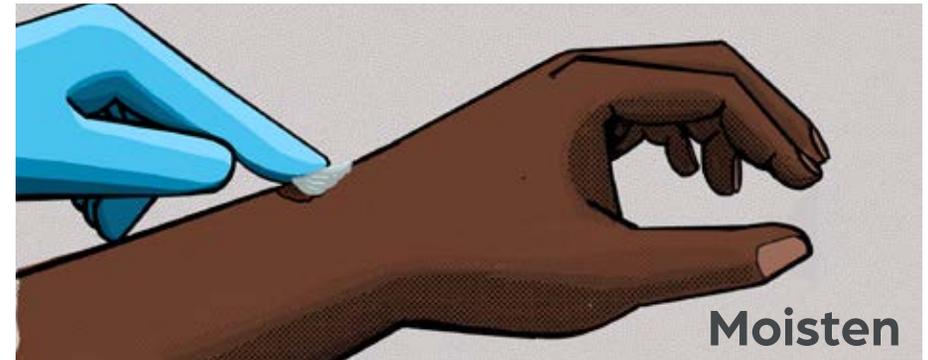
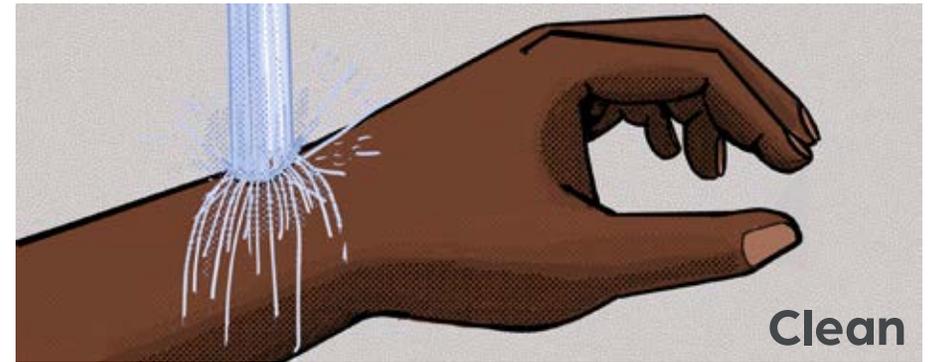
**These first symptoms are signs that your body is working to fight the infection.** During this stage, your body might manage to kill off the bacteria and heal on its own. **This stage usually takes 2–3 days.**



**If your body didn't manage to kill the bacteria on its own in 2–3 days, an abscess will form and your symptoms will get worse.** An abscess that gets big quickly is a sign that the body is unable to fight off the infection.

**Abscesses can also leak fluid.** This fluid can be white/yellow (pus), red (blood), clear (serous fluid), or a mixture of all three.

## Preventing abscesses



**The best treatment for an abscess is prevention.** You can **prevent an abscess by cleaning** scrapes, abrasions, cuts, or punctures as soon as possible after the skin is broken. **If you are injecting drugs, it is essential that you clean your skin before you inject.**

**Not all abscesses start with broken skin.** Sometimes, they just happen. If you feel an abscess forming but don't have an open wound, **you should still keep the area as clean as possible.**



## Keep it clean

**If an abscess is closed, keep the area clean** and monitor the site for any changes, signs of infection, or spreading. Often, a closed abscess will eventually open up to drain out the pus. You can help speed up this process with warm compresses, if available. If not, a hot shower will help.

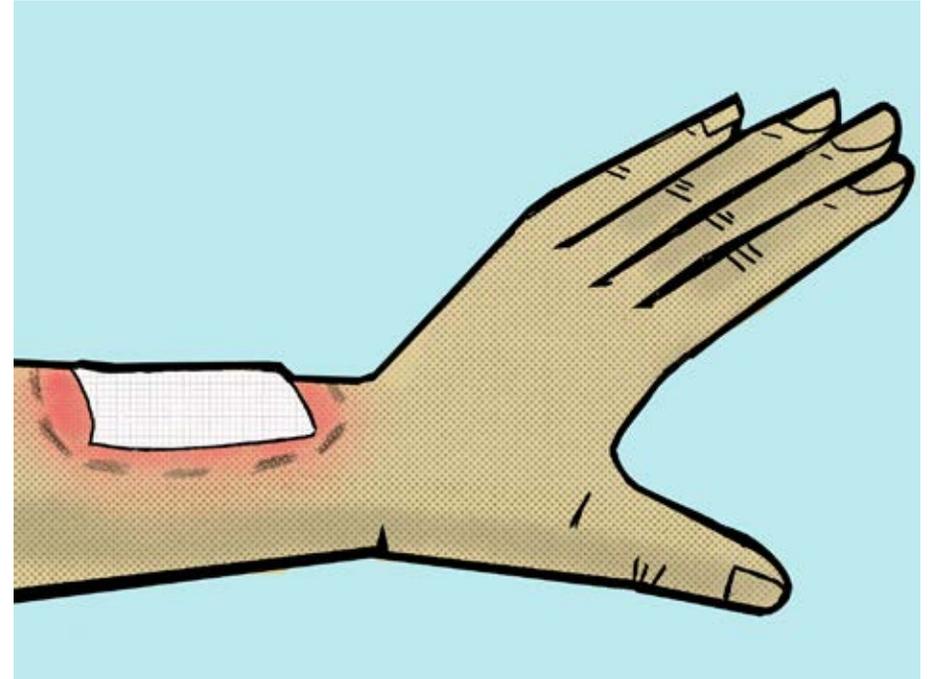
**If the abscess is open, clean it daily** (or more often if there's lots of drainage).

## Monitor the wound

While you are cleaning the abscess, **look for changes**. Changes in the condition of the infection may require you to change strategies (cleaning more or less often, seeking help).

### Ask yourself:

- Is it getting smaller or larger? It may be helpful to use a magic marker to outline the area of inflammation
- Is it more painful?
- Are there any changes happening rapidly?
- Are you feeling sick overall? Feverish or excessively tired?



## Keep it covered

**After cleaning, coat the abscess with a thin layer of ointment** if you have it (antibiotic ointment, A&D ointment, Vaseline, herbal wound ointments). **Then lightly cover the abscess with a bandage.**

## Let it heal

Once you have cleaned and covered the abscess, **it is important to leave the area alone**. Fingers and fingernails are dirty and may reinfect the area. Continual poking, prodding, and picking will keep the wound from healing.

## Antibiotics and abscesses

**Antibiotics can be helpful for some abscesses.** They may be prescribed when the area around the abscess is especially red, tender, streaky or when there are lots of smaller scattered abscesses. If your abscess requires an **incision and drainage** (I&D or 'lancing'), you may be prescribed antibiotics to help in the healing.

***If an abscess is larger than the size of a quarter, is growing rapidly, or is not beginning to heal after three days, then you may need to seek medical help!***

# Infections: Abscess care strategies

How to care for an abscess depends on how it looks and feels.



Abscess smaller than this circle

Inflammation less than a one inch spread

## Smaller and stable

If your abscess is smaller than a quarter, and there is less than one inch of surrounding redness, and it isn't causing you too much discomfort, then **focus on keeping it clean and covered**. Apply warm packs or take hot showers to help let it come to a head and drain on its own.



Abscess larger than this circle

## Larger and stable

If your abscess is larger but isn't causing you too much pain, **keep it clean and covered, but consider getting some help**. Larger abscesses often need to be drained of their fluids. The earlier a health care provider can do this for you, the better. Most medical and urgent care offices are equipped to handle abscess care—you can avoid a trip to the hospital if you get to a clinic in time.



## Any size and you feel sick

**Always seek medical help if you develop signs of infection**, including increased pain, redness, and streaking, or **symptoms of sepsis**, such as fever, aches, confusion, or nausea. Consider emergency services if you're feeling worried. It's better to be safe than sorry.



## Draining

If pus starts to seep out of your abscess, **focus on keeping it clean and using warm packs**. After cleaning, apply a thin layer of Vaseline or antibiotic ointment. Apply gauze (nonwoven if available—it is less likely to stick). Lightly cover your abscess with a larger bandage, ace wrap, or Coban. **Plan to change your bandage daily** or even more.



## Nonhealing or scarred

Consider visiting your primary care clinic or calling your local street medicine group if there is not improvement after three days. Until then, watch for increased size, pain, redness, or fever.

## When and who to ask for help with an abscess

### Go to a primary care clinic or urgent care, or call your local street medicine group, if:

- The abscess is **getting larger** or rapidly growing. It may need to be drained and cleaned by a medical professional.
- The abscess is causing **increased pain** or it keeps draining **more pus than expected**.
- The abscess is **not healing after about three days** or your symptoms are getting worse.
- **You are really stressed out** and having trouble making decisions.

### Go to the emergency room if:

- You see **streaks developing from the abscess** toward your body's core
- You **suddenly feel like you may pass out**, feel sick, or have flu-like symptoms
- You feel **confused, nauseated, or short of breath**.
- You have an abscess **on your neck, breast, center of face, or genital areas**
- You have **an abscess that is bigger than your fist**
- You have a **hand abscess** makes you **unable to make a fist** or open your palm completely

# Infections: Cellulitis

## What is cellulitis?

Cellulitis is an infection in the deeper layers of the skin and soft-tissue.

