Emergency Medicine: Treating Animal Bites Correctly



people have, at some time of their life, run afoul of some ornery critter. In the United States, there are millions of animal bites every year resulting in hundreds of thousands of ER visits. As this is **Dog Bite Prevention Week**, we'll discuss animal bites by mammals.

Although wild animals will bite when threatened or ill (or to protect their young or territory), most avoid humans if at all possible. Domestic pets, such as cats, dogs, and small rodents are the culprits in the grand majority of cases. Dog bites, the most common, are responsible for tens of millions of bite wounds every year, but they're usually more superficial than cat bites; their teeth are relatively dull compared to felines.

Despite this, their jaws are powerful and can inflict crush injuries to soft tissues. Cats' teeth are thin and sharp, and puncture wounds tend to be deeper. Both can lead to infection if ignored, but cat bites inject bacteria into deeper tissues and become contaminated more often.

Various animals carry disease which can be transmitted to humans, but the one most associated with animal bites is the Rabies virus. Rabies can be spread by dogs, cats, raccoons, skunks, bats, and opossums but no US cases have been caused, as of yet, by domestic cattle, squirrels, rabbits, rats, sheep, or horses.

{adinserter usdeception}Although the classic example is the rabid dog, cat bites are the most common cause among domesticated animals.

Wildlife, however, accounts for the grand majority of cases in the United States. Raccoons, opossums, skunks, coyotes, foxes, and bats are the most common wild vectors. It is estimated that 40,000 persons in the United States receive a rabies prevention treatment after exposure every year.

In addition, it is possible to develop tetanus and other infections from animal bites. Tetanus is a potentially fatal infection of the muscles and nervous system caused by the bacteria Clostridia Tetani.

First Aid when Bit

Most animal bites affect the hands (in adults) and the face, head, and neck (in children). Whenever a person has been bitten, the first and most important action is to put on gloves and clean the wound thoroughly with soap and water. Flushing the wound with an irrigation syringe will help remove dirt and bacteria-containing saliva.

An antiseptic will be helpful in decreasing the chance of infection. Betadine or Benzalkonium Chloride (BZK) are good choices. Be sure to control any bleeding with direct pressure.

You may read that you should close a wound from an animal bite, but in a survival setting, I would disagree. Any animal

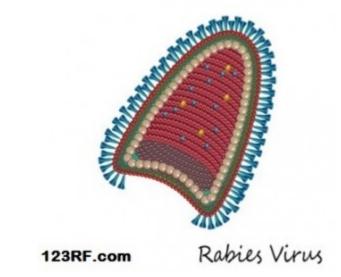
bite should be considered a "dirty" wound and should not be taped, sutured, or stapled shut. If the bite is on the hand, by the way, any rings or bracelets should be taken off. If swelling occurs, they may be very difficult to remove afterwards.

Frequent cleansing is the best treatment for a recovering bite wound. Apply antibiotic ointment to the area and be sure to watch for signs of infection. You may see redness, swelling or oozing. In many instances, the site might feel unusually warm to the touch. You can find out more about infected wounds in our video on the subjecton our YouTube channel (drbonespodcast), as well as our video on dealing with the open wound.

Oral antibiotics may be appropriate treatment (especially after a cat bite): Although Amoxicillin with Clavulanic acid 500 mg every 8 hours for a week is a good first line therapy, Clindamycin (veterinary equivalent: Fish-Cin) 300 mg orally every 6 hours and Ciprofloxacin (Fish-Flox) 500 mg every 12 hours in combination is also a good choice, with Azithromycin, Metronidazole (Fish-Zole) and Ampicillin-Sulbactam as other options.

Children who suffer animal bites may become traumatized by the experience. In some cases, they may even develop a form of Post-traumatic Stress Syndrome and benefit from counseling.

Children should be informed about the risks of animal bites and should be taught to avoid stray dogs. Be wary of leaving any small child unattended around animals. Fatalities have occurred because there was no able-



Rabies is a dangerous but, luckily, uncommon disease that can be transmitted by an animal bite. The grand majority of cases are found in underdeveloped countries.

In the United Kingdom, rabies is almost unheard of, although there has been a report or two of infection from bat bites in 2012.

A person with rabies is usually symptom-free for a time which varies in each case (average 30 days or so). The patient will begin to complain of fatigue, fever, headache, loss of appetite, and fatigue. The site of the bite wound may be itchy or numb.

A few days later, evidence of nerve damage appears in the form of irritability, disorientation, hallucination, seizures, and eventually, paralysis. The victim may go into a coma or suffer cardiac or respiratory arrest. Once a person develops the disease, it is often fatal.

Vaccinations are available to prevent the disease. Regardless of your general opinion regarding them, it might be reasonable to consider if you work with animals as an occupation. The CDC also recommends tetanus shots in those who haven't had one in the last five years.

It is important to remember that humans are animals, and, in a survival setting, you might see bites from this source as well. Approximately 10-15% of human bites become infected, due to the fact that there are over 100 million bacteria per milliliter in human saliva.

Although it would be extraordinarily rare to get rabies as a result of a human bite, transmission of hepatitis, tetanus, herpes, syphilis, and even HIV if possible.

Treat as you would any contaminated or dirty wound.

This article was written as a Guest Writer for <u>Survivopedia</u> by **Joe Alton, M.D.**, aka Dr. Bones of <u>www.doomandbloom.net</u>.

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