

Salmonella Outbreaks Linked to Pet Bearded Dragons



Investigation Notice

Posted June 14, 2024

Fast Facts

- Illnesses: 15
- Hospitalizations: 4
- Deaths: 0
- [States](#): 9
- Investigation status: Open



Bearded Dragons and *Salmonella*

Bearded dragons can carry *Salmonella* germs in their droppings even if they look healthy and clean. These germs can easily spread to their bodies and anything in the area where they live and roam.

You can get sick from touching your bearded dragon or anything in its environment and then touching your mouth or food and swallowing *Salmonella* germs.

What You Should Do

Always take these steps to [stay healthy around your pet bearded dragon](#):

- **Wash your hands**

- Always wash hands thoroughly with soap and water right after touching or feeding your bearded dragon and after touching or cleaning the area where it lives and roams.
- Always wash your hands right after handling your bearded dragon and especially before holding or feeding a baby or a young child under 5.
- Make sure children younger than 5 years old avoid contact with your bearded dragon and older children [wash their hands](#) after touching or feeding a bearded dragon.

- **Play safely**

- Don't kiss or snuggle your bearded dragon, and don't eat or drink around it. This can spread *Salmonella* germs to your mouth and make you sick.
- Have a dedicated enclosure for your bearded dragon. Don't allow bearded dragons to roam in the same spaces where your baby or young children crawl and play.
- Keep your bearded dragon out of your kitchen and other areas where you eat, store, or prepare food.

- **Keep things clean**

- [Clean your bearded dragon supplies](#) outside of the house, if possible. These supplies may include its feeders, toys, and food and water containers.
- If you must clean the supplies indoors, don't clean them in the kitchen or other areas where you eat or prepare food. Use a laundry sink or bathtub, and thoroughly clean and disinfect the area right after.

If you are thinking of getting a pet bearded dragon:

- **Pick the right pet for your family**

- Bearded dragons and other reptiles are [not recommended](#) for children younger than 5, adults aged 65 and older, and people with weakened immune systems. These people are more likely to get a serious illness from germs that reptiles can carry.

What Businesses Should Do

- **Educate customers** about how to stay healthy around bearded dragons.
 - Consider giving a [pet safety handout \[PDF – 1 page\]](#) to customers who are buying a bearded dragon.
 - This [graphic](#) can be used as a social media post or a sticker and illustrates handwashing when handling pet reptiles, including bearded dragons.
- **Learn more** about how to protect your customers and employees from *Salmonella* infection and other diseases shared between animals and humans.
 - Read the [Compendium of Measures to Prevent Zoonotic Diseases Associated with Non-Traditional Pets](#).

Symptoms of *Salmonella*

- Most people infected with *Salmonella* experience diarrhea, fever, and stomach cramps.
 - Symptoms usually start 6 hours to 6 days after swallowing the bacteria.
 - Most people recover without treatment after 4 to 7 days.
- Some people—especially children younger than 5 years, adults 65 years and older, and people with weakened immune systems—may experience more severe illnesses that require medical treatment or hospitalization.

Investigation Details

Posted June 14, 2024

June 14, 2024

CDC and public health officials in several states are collecting [different types of data](#) to investigate a multistate outbreak of *Salmonella* Cotham infections.

Epidemiologic and laboratory data showed that contact with pet bearded dragons made people sick in this outbreak.

Epidemiologic Data

As of June 14, a total of 15 people infected with the outbreak strain of *Salmonella* Cotham were reported from 9 states. Illnesses started on dates ranging from January 8, 2024, to May 16, 2024.

The true number of sick people in an outbreak is likely much higher than the number reported, and the outbreak may not be limited to the states with known illnesses. This is because many people recover without medical care and are not tested for *Salmonella*. In addition, recent illnesses may not yet be reported as it usually takes 3 to 4 weeks to determine if a sick person is part of an outbreak.

Public health officials collect many different types of information from sick people, including their age, race, ethnicity, other demographics, and the animals they came into contact within the week before they got sick. This information provides clues to help investigators identify the source of the outbreak.

The table below has information about sick people in this outbreak (“n” is the number of people with information available for each demographic).

Table of demographic information (n is the number of people with information available)

Demographics	Information
Age (n=15)	Range from <1 to 67 years Median age of 1 year 60% under 5 years
Sex (n=15)	73% female 27% male
Race (n=10)	90% White 10% African American or Black
Ethnicity (n=13)	69% non-Hispanic 31% Hispanic

State and local public health officials are interviewing people about the animals they came into contact with during the week before they got sick. Of the 12 people interviewed, 7 (58%) reported contact with a bearded dragon

before getting sick. Most people had contact at home while caring for bearded dragons such as touching the animals or their enclosures, feeding them, and putting them on their laps, heads, or shoulders. At least one child did not touch the bearded dragons and might have been exposed through indirect contact from a reptile in the household. For example, after a reptile was allowed to roam freely in the home.

Laboratory and Traceback Data

Public health investigators used the [PulseNet](#) system to identify illnesses that may be part of this outbreak. CDC PulseNet manages a national database of DNA fingerprints of bacteria that cause gastrointestinal illnesses. DNA fingerprinting is performed on bacteria using a method called [whole genome sequencing \(WGS\)](#).

WGS showed that bacteria from sick people's samples are closely related genetically. This means that people in this outbreak likely got sick from the same type of animal. WGS also showed that this *Salmonella* Cotham strain is genetically closely related to a *Salmonella* Cotham strain which caused an outbreak from 2012–2014 and was linked to bearded dragon exposure. More information on this previous outbreak can be found [here](#).

People in this outbreak reported purchasing bearded dragons at multiple retail locations.

[WGS analysis](#) of bacteria from 13 people's samples did not predict resistance to any antibiotics. Two people's samples predicted resistance to ciprofloxacin, gentamicin, and streptomycin. More information is available at the [National Antimicrobial Resistance Monitoring System \(NARMS\)](#) site. Most people with *Salmonella* illness recover without antibiotics. However, if antibiotics are needed, some illnesses in this outbreak may be difficult to treat with some commonly recommended antibiotics and may require a different antibiotic choice.

Public Health Actions

CDC advises that you always take steps to [stay healthy around bearded dragons](#):

- Wash your hands after handling bearded dragons, their food, or items in their environment.
- Don't kiss or snuggle bearded dragons.
- Keep bearded dragons out of the kitchen or anywhere that food is prepared, stored, served, or eaten and away from areas where young children play.
- Keep its supplies and habitat clean.
- Limit young children's contact with bearded dragons.