## Signs and symptoms

Cellulitis will appear as a **red, pink, or darkened area of the skin**. This area will have irregular, patchy, or loose borders. It is generally **painful and tender** to the touch. The **skin may be warm or hot**.

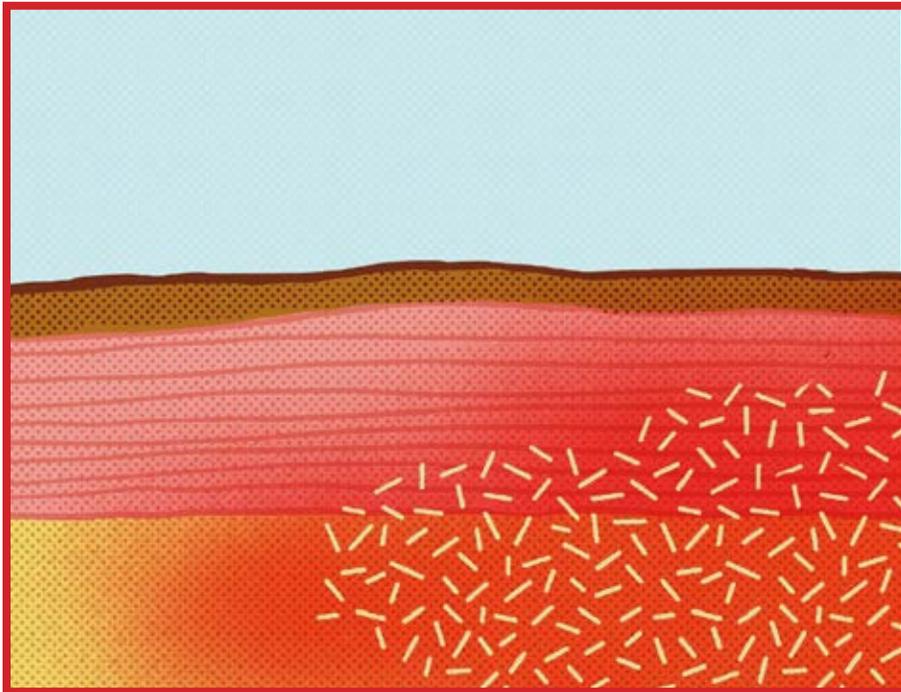
## Causes

Cellulitis is caused by bacteria. These germs do not form pus.

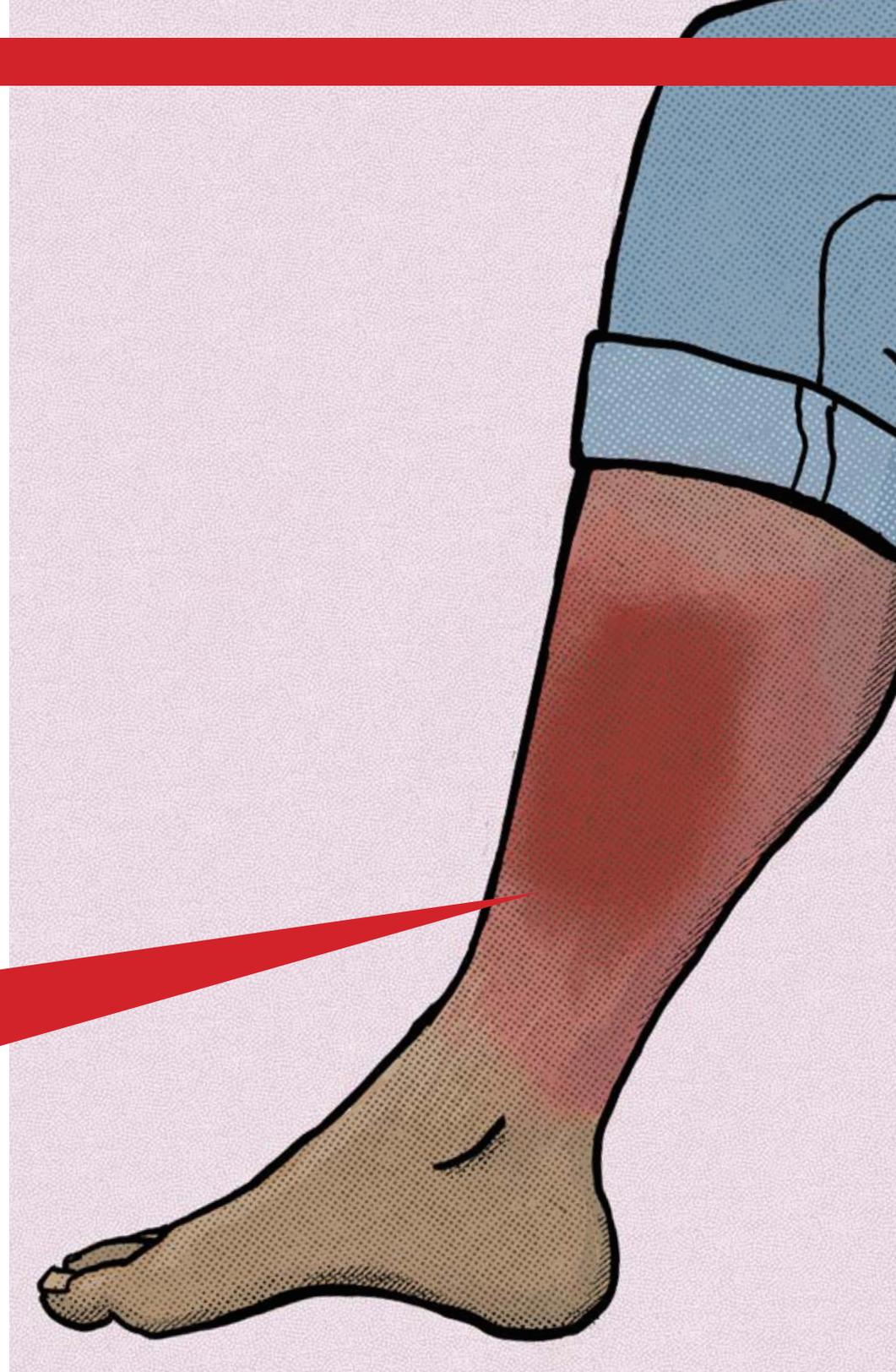
## Treatment

**Antibiotics** (pills or IV drip) are the treatment for cellulitis. **You will need to see a health care provider to get the right kind of antibiotics.** Do not use leftover pills from an old wound or borrow from a friend.

Because cellulitis happens in the deeper layers of the skin, **ointments or creams won't help.** But it's still important to keep the area clean.



*In cellulitis, the infection is happening in deeper layers of the skin.*



## Severe infections and complications

### What are severe infections?

When wounds or injuries are left untreated, they can become infected. If those infections are not treated, **they can make you really sick**. Only a medical care team can treat these conditions. You cannot fight them off on your own.

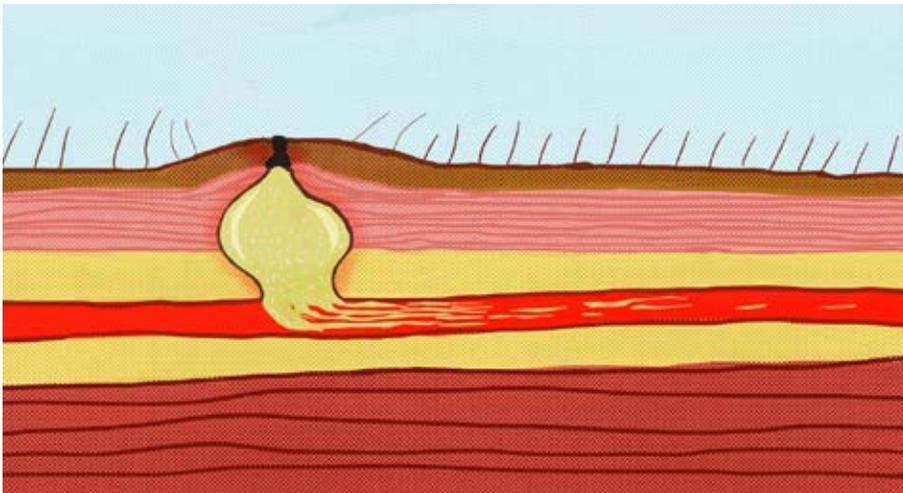
### Causes

Severe infections occur **when simple skin infections spread deeper** into muscle, bones, the heart or bloodstream. Severe infections can also be complications of pneumonia, urinary tract, or other infections.

