

JASE MEDICAL
FIELD GUIDE
TO
WOUND CARE

Proper First Aid Steps
+
When to Use Antibiotics

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INTRODUCTION

Most minor cuts and scrapes are a part of life, but knowing how to properly care for them can expedite healing, prevent infections, and reduce medical visits.

HOW TO MANAGE

If you are in a situation where you need to take care of a wound on someone else or yourself, in the following pages you'll learn the basic steps you need to know. Before attending to minor wounds, make sure your hands are clean and wear gloves if you are caring for someone else.

STEP 1

STOP THE BLEEDING

Smaller cuts and scrapes usually stop bleeding on their own, but larger cuts and wounds on vascular areas (ex: like the scalp or hands) can bleed more.

USE GENTLE, BUT FIRM, PRESSURE WITH A GAUZE PAD OR CLEAN CLOTH ON THE WOUND FOR ABOUT 5-10 MINUTES.

If the injury bleeds through, add more layers of gauze or clean cloths. Avoid taking off the gauze and looking at the wound frequently as this will disrupt the body's natural clotting process. If necessary and possible, elevate the wound above the heart to help slow the bleeding.





IF THE WOUND IS BLEEDING IN SPURTS AND CANNOT BE STOPPED WITH PRESSURE, THIS COULD MEAN AN ARTERIAL BLEED. *THIS NEEDS EMERGENCY TREATMENT, SO CALL 911 OR GET MEDICAL HELP IMMEDIATELY.*

If this occurs on an arm or leg, putting pressure on an area above the wound may help slow down bleeding. Note that applying a tourniquet should only be used in emergency situations as tourniquets applied correctly should be uncomfortable since they need to be very tight and they can cause nerve and muscle damage. Always be sure to write down the time you applied a tourniquet and tell emergency personnel when they arrive.

Be wary of blood clotting powders. These should only be used in emergency situations as they can cause scarring and potentially embed infection. These should not take the place of appropriate pressure to the wound.

STEP 2

CLEAN THE WOUND

Once the bleeding has stopped or slowed down significantly, it needs to be cleaned to help prevent infection. Washing the wound with water is one of the more important steps to prevent infection!

YOU DO NOT NEED ANY SPECIAL CLEANING SOLUTIONS LIKE HYDROGEN PEROXIDE, ALCOHOL, OR IODINE AS THEY MAY IRRITATE THE WOUND. RINSING WITH REGULAR TAP WATER AND SOAP IS ADEQUATE FOR MOST MINOR WOUNDS.

If needed, use a pair of tweezers to remove dirt and debris left after washing, but be mindful not to cause further damage. Seek medical help if you cannot easily remove or there are embedded pieces of debris.



STEP 3

PROTECT THE WOUND



After washing, you may let the wound air dry or use a clean cloth or gauze to lightly pat dry. Avoid using cotton balls or fabric that has lint so strands from these materials do not get stuck in the wound. Wounds heal more rapidly when they are kept moist compared with wounds that dry out, so applying a thin layer of petroleum jelly (like Vaseline) can help protect the wound and promote healing. There is actually no need to apply over-the-counter antibiotic ointments. Multiple studies have shown no benefit of using these antibiotic ointments over plain petroleum jelly. They may even cause more harm than good, as they are a common skin allergen and may disrupt skin flora that is important for healing.

AFTER APPLYING THE OINTMENT, COVER THE WOUND WITH A PROTECTIVE BANDAGE OR STERILE GAUZE AND TAPE. THESE BANDAGES ARE TYPICALLY CHANGED ONCE PER DAY TO AVOID DISRUPTING THE WOUND HEALING ENVIRONMENT, ALTHOUGH IF THE BANDAGES GET WET OR DIRTY, THEY MAY NEED TO BE CHANGED MORE FREQUENTLY.

STEP 4

MONITOR

Thorough cleaning, irrigation, removal of debris, and appropriate protection should allow small wounds to heal normally in about 7–10 days (larger wounds may take longer), but it is important to continue to monitor your wound(s) as they heal. The body has an amazing ability to repair itself, so most of the time you will be witnessing normal healing with the formation of a scab, decrease in swelling, formation of new tissue, and then scarring and/or decrease in size of the wound; however, it is important to notice any deviation from normal healing.

Medications available in the Jase Case that can be used for wound infections include: Amoxicillin–Clavulanate, Ciprofloxacin, Clindamycin, Doxycycline, Trimethoprim–Sulfamethoxazole, and Metronidazole.*

The most likely complication in wound healing is infection. Hopefully, the proper wound care detailed above will help prevent any complications, but sometimes the bacteria that normally live on our skin (like Group A Streptococcus or Streptococcus pyogenes), or encountered in the injury (like oral bacteria from an animal or human bite) enter the body through the wound. In this instance you may notice symptoms like redness and warmth of surrounding tissues, increased pain, fever, and the presence of creamy white fluid (pus) that may have a bad odor.

