

Sealpox Virus in Marine Mammal Rehabilitation Facility

[Announcer] This program is presented by the Centers for Disease Control and Prevention.

[Christina Dzikowski] Hi, I'm Christina Dzikowski and today I'm talking with Benjamin Monroe, a health scientist at CDC. Our conversation is based on a paper about sealpox virus in marine mammal rehabilitation facilities, which appears in CDC's journal, *Emerging Infectious Diseases*. Welcome, Ben.

[Ben Monroe] Thanks, I'm glad to be here.

[Christina Dzikowski] So Ben, what is sealpox?

[Ben Monroe] Well, sealpox is a member of the *Poxvirus* family, which makes it a distant cousin of viruses that cause smallpox and monkeypox in humans. It's known to infect many different species of seals and sea lions, like the California sea lion or the harbor seal that you would see on the US coast. It's been identified throughout the world, including North America, Europe, and even in Antarctica.

[Christina Dzikowski] Do sea lions and seals go to facilities because they are sick with the virus or do they get it there?

[Ben Monroe] Actually, both of these scenarios seem to occur. Sealpox has been noted in wild seal populations, but most of our data comes from rescued or captive seals. Rescued animals are often injured and malnourished, in addition to having sealpox and other diseases. Sealpox is often more common in young animals and those in poor health. It is possible for seals to get sealpox from other animals in captivity.

[Christina Dzikowski] How do seals and sea lions get sealpox?

[Ben Monroe] We don't know this with any certainty. With other similar viruses that mainly affect sheep, goats, and other barnyard animals, the virus is passed through animals by direct, or skin-to-skin, contact. For example, this could be nuzzling or nursing young animals. Sealpox can probably cause infections through fresh wounds or cuts in the skin, as well.

[Christina Dzikowski] Is this a big problem in marine facilities?

[Ben Monroe] It can lengthen the amount of time that animals have to be housed before being re-released into the wild. This infection does not seem to cause many deaths, however, so most rehabilitation centers would not consider it a big concern. It is a chronic condition and particularly poses a risk to human animal handlers.

[Christina Dzikowski] So people can get sealpox?

[Ben Monore] Yes. Sealpox is a zoonosis, which is a virus that can be passed from humans-to-animals or animals-to-humans. A dozen or so cases have been reported among animal handlers throughout the years. Typically, these infections have occurred as a result of an animal bite or because a person's hand was grazed or scratched by a tooth during an exam. The infection results in the development of a painful lesion which is slow to heal. The infection can be more serious in people with weakened immune systems and those in general poor health.

[Christina Dzikowski] Are there ways to prevent it from spreading?

[Ben Monroe] Risks to marine mammal workers can be minimized by consistent use of protective equipment, such as thick, bite-resistant gloves, when handling ill or recuperating seals and sea lions. Housing sick animals separately and disinfecting all animal pens on a regular basis should also prevent infections. Most marine mammal rehabilitation facilities encourage these good practices. However, some handlers report that they are less apt to using protective gear when handling mammals in the wild. This could be one area where risks can be further reduced.

[Christina Dzikowski] Thanks, Ben. I've been talking with Benjamin Monroe about a study, *Sealpox Virus in Marine Mammal Rehabilitation Facilities, North America, 2007–2009*, which appears in the December 2011 issue of CDC's journal, *Emerging Infectious Diseases*. You can see the entire article online at www.cdc.gov/eid.

If you'd like to comment on this podcast, send an email to eideditor@cdc.gov. That's e-i-d-editor - one word - at c-d-c-dot-gov. I'm Christina Dzikowski, for *Emerging Infectious Diseases*.

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