### Treatment

Once an infection travels to a deeper part of the body it is much harder to treat. **Many of these infections can be permanent** or require weeks in the hospital or surgery. The best treatment for severe infections is **prevention**. Prevent infection by **caring for your wounds and simple skin infections** as soon as possible. This includes:

- Keeping your injuries **clean and covered**
- Keeping dried out wounds moist **to promote healing**
- **Clearing excess** fluid, gunk, and debris away from any wounds
- **Seeking help** if a wound is getting worse



An abscess leaking its contents into the bloodstream. When bacteria enter the bloodstream it is called **bacteremia** and may result in severe infections.

## Severe infections: Sepsis

### What is sepsis?

Our immune systems help our bodies fight off infection. But sometimes, immune systems can overreact. **Sepsis is a life-threatening overreaction to an infection.**

Sepsis can cause a dangerous and drastic drop in blood pressure which can **kill**. Sepsis comes on fast and is hard to reverse once it gets rolling, so **it should always be treated as an emergency.**



**Fever/chills/weak**



**Dizziness**



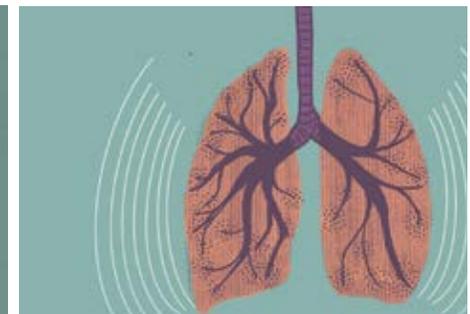
**Pale**



**Confusion**



**Heart racing**



**Short of breath**

## Severe infections: Sepsis (cont'd.)

### Signs and symptoms

#### Most common:

- Fever and chills
- Shortness of breath
- Weak pulse
- Weakness/flu-like feelings
- Confusion
- Fast heart rate (above 110 beats per minute), or sometimes low heart rate below 50
- Unexplained back pain
- Pale/gray skin

#### Less Common

- Muscle pain
- Severe abdominal pain
- Sudden swelling in legs/abdomen
- Urinating less

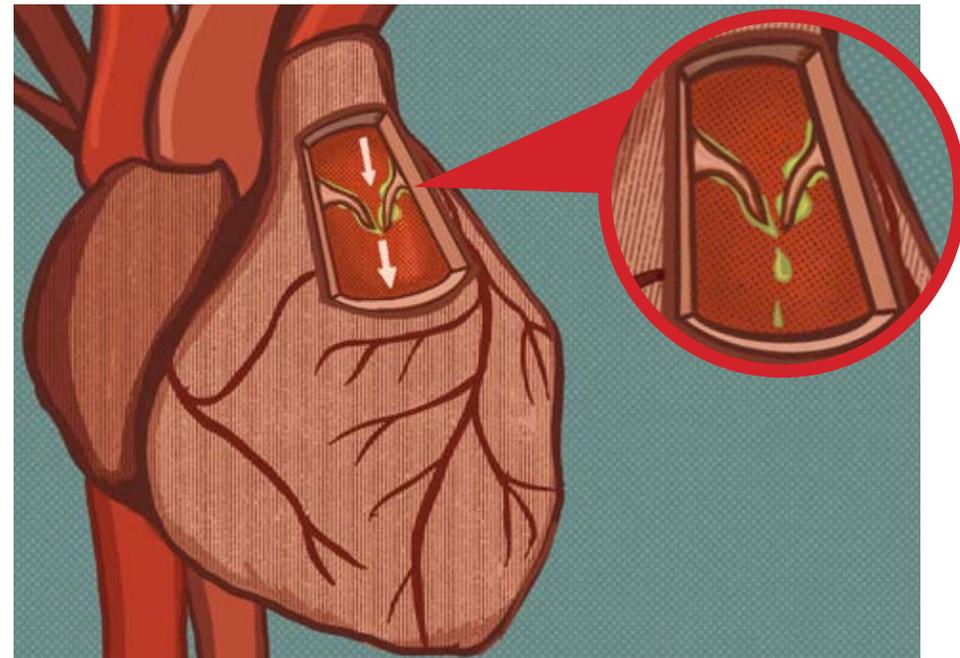
**Sepsis is life-threatening!** As a rule, if something (or someone) feels wrong or scary, trust your gut. Find another person to talk to about, or just take the person to the hospital.

### Treatment

**Sepsis is a medical emergency.** Any concerns for sepsis should involve **emergency services**.

Hospital treatment for sepsis usually includes **antibiotics and IV fluids**. Many patients with sepsis need to be **treated in an intensive care unit on ventilators and with strong medicines** to increase blood pressure.

## Severe infections: Endocarditis



Endocarditis is **an infection inside the heart**, which can cause permanent damage. It is rare, but **some people are at higher risk for getting it**. This includes people who:

- Inject drugs
- Have had endocarditis before
- Have had heart valve problems in the past

**Endocarditis can cause many life-threatening health problems**, including congestive heart failure (CHF) or stroke. **Treatment for endocarditis includes IV antibiotics and possibly heart surgery** to replace the affected valve. You could be on antibiotics for up to 6 weeks.

#### Common signs and symptoms of endocarditis include:

- Unexplained fever lasting more than a week
- Weakness or the feeling like you may pass out
- Shortness of breath or chest discomfort
- A new heart murmur, for those trained to use a stethoscope

## Severe infections: Necrotizing fasciitis

aka 'neck fash' or 'flesh-eating bacteria'



**Necrotizing fasciitis** is a rare kind of infection that takes place **in the deeper layers of the skin and muscles**. It is caused by **bacteria that release poisons** that quickly destroy the tissue.

**Necrotizing fasciitis will always require emergency care and hospitalization.** This infection can affect anybody but is more common among people who inject drugs.

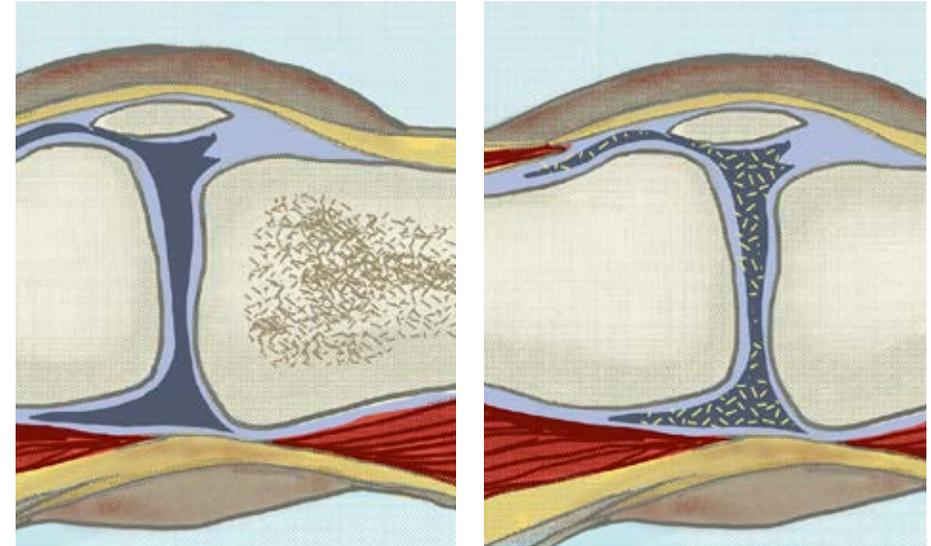
Signs and symptoms of necrotizing fasciitis include:

- **Intense pain** that may feel surprisingly severe, based on how the infection looks on the surface of your skin
- **A simple skin infection** (often abscesses or cellulitis) that begins to **spread quickly, especially if the skin is turning black, purple, or green**
- **Flu-like symptoms:** fever, fatigue, confusion

The key to surviving necrotizing fasciitis is catching it early. Treatment for necrotizing fasciitis involves IV antibiotics, CT scans, and surgery.

## Severe infections: Bones & joints

Osteomyelitis and septic arthritis



**Osteomyelitis** is an **infection of the bone**. It is difficult to identify, so you should suspect osteomyelitis if you have:

- An **exposed bone** or tendon in your wound
- An 'open fracture' where the sharp edge of a broken bone poked through the skin
- **Deep wounds** that are slow to heal and often reappear in the same spot
- **Ongoing deep pain or tenderness near a bone** or joint and an unexplained fever

**The people most at risk** for this infection include:

- People who inject drugs
- People with diabetes
- People with heart disease
- People who have had it before
- People who have had orthopedic surgery that involved metal or plates

A medical team would diagnose osteomyelitis through blood work, x-ray, or CT scan. It is treated with IV antibiotics. Surgery is a last resort. Delayed treatment can cause bone loss, amputation, chronic pain, or deformity.

**Sudden and painful swelling of a joint** may be a sign of infection in the joint (**septic arthritis** or a **septic joint**). Infection inside a joint (especially the knees) is hard to get rid of and will require professional medical attention. It often requires surgery. Seek medical advice when feeling ill with new joint pain with even slight movement.