Wound infections can spread quickly if not treated promptly. An antibiotic or other medical intervention will be needed if these symptoms are present, so be sure to follow up with a medical provider if you notice any of these symptoms, especially if caused by a bite.

MOST WOUNDS WILL NOT NEED ANY ANTIBIOTICS TO HEAL PROPERLY, ESPECIALLY IF THERE ARE NO SIGNS OF INFECTION AFTER THE FIRST FEW DAYS, BUT THERE MAY BE INSTANCES WHERE PROPHYLACTIC ANTIBIOTICS MAY BE HELPFUL TO PREVENT INFECTION.

The type, cause, and location of the wound will help dictate this decision. Wounds that are especially contaminated or those that had prolonged contact with non-potable water or contaminated dirt/debris, wounds caused by a bite (from a human or animal), or wounds near sensitive body parts (like the hands, feet, face, neck, or genital area) are all reasons to start an antibiotic prophylactically. It may also be prudent to start prophylactic antibiotics in someone who is diabetic or is immunocompromised.



If starting prophylactic antibiotics, it is important to consider common pathogens (like bacteria or viruses) that may have been encountered in the injury. For example, animals could leave deep puncture wounds which deserve special consideration for prophylactic antibiotics (such as cat bites).

Medications available in the Jase Case that can be used for prophylaxis include: Amoxicillin–Clavulanate, Ciprofloxacin, Clindamycin, Doxycycline, Trimethoprim–Sulfamethoxazole, and Metronidazole.*

Based on the circumstances following a wound, you may want to consider other pathogens like rabies, tetanus, hepatitis and HIV. Although rare, being infected by one of these can be deadly if left untreated. **Make sure your tetanus vaccination is up to date, especially after a wound.** Tetanus is a life threatening bacteria that is present in soil, dirt, and feces. Adequately cleaning a wound can reduce the risk, but because of its seriousness, staying up-to-date with tetanus vaccination is the best way to prevent this. Another concern with animal bites is rabies. The most common animals to carry rabies in the United States and Canada are raccoons, skunks, foxes, and bats. In resource-poor regions of the world, stray dog bites can transmit rabies. Note that some bats have incredibly small teeth so they may not leave a visible bite mark. You should follow up with a medical provider to discuss rabies prophylaxis if you have been in contact with any wildlife or unfamiliar animals, particularly if you have been scratched or bitten. Human bites may need prophylaxis against HIV and hepatitis. The risks for these are low unless any blood exposure occurred.

WHEN TO SEEK FURTHER HELP

THE FOLLOWING ARE REASONS YOU SHOULD FOLLOW UP WITH YOUR MEDICAL PROVIDER:

- Wound has jagged edges
 - Wound is more than a quarter inch deep, or you can see fat, muscle, bone or any other deeper structures
 - Wound is on the hands, feet, face, neck or genitals
 - The edges of the wound are far apart and cannot be brought closer together with the use of a normal bandage
 - The wound has dirt or debris that will not come out with washing
 - The wound and/or surrounding area is very sore or red
 - Moving causes pain
 - The wound is oozing or leaking thick, creamy, grayish fluid or has a bad odor
 - You have a temperature over 100.4° F
 - You see red streaks near the wound
 - The area around the wound feels numb
 - If you have not had a tetanus shot in the past 5 or 10 years, especially if you have a puncture wound
 - You were bit by an unknown animal or an animal that may have rabies
 - The wound will not stop bleeding after 10 minutes of adequate pressure, blood soaks through the bandage, or there is bleeding in spurts
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SPECIAL CIRCUMSTANCES

ACCIDENTAL AMPUTATIONS INVOLVE A LOSS OF A LIMB OR PART OF A LIMB.

Amputations have a high risk of blood loss so they need to be treated immediately. The first priority is to stop the bleeding by applying pressure. Try to remain calm and call 911. If you cannot call 911, it is important to get to a place where you can call for immediate help.

While you are waiting for help, it is important to apply direct, firm pressure and if possible raise the injured area above your heart. You may need to use a tourniquet or tight bandage to slow down bleeding. If possible, clean the amputated part with water and keep it secure. Wrap the amputated body part in a clean cloth or gauze and put it in a sealed plastic bag. This bag should be placed inside a container of ice water. Do not put the amputated part directly on ice or directly in water without being covered and sealed in a bag.

**Ultimately, the medications included in a Jase Case are at the sole discretion of the prescribing physician.*



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