Care and Use of Reptiles

The Occupational Health and Safety Program is designed to inform individuals who work with animals about potential zoonoses (diseases of animals transmissible to humans), personal hygiene, and other potential hazards associated with animal exposure. This information sheet is directed toward those involved in the care and use of reptiles.

Potential Injury & Zoonotic Diseases

Reptiles should always be considered wild animals and handled with a great deal of respect. No one should be handling a reptile unless they have had training on safe handling procedures. Reptiles can use their claws to dig into flesh or clothing, or they can scramble in an attempt to be freed or they will thrash around in an attempt to escape. Moving or handling venomous snakes requires special skills and experience. Reaching or attempting to grab a freed reptile can cause injury to neck, back, and shoulder muscles.

The overall incidence of transmission of disease-producing agents from reptiles to humans is relatively low. In general, humans acquire these diseases through poor personal hygiene. The following are some of the zoonotic diseases that can be acquired by handling reptiles.

**Salmonella:** This bacterium inhabits the intestinal tract of many animals and humans. Salmonella occurs worldwide and is easily transmitted through ingestion of contaminated material, either directly or indirectly. Common symptoms of the illness are acute gastroenteritis with sudden onset of abdominal pain, diarrhea, nausea, and fever. The use of antibiotic treatment is standard treatment for this illness.

**Aeromonas Hydrophila:** This is a species of bacterium that is present in all freshwater environments and in brackish water. Infection is acquired through open wounds or by ingestion of contaminated food or water. Common symptoms are those associated with gastroenteritis (nausea, vomiting, and diarrhea) and wound infections.

**Edwardsiella tarda:** This is a gram-negative rod bacteria usually found in the intestines of cold-blooded animals and in fresh water. It is an opportunistic pathogen occasionally causing acute gastroenteritis (nausea, vomiting, and diarrhea) and can be associated with meningitis, septicemia, and wound infections. Mode of transmission is via the fecal/oral route or ingestion of contaminated food. Antibiotics are used for treatment.
Melioidosis: Also called Whitmore’s disease is an infectious disease caused by the bacterium *Burkholderia pseudomallei*. Melioidosis is clinically and pathologically similar to glanders disease, but the ecology and epidemiology of melioidosis are different from glanders. Melioidosis is predominately a disease of tropical climates, especially in Southeast Asia where it is endemic. The bacteria causing melioidosis are found in contaminated water and soil and are spread to humans and animals through direct contact with the contaminated source. Illness from melioidosis can be categorized as acute or localized infection, acute pulmonary infection, acute bloodstream infection, and chronic suppurative infection. Inapparent infections are also possible. The incubation period (time between exposure and appearance of clinical symptoms) is not clearly defined, but may range from 2 days to many years.

Allergic Reactions to Reptiles:

Human sensitivity to reptile proteins in the laboratory setting is rare. It remains possible however, to become sensitized to reptile proteins through inhalation or direct skin contact.

How to Protect Yourself:

- **Wash your hands.** The single most effective preventative measure that can be taken is thorough, regular hand washing. Wash hands and arms after handling reptiles or cleaning their enclosures. Never smoke, drink, or eat in the animal rooms or before washing your hands.

- **Wear gloves.** If you are in a situation in which you will spend a significant amount of time cleaning enclosures or if you have any cuts or abrasions on your hands or arms, you should wear sturdy, impervious gloves.

- **Seek Medical Attention Promptly.** If you are injured on the job, promptly report the accident to your supervisor even if it seems relatively minor. Minor cuts and abrasions should be immediately cleansed with antibacterial soap and then protected from exposure to animals and their housing materials. For more serious injuries or if there are any questions, employees should report to Occupational Health Services.

- **Tell your physician you work with Reptiles.** Whenever you are ill, even if you’re not certain that the illness is work-related, always mention to your physician that you work with reptiles. Many zoonotic diseases have flu-like symptoms and would not normally be suspected. Your physician needs this information to make an accurate diagnosis. Questions regarding personal human health should be answered by your physician.

Contact

Occupational Health Services
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