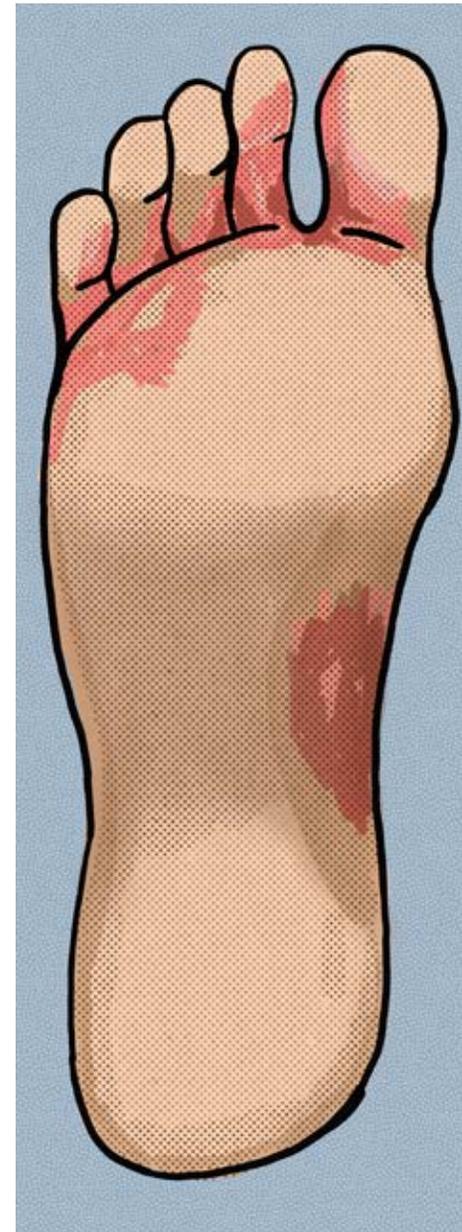
# FOOT CONDITIONS



Foot conditions **can cause great pain and discomfort**. This section focuses on **very common foot conditions** often experienced by people living on the streets:

- Athlete's foot
- Toenail fungus
- Foot care
- Calluses & corns
- Trench foot

## Foot conditions: Athlete's foot



Athlete's foot is a **rash** that usually starts between the toes. It can spread to other areas of the foot. It can be painful and/or itchy. Breakdown of the skin from untreated **athlete's foot can lead to bacterial infections**.

### Causes

Athlete's foot is **caused by a fungus**. Fungi like to grow in warm, dark, and moist places, like socks and shoes. You can get athlete's foot if you don't dry your feet before putting socks and shoes on, or if you wear dirty socks for too long. It is also contagious, so walking barefoot on surfaces where others do the same—such as pools and showers—can put you at risk for getting athlete's foot.

### Treatment

**Letting your feet/shoes/socks dry in open air** is the best way to prevent athlete's foot. Creams, such as clotrimazole (Lotrimin), also help once the fungus has taken hold. You can get these creams from any pharmacy and **without a prescription**. Dollar stores usually carry this item.

**Wash your feet**, if you can, and then **apply the antifungal cream twice each day** until the rash is gone. **Always wash your hands** before and after applying the cream to help limit the fungus's spread.

*Athlete's foot has the medical name of 'tinea pedis.' It is caused by a microscopic fungal infection.*

## Foot conditions: Toenail fungus

Toenail fungus **grows within the toenail**. It causes the toenails to become thick, brittle and discolored (yellow or gray). Toenail fungus **can be very hard to treat**.

### Causes

People get exposed to the fungus from dirty socks and shoes, or even dirty nail clippers and files. The fungus can't harm you, but overgrown nails can dig into healthy tissue and cause pain and wounds.

### Treatment

A visit to a foot doctor (podiatrist) can help severe cases. They will cut and thin out your nails. They may give you special toenail polish or antifungal medications. The antifungal medication only cures the fungus about half the time and is hard on your liver, so it's not a good option for everyone.

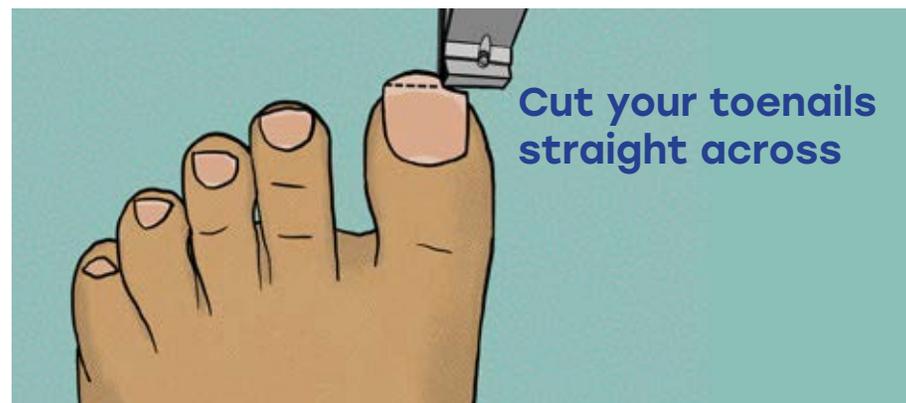
**You can treat minor toenail fungal infections on your own with tea tree oil or Vicks VapoRub.** It's best to put this on your nails when they're softened after washing your feet. This probably won't cure the fungus, but will help stop it from getting worse.

**You can treat thick, overgrown nails by clipping and filing,** but be sure not to go too thin. Don't use the same clipper or file on nails that aren't infected. It may be better to leave this to a professional.



*Mild cases of toenail fungus (left) the toenails may be brittle and thin. In more severe cases of toenail fungus (right) the nails can become large, misshapen, and may be painful. The medical terms for toenail fungus are 'onychomycosis' or 'tinea unguium.'*

## Foot conditions: Toenail & foot care



### Toenail care:

**Trim toenails with clean nail clippers only!** Do not use scissors, knives, picks, or other sharp objects. Avoid digging out 'toe jam' under the nail with sharp objects as they can cut the skin and damage the underside of the nail, causing the nail to become misshapen or thicken over time.

When you cut the nail, cut straight across, leaving about 1/8 inch of overhang. You can use a file on sharp corners to help prevent ingrown toenails. Repeat every 6–8 weeks.



### Routine foot care:

Soak feet in water, gently wash with soap, and pat them dry. Use a piece of fabric or gauze to 'floss' between the toes to clean out any gunk. Soaking will also soften skin and nails which can be helpful for trimming thick nails and filing down calluses. But the soft skin makes skin injury more common, so be extra careful. Foot wounds heal slowly. After feet are dry apply Vicks or an essential oil to nails and in between toes, if desired.

## Foot conditions: Calluses & corns

**Calluses** are extra-thick buildup of skin on your feet, caused by friction or pressure. **Corns** are similar, caused by pressure under bony parts of the foot.

To treat painful corns and calluses, first clean the skin. Then use a nail file or pumice stone to gently rub down the thickened skin, just like using sandpaper. Go slow and don't overdo it. It's better to do this a little bit over several days rather than going too far at once and breaking skin. You may need to repeat this every 4–8 weeks.

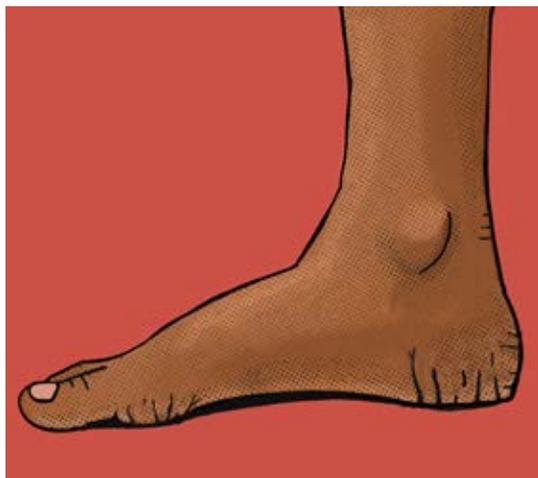
Newer, better-fitting shoes or inserts may help if available. Moleskin or another barrier between your foot and the shoe can decrease rubbing and slow down corn and callus formation. This can be picked up at most dollar stores.

See a medical provider for assistance if you have really thick or painful skin buildup. They can get the thickness to a manageable level for you by using special tools. And they can teach you how to keep up the care yourself.

**Do not use sharp items on your skin!** Even with thick corns and calluses it's easy to damage the skin damage and cause an infection.



