OSHA Training Toolbox Talk: Biological Hazards – Diseases That Spread from Animals to Humans

Reference: OSHA General Duty Clause / Washington State Department of Health

Humans love animals, and the feeling is often mutual. However, it is possible to contract one of a variety of diseases, known as a zoonosis, from a virus, bacterium, or parasite picked up from an animal, be it a wild one or even a beloved pet. Here is an overview of some of the zoonotic diseases which are spread by animals in North America, and how contracting these infectious pathogens can be avoided.

Rabies is a severe viral disease that affects the central nervous system. All warm-blooded mammals, including people, can get rabies. Rabies is almost always fatal if treatment is not begun soon after exposure to the virus. While human rabies is relatively rare in the United States, many humans are exposed to rabies through the animal's saliva when being bitten by a bat, skunk, fox, or raccoon. And believe it or not, one of the most common sources of rabies in the United States is from bites of infected dogs. In the United States, human rabies is controlled by vaccinating dogs and cats, and by giving a series of painful shots to a person after they have been exposed to a potentially rabid animal.

Hantavirus is a pulmonary syndrome is a severe respiratory disease caused by inhaling dust that has been contaminated with deer mice droppings, urine, or saliva. The disease begins with flu-like symptoms, but as it worsens, shortness of breath is caused by fluid filled lungs. About one-third of all hantavirus pulmonary syndrome cases are fatal. Avoid stirring up rodent nests, droppings, or other rodent-contaminated materials into the air. Follow rodent control measures of keeping rodents out of occupied areas, trapping them, and properly cleaning up after rodents to help prevent contracting hantavirus.

Ringworm, which is actually not a worm at all, but a fungus that grows on the skin. Many animals carry ringworm-causing fungus, including dogs, cats, cattle, sheep, goats, pigs, rodents, rabbits, and birds. Spores of the ringworm fungus can also survive for a long time on carpet, furniture, or other surfaces, and cause further infections. Ringworm on a person's head usually presents as a bald patch of scaly skin, and elsewhere on the body it can cause a red, ring-shaped rash that may be itchy. People are infected by direct contact with an infected animal or object; however, most infections are spread person-to-person. So, avoiding contact with an infected person is recommended, as is thoroughly washing off all exposed skin after contacting animals.

E. coli are bacteria that live in the stomach and intestines of animals and people, and can be shed in their feces. Most strains of E. coli are harmless, but a few can cause serious disease in people. People are typically infected when they eat contaminated food, but infection can also occur through direct contact with animals or objects that infected animals have contaminated, or from infected people. Infection with certain strains of E. coli can cause diarrhea, and in some cases a severe complication called hemolytic uremic syndrome, which is more likely to occur in young children and the elderly. Washing your hands after contacting animals, as well as after handling raw meat and field-grown vegetables which could be contaminated with feces, can help prevent e-coli contamination, as can thoroughly cooking your food.

While these are but a few of the infectious diseases that can be caused by animal to human transmission of viruses, bacteria, and parasites, they are by no means the only ones. In fact, the Coronavirus, which is attributed to causing the deadly disease Covid-19, is widely believed to have originated from a bat.

Are there any questions about today's toolbox talk on recognizing that some infectious diseases can be contracted from animals? Thank you for attending today's toolbox talk. Please be sure to sign the training certification form to get credit for attending today's training session.

OSHA SAFETY TRAINING CERTIFICATION FORM

Toolbox Topic Covered: Biological Hazards – Diseases That Spread from Animals to Humans

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