

Questions and Answers about MRSA for Pet Owners

What is MRSA?

MRSA stands for methicillin-resistant *Staphylococcus aureus* (*Staph. aureus*). In order to understand MRSA, it is best to first understand what *Staph. aureus* is. It is a bacterium that is normally found on the skin and in the nasal passages of humans and some animals. The Centers for Disease Control (CDC) has estimated that 25-30% of humans carry *Staph. aureus*.

What illness is caused by *Staph. aureus*?

Under normal circumstances, this bacterium does not cause illness or health problems to humans or animals. However certain conditions can arise where these bacteria can cause wound infections and disease. These conditions include damage to the skin surface such as cuts, scrapes, bites or if your body does not have the ability to fight infections. If this is the case, antibiotics are necessary to treat the infection.

How do I get *Staph. aureus*?

It is important to know that having contact with the bacteria does not mean that you will become infected. Most people who come into contact with *Staph. aureus* do not become ill. A previous illness that weakens the immune system or damage to the skin is necessary for the bacteria to cause the disease.

If you are not already a carrier of *Staph. aureus*, you can be exposed to *Staph. aureus* in several ways. Different exposures include:

- Direct skin-to-skin contact with an infected individual
- Contact with a contaminated environment
- Recent hospitalization or invasive medical procedure such as surgery, catheterization, or severe illness
- Contact with pets or other animals carrying the bacteria

How does my animal get *Staph. aureus*?

Staph. aureus is not a common bacterium in animals. Your dog, cat, horse and pig can get *Staph. aureus* the same way you do: through direct contact with infected individuals (people or animals), contaminated environments, or recent invasive medical procedures.

So now I know about *Staph. aureus*, what is MRSA?

As stated above, MRSA stands for Methicillin-Resistant *Staph. aureus* (MRSA). This bacteria is a new type of *Staph. aureus* that is resistant to antibiotics, such as penicillin and amoxicillin. These antibiotics are commonly used to treat skin infections and illnesses. Over time, a certain type of common *Staph. aureus* became resistant to the common antibiotics. This type of *Staph. aureus* became known as Methicillin-Resistant *Staphylococcus aureus* or MRSA.

Is MRSA dangerous for my animal and I?

People and pets can carry MRSA on their skin or in their nose and have no visible signs of illness. This is called colonization. Under normal circumstances when you and your

pet are healthy, MRSA causes no significant illness. If you or your pet is sick, has skin damage, or has had surgery, MRSA can cause a life-threatening disease.

How common is MRSA?

The Centers for Disease Control and Prevention estimates that only 1% of humans in the U.S. carry MRSA. Both human-to-animal and animal-to-human transmissions of MRSA are known to be possible. It has not yet been determined whether animals are an important primary source of MRSA infections for humans, or if most animals are colonized after contact with human carriers. MRSA infections have been reported in dogs, horses, pigs, cats, cattle, sheep, rabbits, chickens, and parrots.

What are the symptoms of MRSA infection?

MRSA most commonly causes skin infections, such as abscesses or boils, or wound infections.

How is MRSA infection diagnosed?

A swab taken from the affected area is submitted to a laboratory for bacterial culture.

How is MRSA treated?

Treatment varies from case to case. If the person or pet is colonized and not infected, no treatment may be needed. Skin infections may be treated with topical cleaning agents and antibiotic ointments. More serious infections are treated with oral antibiotics.

What can I do to protect myself and my family?

It is best to follow the instructions given to you by your veterinarian and by your healthcare provider if any were given. Basic precautions are listed below to decrease or avoid the transmission of these bacteria.

- Wash your hands with warm water and soap for at least 15 seconds after playing or handling your animals as well as after cleaning their cages, water bowls, toys, or other equipment.
- Keep cuts and scrapes clean and covered with bandages, especially when handling your animals.
- Do not share food with your pet and avoid sharing personal items, such as towels.
- Do not allow your animal to lick your face or your wounds.
- Avoid direct contact with cuts and scrapes on your animal and wear gloves to clean and treat them
- Take extra personal hygiene precautions when handling ill animals

What should I do if my animal is MRSA positive?

You do not need to get rid of your animal. Talk to your veterinarian about the best approach to follow with your animal. The veterinarian will take into consideration your health risk, your family's health risk and the well being of the animal.

Remember that healthy people or animals rarely develop the disease under normal circumstances. If your animal is MRSA positive, it is possible that the original source

may have been you or someone else in your household. Contact your healthcare provider to discuss MRSA if you have questions or concerns regarding you or your family.

If my pet has been diagnosed with a MRSA infection, what can I do to avoid getting infected?

1. **Follow all wound care instructions from your veterinarian.**
2. **Practice good hand hygiene.** You, your family, and others in close contact should wash their hands frequently with soap and warm water or use an alcohol based hand sanitizer, especially after changing the infected animal's bandage or touching an infected wound.
3. If possible, wear disposable gloves when touching items such as the animal's bedding, bandages or any other objects that may have been in contact with the infected wound.
4. Clean washable items that become soiled with hot water and laundry detergent (use bleach if possible). Drying laundry in a hot dryer, rather than air-drying, also helps kill bacteria.
5. Use a household disinfectant that is labeled for *Staph. aureus* or bleach solution to clean any surfaces contaminated by wounds or drainage.
 - To make bleach solution mix 2 teaspoons bleach into one quart of water. Use of full strength bleach is not necessary or recommended.
 - Be sure to make a new bleach solution every day.
 - Never mix bleach with other cleaners, especially ammonia.
6. If anyone in you home has recently had surgery or is immunocompromised, he/she should avoid contact with the infected pet, the pet's wound and any contaminated items such as bandage materials.

Adapted from educational materials from:

- 1) Ohio State University, College of Veterinary Medicine, Veterinary Teaching Hospital and the Veterinary Public Health Program
- 2) University of Minnesota, College of Veterinary Medicine
- 3) Iowa State University, College of Veterinary Medicine, Center for Security and Public Health