A foot corn



Foot calluses

## Foot conditions: Trench foot

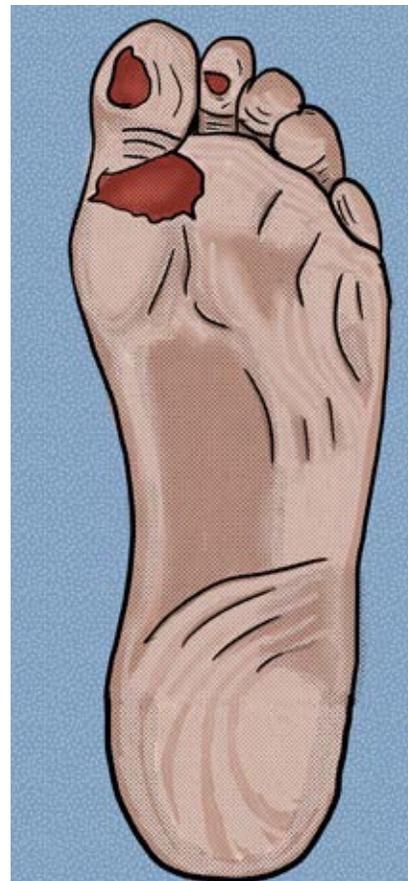
Trench foot is a **very painful** condition where **blisters form on the soles of the foot**. It causes damp, wrinkly feet. **Trench foot occurs in 4 stages:**

- 1. Cold:** Feet are numb, wrinkly, and pale. They might feel like bricks.
- 2. Warm:** Once you return to heat, the skin stays pale for several hours or days.
- 3. Hot:** Skin becomes bright red and painful. Blisters can occur. This can last days to weeks.
- 4. Cool:** Feet stay sensitive to cold for life, chronic pain may happen

Trench foot blisters can break open very easily. Trench foot **can cause skin breakdown, which can lead to bacterial and fungal infections.**

### Causes

Being exposed to **too much water and cold** can cause trench foot. It **doesn't have to be freezing** outside for trench foot to start.



The best way to avoid trench foot is to **keep your feet warm and dry. Wear clean and dry socks and shoes as much as possible.** Try not to wear your shoes too tight—this can decrease blood flow and make trench foot more likely.

### Treatment

If you have trench foot, limit walking to give the feet time to heal. Blister pads for the feet may be helpful. Sleeping bare-foot can help, but only if the feet can be kept warm while sleeping. If shelter is an option, seek it out.

**When rewarming feet, GO SLOW.** It is better to return feet to normal temperatures than to warm or hot temperatures. Elevate feet above the level of the heart. **Be careful not to expose the feet to direct heat** like a fire or a gas heater. This can lead to burns.

**Trench foot can take a long time to heal.** While your feet are healing, **watch for signs of infection.**

Trench foot is also known as 'immersion foot' or 'jungle rot'.

# RASHES & ECZEMA



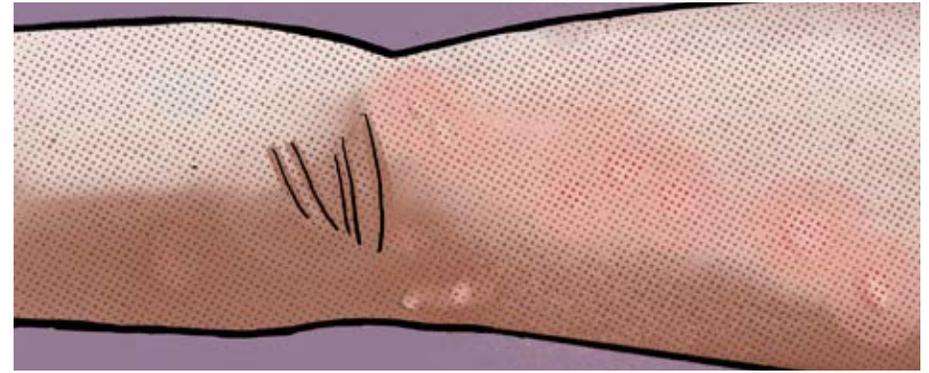
In this section we will talk about skin inflammation and how to help soothe common symptoms. **Rashes** are usually an **inflammation of the skin**. There are a million types of rashes and even good doctors don't always know the cause. A health care team might try to figure out if you're allergic to something or if you're having a skin infection.

**Eczema** is a type of **skin inflammation that can be caused by something you're allergic to**. The cause can be **food, something in the environment, something you touch**, or be inherited from your ancestors (**genetic**). It can also happen out of the blue.

**To treat eczema**, begin by washing your hands and cleaning the area with soap and water:

- If the rash is dry or scaly, apply a skin ointment like **Eucerin** (simple, cheap, and over-the-counter).
- If it's itchy, consider using **Benadryl** (*diphenhydramine*) cream or pills.
- If it's warm, pink, or irritating, you can try **hydrocortisone** 1% cream for a week or two. Apply a thin layer to affected area twice a day. Stop if it's not helping.

## Rashes: Hives & impetigo



**Hives** are common and usually go away on their own. They often occur after starting a new medication or eating foods that you might be allergic to. If you're short of breath or the hives involve your lips or tongue, either go to the hospital or call 911. **If they are mild and only involve your skin, time and diphenhydramine (Benadryl) should make them better.**



**Impetigo** is a skin infection caused by certain bacteria. It has a very distinctive look of 'honey-crusted' sores, usually around the mouth, nose, chin, arms, or legs. There's usually not much pain, but the sores can itch. Impetigo can also start when meth or other drug use makes a person feel like there's bugs crawling under their skin and they start picking at sores. Open sores can easily get infected with bacteria. Changing habits is a first step whenever possible.

### Treatment:

- For small patches, the best treatment is a prescription-only antibiotic ointment called mupirocin.
- You can try regular antibiotic ointment, but this might not cure it.
- If there are a lot of sores, you may need prescription oral antibiotics.
- You can gently clean the crusty sores with soap and a washcloth. But watch out—the sores and fluid from them can spread the rash to other parts of the body or other people.

## Rashes: Poison ivy & poison oak

Poison ivy and poison oak are **plants that can give you an itchy rash** if you touch them. The oil produced by these plants irritates the skin. It usually takes a day or two after contact with the plant before the rash starts.

### Treatment

The oils made by poison ivy/oak **will not come off your skin with water alone**, but will need to be cleaned with soap. After washing with soap and water, treat the area with **calamine lotion** or **baking soda** to dry it and ease irritation. **Benadryl** can also help ease itching and is available both as a pill or a cream to put directly on the rash. Steroid creams, such as hydrocortisone 1%, can also help for small itchy patches.

Poison ivy/oak oils can be carried on things like animal fur and clothes. So, **touching animals or articles of clothing that have oils from these plants on them could give you a rash.**

Really bad poison ivy/oak can improve with **steroid pills**. These are **prescription medications**.



Poison ivy (left) also has three leaves from one stem. It's leaves are a shiny dark green on one side and lighter on the other. The stem of each leaf looks reddish. It often has exposed root systems and white berries. It looks like other ivies. Poison oak (on the right) has leaves of three and a wavy leaf silhouette. Poison oak is typically small and may grow in vines or as small shrubs. In later summer and fall it can be orange to red in color.

## Rashes: Treatment strategies



Typical treatments for rashes are focused on **easing the discomfort they cause**. Many **treatments are available without needing a prescription**, including:

- Anti-itching creams like **calamine lotion**
- **Hydrocortisone** 1% cream to control inflammation
- **Benadryl** (diphenhydramine) to suppress itching
- **Antibiotic ointment**, for rashes caused by **bacterial infection**

Since rashes are often a sign of allergy or sensitivity, **be aware of other more dangerous allergic reactions**, including:

- **Swelling** of the lips and tongue
- **Wheezing**
- **Shortness of breath**

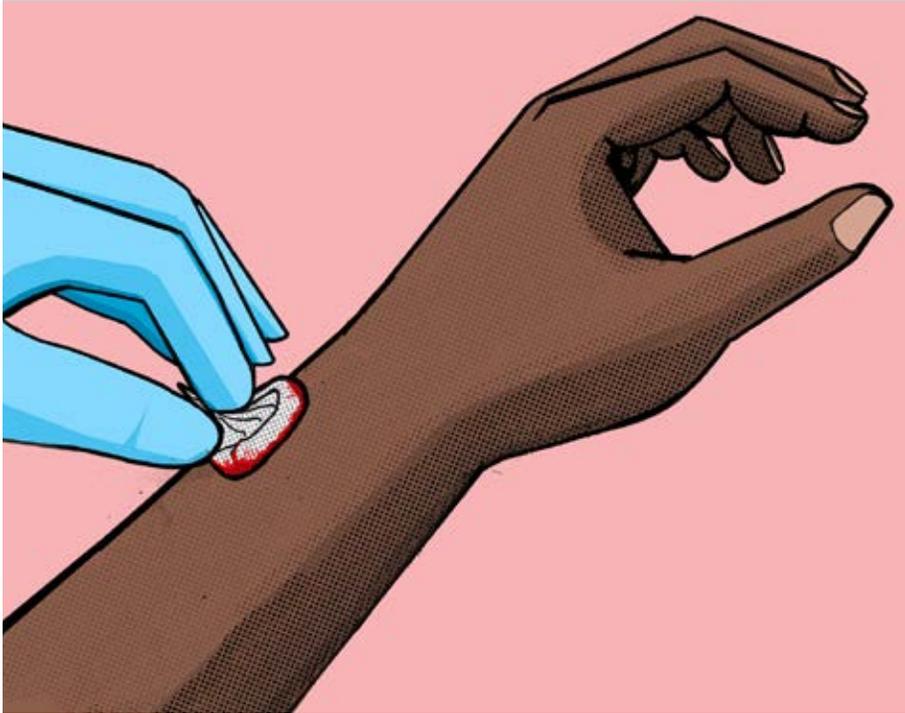
### When to see a doctor

For certain rashes, you **may need to visit a primary care provider or urgent care**. These include:

- **Large** rashes
- Any **sudden purple rash**
- Rashes that are **not responsive to over-the-counter medications**
- Rashes with **extensive blistering**

**If someone is having trouble breathing, always call 911.**

# INJURIES



*Apply pressure and elevate to stop bleeding.*

Getting injured **puts you at risk for infection**. Some injuries happen fast. Others can develop over time. It's important to monitor these injuries to minimize pain and avoid infection. This section will go over **common injuries, how to care for them, and when to seek medical advice**. It will cover:

- Cuts & scrapes
- Frostbite and cold injuries
- Burns
- Skin ulcers & nonhealing wounds
- Bites

## Injuries: Cuts & scrapes

Cuts and scrapes are **injuries that bleed**. The first goal of treatment of cuts and scrapes is to stop the bleeding, the second is to prevent infection (see page 13).

