

Risks of Injuries from Handling Small and Large Animals

Our topics for this week are:

- **Common injuries from dogs, cats, cattle, and horses**
- **Causes of animal handler injuries**
- **Animal injuries to veterinary health professionals**

Few domestic animals are naturally aggressive toward humans. When fearful or stressed, most animals' first reaction is to attempt to flee. When fleeing is not an option, they will resort to their means of offense or defense, which may involve teeth or beaks that bite; hooves that kick, stomp, or strike; claws that puncture or scratch; heads that butt or crush; or horns that gore or a combination of these.

More than four million dog bites are estimated to occur annually in the U.S. About one-sixth of these require medical attention, and 10 to 20 deaths occur each year. Children, the elderly, and letter carriers, in that order, are at highest risk of dog bites. Five percent of all emergency room visits are caused by dog bites. Dogs that receive inadequate early socialization with humans and continued gentle handling, as well as those that are tethered for long periods, are the most likely to bite. Bites from cats are common but less life-threatening than most dog bites. The risk of infection from cat bites is greater, and impairment of hand function is a significant risk.

Animals are responsible for approximately 1% of occupational fatalities in the U.S. One of six farm injuries are animal related, due to bites, kicks, and crushing. Male and elderly handlers are demographically at highest risk. Cattle, especially bulls, are responsible for 40% of deaths, horses for 27%, dogs for 3%, and hogs for 1%.

Cattle cause deaths in humans by mauling, charging, goring, kicking, or knocking down people. Most deaths are the result of attacks by bulls or cows with newborn calves. Beef cattle are handled less than dairy cattle and are more inherently dangerous than dairy breeds. However, dairy bulls are considered the most dangerous of all domesticated animals. Dairy handlers are most often injured during the milking process or treating mastitis, sustaining leg or facial injuries.

Most horse-related human deaths are associated with riding, such as falling off or being thrown off. Other people are killed by being crushed, trampled on, or kicked (particularly in the head) by horses. Brain and craniofacial injuries from animals are most often caused by horses. More than 100,000 people are admitted to an emergency room in the U.S. from horses each year. Approximately two-thirds of horse-related injuries are from riding, and more than 12,000 injured people have head injuries. In large animal veterinary hospitals with good cattle handling

facilities, injuries from horses are 4 times that of injuries from cattle. Horses are often treated in individually in open spaces or their stalls with less protection for handlers.

Animal-related physical injuries to humans can be intentional from the animal involving butting, goring, bites, and kicks from aggression or fear. In other cases, the injury may be unintentional such as crushing from falls, stepping on feet, and scratching while struggling to get free.

Human-related physical injuries to animals can be intentional from the inappropriate release of anger and sadistic injuries. Intentional mistreatment of dogs typically occurs with dogs being trained for fighting. Unintentional injuries to animals can occur to those that are handled or restrained inappropriately. Many unintentional injuries of animals involve horses and caused by handlers without adequate training on the proper handling of horses.

Reactions of animals who are familiar with a particular handler are not the same as those of animals that have no prior experience with the handler. A perceived lack of handler confidence will elicit actions of social dominance or fear in animals. Equipment failure is an easily avoided but common cause for handler injury.

Risks to Veterinary Personnel

Based on most reported epidemiologic studies of animal-related injuries to veterinary personnel, more than half of all veterinarians will be seriously injured by animals some time in his or her career. Approximately one-fourth of the injuries require surgery. The body location of about half of animal-related injuries are the hands. Approximately one-fourth are to the arms and nearly the same to the head with much less to the chest, followed by the abdomen and groin. The species inflicting injury are from, in decreasing order of frequency: cattle, small animals, and horses. Injuries that are reported are primarily kicks and bites, followed by crushing injuries, butting, being run over, and other less common injuries. Reported scratches are much lower than the true incidence. Many scratches are considered inconsequential.

Large animal veterinarians are injured at 1.75 times the rate of injuries to companion animal veterinarians, but veterinary technicians in companion animal practice have more than six times more injuries than large animal veterinary technicians (note: these figures include other job injuries in addition to those directly from animal handling). The most common large animal-related injury is being kicked followed by crushing (both occur more often from cattle than horses). The injuries per large animal practice from highest to lowest are: dairy, cow-calf, and equine. The number of veterinarian or veterinary technician injuries from horses are less than the injuries to nonprofessional handlers and equestrians due to the latter's lesser training and the greater danger involved in riding.

In companion animal practices, bites are the most common animal related injury. Cat bites to veterinarians occur 50% more than dog bites, and they are three times more common in veterinary technicians than dog bites. Scratches from cats are more common than bites but less frequently a reason for seeking medical attention.

An assistant should always be present when a sick, large animal is being examined to provide a diversion for the examiner. Mature bulls, stallions, rams, bucks, and boars are always

unpredictable. Handlers should never lose sight of their presence and attitude. Cows, mares, and sows with newborns can also be unpredictable and dangerous. Whenever handling mature male or nursing female livestock, handlers should always have a planned emergency exit.

If you have comments or you're interested in particular animal handling subjects, contact us at CBC@BetterAnimalHandling.com

Now let's recap the key points to remember from today's episode:

- 1. Major causes of injuries from animal handling include:**
 - Lack of animal handling knowledge
 - Overconfidence or under-confidence
 - Begin rushed
 - Becoming angered
 - Error by an assistant
 - Pain experienced by the animal
 - Equipment failure
- 2. Most horse-related injuries are from riding horses.**
- 3. Cats cause injuries to handlers more often than dogs do.**

More information on animal handling can be found in my books, *Animal Handling and Physical Restraint*, *Concise Textbook of Small Animal Handling*, and *Concise Textbook of Large Animal Handling* all published by CRC Press and available on Amazon and from many other fine book supply sources.

Additional information is provided at: www.betteranimalhandling.com . This website has more than 200 past podcasts with notes on handling of dogs, cats, other small mammals, birds, reptiles, horses, cattle, small ruminants, swine, and poultry.

Don't forget, serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.