### When to call 911

- Deep injuries to your abdomen, chest, back, neck, or head
- Bleeding that is not stopping after holding pressure for 10 minutes

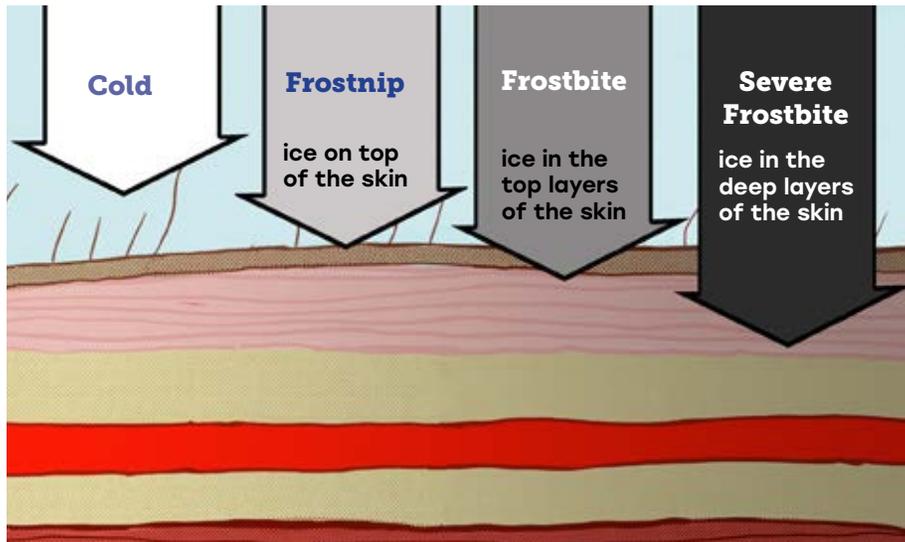
### When to go to the emergency room or urgent care

- You struggle with normal movement (especially with cuts on your hands or feet)
- The cut is big, open, and can't be easily kept closed
- Something poked a deep hole into your skin, like a nail
- Deep face cuts involving your eyes or eyelids, nose, lips, or earlobe

### Treatment for less severe injuries

- **Apply pressure for 10 minutes to stop the bleeding.** Avoid placing a tourniquet unless directed to by a 911 operator.
- **If the injury is on an arm or a leg, elevate** it to help slow down the flow of blood.
- **Once the bleeding has stopped, look at the wound. If deep or gaping, seek medical help.** Stitches may be needed. Deep cleaning by a medical professional can help avoid infection.
- **If the wound is not severe, clean** the wound thoroughly. Reapply pressure afterward if it starts bleeding again.

# Injuries: Frostbite



## What is frostbite?

**Frostbite is damage to your skin** caused by freezing temperatures. It can be **extremely painful** and can cause serious health conditions. It's important to know the signs and causes of frostbite to prevent permanent damage.

## Causes

Frostbite is caused by prolonged exposure to freezing temperatures (below 32°F). Exposed parts of the body most likely to get frostbite are the toes, fingers, ears, nose, and penis. It is important to keep these areas warm with dry gloves, socks, and other coverings. **Get indoors if you cannot keep these areas warm during freezing conditions!**

**Hypothermia** is when the whole body temperature drops due to being out in the cold without sufficient protection. This is often a life threatening condition. People with hypothermia may act sleepy or confused. Being drunk or high can make someone unaware that they are getting hypothermia. **It is important to get someone in a warmer environment if they are developing hypothermia. Call 911 if needed.**

**Cold skin that is not in freezing temperatures** can cause itching, redness, numbness and tingling. If it occurs repeatedly and is painful, you may have a condition called **chilblains**. This improves with rewarming but may be with you all your life. There are prescription medications that may help.



**Cold:** Colder temperatures can make your skin turn pale and feel cold to the touch. But that doesn't always mean you have frostbite.



**Frostnip:** Ice crystals form on top of skin. Frostnip is more serious than cold skin. It causes pale or reddened areas. Numbness, pain, or tingling can happen. Symptoms should go away with rewarming. Frostnip reoccurs easily and can lead to pain and numbness in the future.



**Frostbite** is when freezing happens starting in the top layers of the skin. Numbness, pale skin with red blotches, aching, throbbing, or swelling can happen. Clear fluid blisters can also form within 24 hours. There is likely to be skin loss and a high risk of infection.



**Severe frostbite** affects the deeper layers of the skin. Severe frostbite kills tissue and causes pale and waxy skin that feels numb and can be unusually firm. Later on, blistering and gangrene can happen that may require amputation.

## Treatment

- Do not rewarm the affected area if there is a chance of it refreezing.
- Nerve tissue can be damaged from the cold, so beware of rewarming by fire or stove. You most likely won't be able to feel it if you accidentally burn yourself.
- Avoid walking on frostbitten feet if you can.
- Keep your circulation up by avoiding tight clothing.
- If you rewarm the area with water, use warm water, not hot.
- Remember that frostbitten skin is at a higher risk of getting frostbitten again in the future, and will always have an increased sensitivity to cold.

# Injuries: Burns

It's important to **know the different types of burns**. Understanding what kind of burn you have **can help you know how to take care of it**. In general, keeping any burn-related wounds **clean and covered** prevents infection.

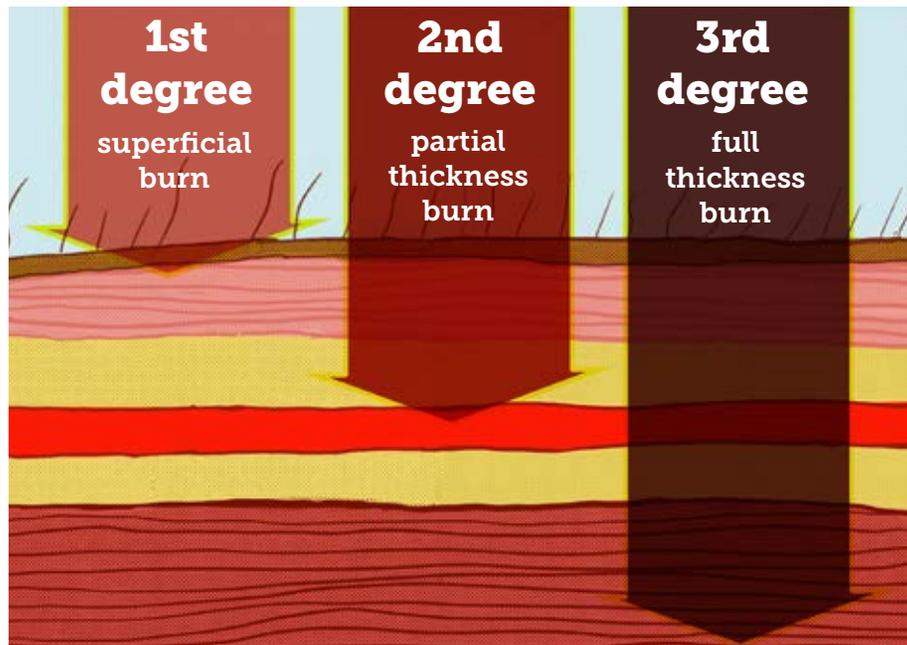
You do not usually need to go to the hospital for a 1st degree burn. But just to be safe, **always seek medical care for burns that make you worry for any reason**.

## Types of burns

**1st Degree—Superficial burn:** Reddened, tight-feeling skin. Painful but should heal with few problems. Sunburn is usually a 1st degree burn.

**2nd Degree—Partial thickness burn:** Blisters. High risk of infection when blisters open. Treat with ointment. Keep clean and covered.

**3rd Degree—Full thickness burn:** White or black, might look leathery. Often no pain in the direct area of the burn because the nerve endings are destroyed. More difficult to heal and scarring will be likely.

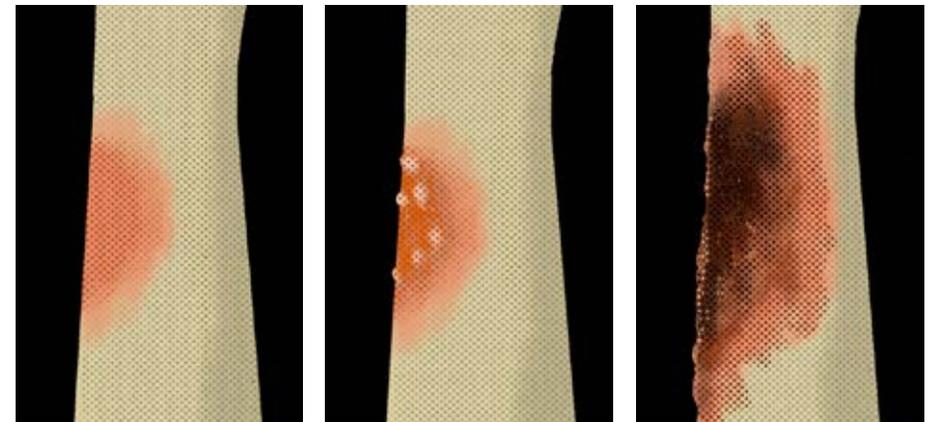


## Treating superficial and partial thickness burns

- **Use cool water to cool the area down.** This can help relieve pain, too. Do not use ice because it can irritate your burned skin.
- **Keep the burn clean** with soap and water.
- **Protect your burn from sunlight.**
- **Use an ointment before covering your burn.** Keeping it moist will help it heal faster.
- **Go to an urgent care** or doctor's office if your burn **starts to look infected**.
- **Take Tylenol or ibuprofen** to help the pain.
- **Aloe vera** can be cool and soothing.

## Go to the emergency department if you have:

- Burn blisters **larger than two hands in size**.
- **A 3rd degree burn**, especially if the burn is bigger than one hand. 3rd degree burns can destroy nerve endings. That means you may not feel any pain.
- **2nd or 3rd degree burns in sensitive places**, such as your face and genitals.
- **A 2nd or 3rd degree burn on your feet or palms.** They can get infected very easily.
- **A 2nd or 3rd degree burn on skin that's over a joint**, like your knees or fingers. Burns over joints can scar easily. Scarring can make it hard for you to move the joint once the burn heals.
- **A burn that goes all the way around a finger, wrist, leg, ankle, or foot.** This can swell up and cut off blood flow.



1st, 2nd, and 3rd degree burns.

## Nonhealing wounds: Skin ulcers...

### What are skin ulcers?

A skin ulcer is a **long-term wound**. Ulcers usually have **an irregular shape** with a **clear edge around a center of raw, moist redness**. They can be very **weepy**, leaking out clear or pink fluid. Some may have a scab that gets in the way of healing.

### Causes

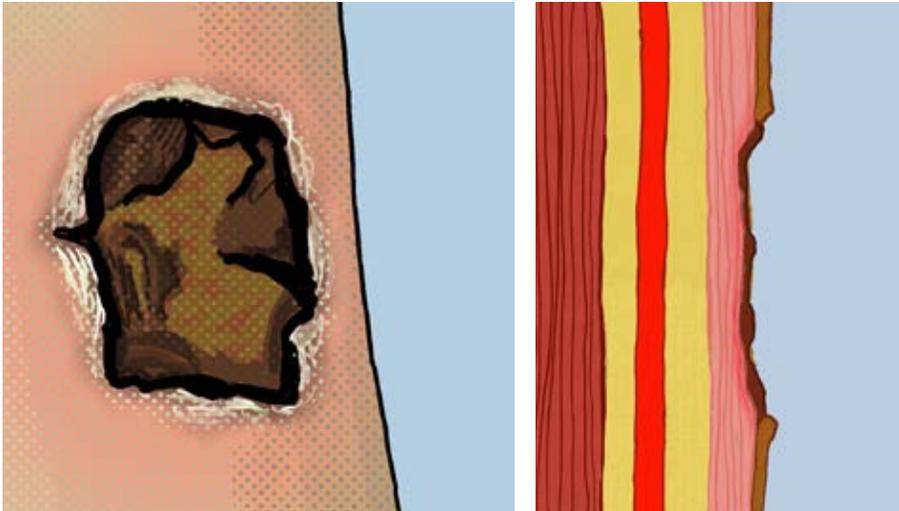
Skin ulcers often begin as a minor injury that just won't heal. They can occur in people who:

- Are **older**
- Have **diabetes**
- Have **heart or liver problems**
- Have **reduced circulation**
- Cannot move from lying or sitting in one position for a long time, causing **bedsores**

Most skin ulcers in younger people or people who do not have the above health concerns are caused by:

- A **lack of soap and water**
- Unhealed, infected, minor injuries
- Standing/walking all day or sleeping sitting up
- Paying too much attention to the ulcer (**picking**). Never pick at a wound.

Ulcers can be **made worse by stimulants** such as **nicotine, meth, or cocaine**. People with diabetes or people with reduced circulation should be seen by a medical professional.



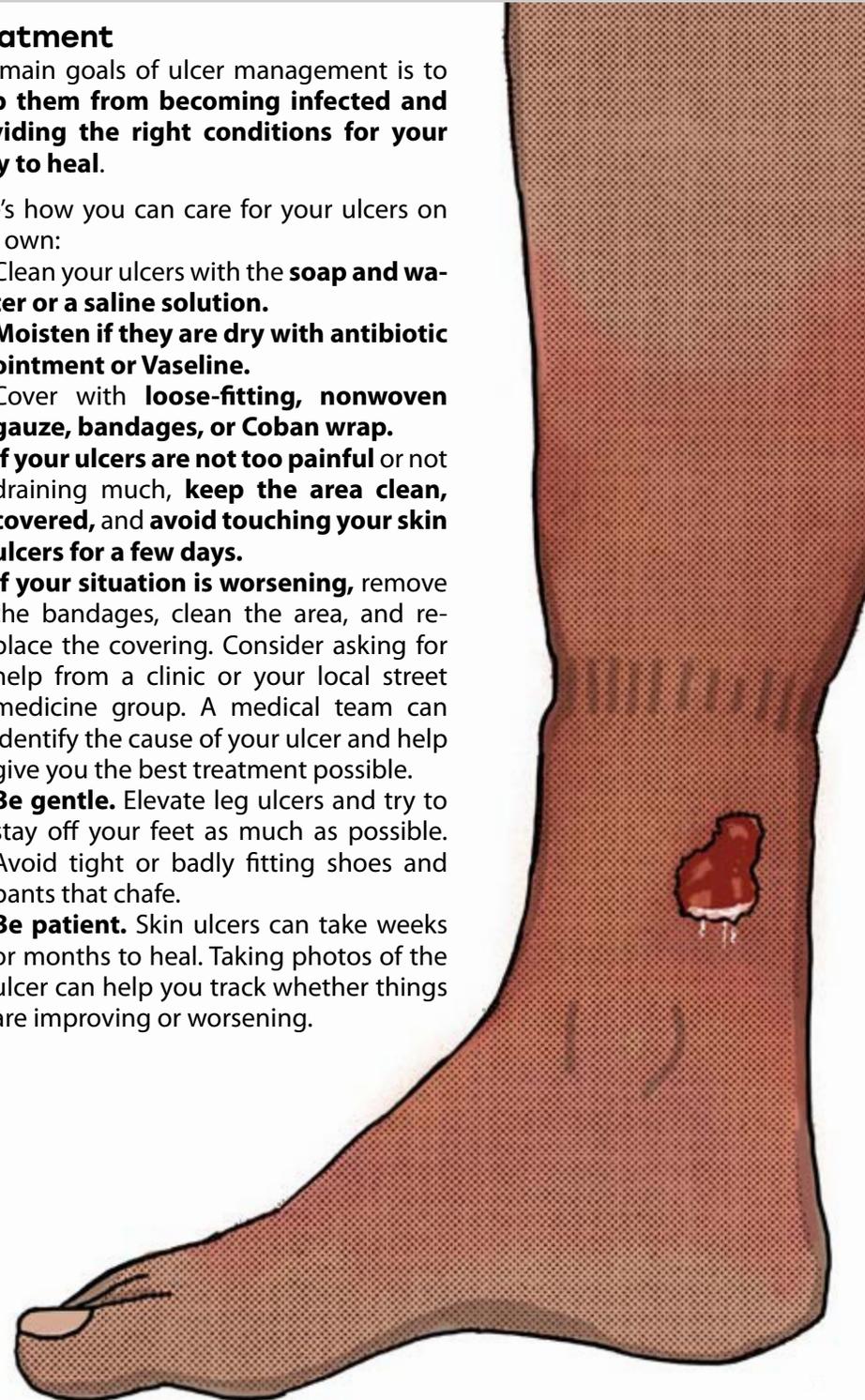
## and sores that won't heal

### Treatment

The main goals of ulcer management is to **keep them from becoming infected and providing the right conditions for your body to heal**.

Here's how you can care for your ulcers on your own:

- Clean your ulcers with the **soap and water or a saline solution**.
- **Moisten if they are dry with antibiotic ointment or Vaseline**.
- Cover with **loose-fitting, nonwoven gauze, bandages, or Coban wrap**.
- **If your ulcers are not too painful** or not draining much, **keep the area clean, covered, and avoid touching your skin ulcers for a few days**.
- **If your situation is worsening**, remove the bandages, clean the area, and replace the covering. Consider asking for help from a clinic or your local street medicine group. A medical team can identify the cause of your ulcer and help give you the best treatment possible.
- **Be gentle**. Elevate leg ulcers and try to stay off your feet as much as possible. Avoid tight or badly fitting shoes and pants that chafe.
- **Be patient**. Skin ulcers can take weeks or months to heal. Taking photos of the ulcer can help you track whether things are improving or worsening.



## Treating skin ulcers (cont'd.)



Cover a draining ulcer with non-woven gauze and then wrap it up—snug but not too tight!

### Treating certain types of skin ulcers

- If a skin ulcer is leaking a lot, use clean bandages to soak up the extra fluid.
- If an ulcer looks dry and is peeling, use ointment like **Vaseline, antibiotic ointment** to help it stay moist.
- **Infected ulcers** are those that are warm, red, and painful. **Keep them clean and covered.** Apply antiseptic treatments like antibiotic ointment or medical honey. There are also specialty ointments that can help fight infection.
- For **gunky ulcers** that release a thick goo or have a dried scab, **gently moisten** if dry, **clean with soap and water.** Avoid picking off any scabs as this can damage the healing skin underneath and may cause bleeding.
- **What about using grocery store honey?** Many people use regular honey to treat wounds, and this may be fine for you. Yet we cannot recommend regular honey because of the possibility of impurities. Medical grade honey is expensive but is worth it.

## Injuries: Animal and human bites

With any bite, always watch for signs of infection (see page 13). A lot of bacteria live in mouths, so **any break in the skin caused by teeth can get infected easily.** This is especially true for cat bites and fight-bites (cuts over the knuckles caused by punching a person in the mouth). Dog, rat, and human bites can cause infection, too.

### Treatment

**Treat minor bites** as you would any infection: clean, moisten, and cover.

### When to go to the hospital

- Deep cat bites that draw blood
- Fight bites or deep human bites
- Bites from any animal that may transmit rabies. These include bats, raccoons, foxes, and skunks, or any animal that acts oddly or bites without provocation. Rats, squirrels, possums, and rabbits don't cause rabies.

Hospital treatment may involve deep cleaning, stitches, staples, or antibiotics. All deep cat or human bites need antibiotics. If you can't go to see a doctor in person, some will give you antibiotics after a phone call.

### Information about Tetanus

- Tetanus ('lockjaw') is a severe, painful infection caused by dirty wounds. It is often fatal. Symptoms don't start for days to weeks after the injury.
- Tetanus can be easily prevented with a vaccination every 10 years. Most kids have been vaccinated, but it may have worn off in adults.
- If you get a cut that is contaminated with dirt and don't remember when you last got a tetanus shot, get a booster from a clinic within 1–2 days!



Keep an eye on cat bites and fight bites as they can get infected easily.

# BUGS



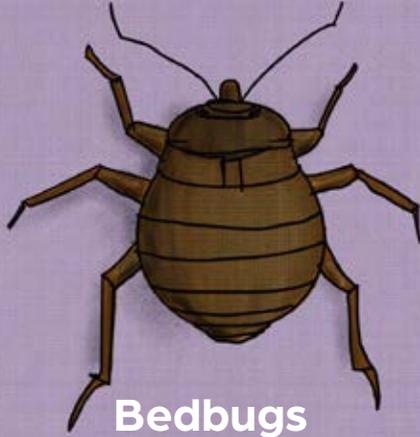
Head/body lice



Pubic lice



Scabies



Bedbugs



Spiders

Bug infestations can be very uncomfortable. Some bugs will live on your skin. Others can infest your bedding and bite you. **Bugs can cause infections or carry diseases.** It's important to remove bugs from your skin and bedding to stay as healthy as possible. This section will cover:

- Lice
- Scabies
- Bedbugs
- Spiders

## Bugs: Lice

Lice are **small bugs that live on human skin**. They bite you so they can eat your blood.

**You can get lice anywhere on your body where you have hair.** Pubic lice are rounder and are called crabs. Head, hair, and body lice are longer.

### They spread through:

- Skin-to-skin contact with someone who has lice
- By sharing clothing, hats, towels, or bedding with someone who has lice

**Lice cannot jump.** They are more active in the dark and at night.

### Signs and symptoms

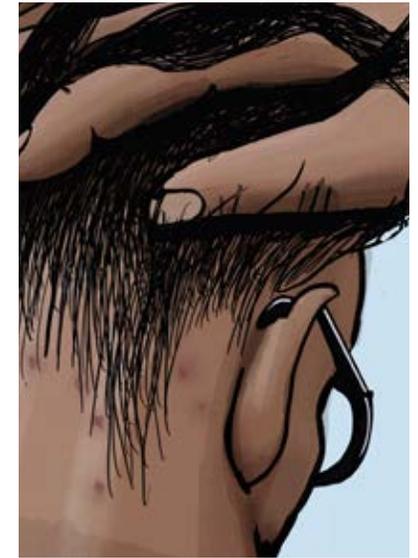
**You can usually see lice and their eggs (nits) that stick to the base of the hair.** Lice usually live close to the scalp and groin to stay warm. **Their bites look like pimples and are itchy.**

### Treatment

You can get medications from any grocery store or pharmacy without a prescription. **Rid or Nix** are two treatments for lice.

**You will need to treat your hair twice, roughly 1–2 weeks apart.** The first treatment will kill living lice and the second treatment will kill newly hatched babies. Having a friend comb out the lice eggs will also help. Shaving your hair will also eliminate lice if you are willing to do so.

**Clean all your clothes and bedding.** Wash and dry on hot, if you can. Sealing clothes and bedding in a plastic bag for two weeks will also kill lice.



## Bugs: Scabies

Scabies are **extremely small bugs, too small to see without a microscope**. Scabies burrow into the upper layer of the skin where they live and lay eggs.

**Scabies like to live in skin folds and warm parts of the body, such as:**

- Under breasts and genitals
- On the belly and butt
- Between fingers and toes
- Scabies rarely affect the head

**They spread through** skin to skin contact with someone who has scabies. Spread by sharing of clothing, towels, or bedding is rare.

### Signs and symptoms

Scabies leave a very itchy and swollen rash. Sometimes, the rash is shaped like a line. Without treatment, scabies can last for months or even years.

### Treatment

**Elimite lotion** is a prescription medication for scabies but is expensive (most insurance plans cover the costs). You will need to apply this treatment twice, a week apart. **Even after treatment, it can take weeks for the itching to stop.**

**To prevent spread or reinfesting yourself after treatment:**

- All clothing needs to go through the hot cycle in a dryer. **Scabies die above 120 degrees.**
- Large items like sleeping bags and cushions can be left untouched in a dark place for several days. **Scabies die if off the human body for more than 2–3 days.**

There are also prescription pills that can be helpful. This might be a better option if decontamination is impossible.



## Bugs: Bedbugs



Bedbugs **live in bedding and clothes**. They are **flat and brownish-red in color, about the size of a pin head**. They will bite you to eat your blood.

Bedbugs can **live for 2–3 months without eating**.

They **don't like heat**, including heat from your body. **They are mostly active at night** and will bite you as you sleep.

### Signs and symptoms

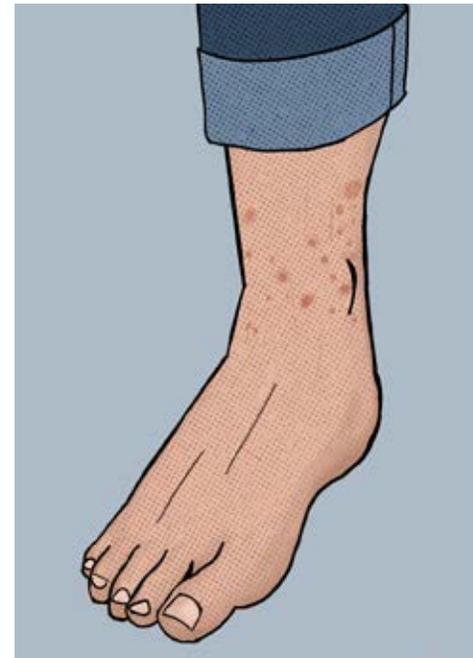
Bedbug **bites can be large and very swollen**. They itch and burn.

### Treatment

Because bedbugs don't live on the human body, treating (or tossing) the clothing and bedding is all that's needed.

You can kill bedbugs in your clothes and bedding by **washing them on hot and drying them**. You can also get rid of them by **freezing your things**.

Itchy bites on your skin can be treated with hydrocortisone 1% cream until they heal.





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