



# CAL ZOO'S REFERENCE SHEET



## REPTILE ASSOCIATED SALMONELLA Q & A

### WHAT IS SALMONELLA?

Salmonella, named after its discoverer, Daniel Edward Salmon (1850-1914), is a bacterium. Bacteria are microscopic one-celled organisms, the simplest form of life. Salmonella is considered a *zoonosis*, that is, a disease that can be transmitted from animal to man.

### WHERE DOES IT COME FROM?

There are many sources of salmonella. The most common are meat, chicken and eggs. Other sources include: cattle, pigs, dogs, cats, flies, ducks & their eggs, rats, mice, hamsters, rabbits, cockroaches and reptiles. As you can see, any animal can carry and transmit salmonella.

### HOW DO I GET IT?

Undercooked chicken, eggs and meat are typical sources. Unclean cages and animals that walk through waste products in their cage are common ways to transmit salmonella for reptile keepers. Transmission starts with the fecal matter of the infected animal. It can be picked up as easy as touching the animal or its soiled enclosure. The bacteria cannot travel through the skin. An object with the bacteria must be placed in the mouth in order to introduce the bacteria into the body. Your chances of contracting salmonella are equal from touching live or raw duck, chicken, or cattle, eggs or reptiles and placing your fingers in your mouth.

### WHO IS AT HIGH RISK?

Those who are ill, on prescription drugs, those who are immune compromised, the elderly, pregnant women and children under 5 years. These people should not come in contact with reptiles. If you come in contact with animals, immediately wash your hands. This is especially important if you come in contact with anyone falling into any of the high risk categories.

### WHAT HAPPENS IF I INGEST SALMONELLA?

In many cases the bacteria will simply pass through your body unnoticed. If you become infected, a day or two of diarrhea may be the extent of your infection. Most infected people fall into this category thinking they simply had the stomach flu. The Centers for Disease Control and Prevention (CDC) recommends you visit a doctor if your diarrhea lasts for more than two days. Other symptoms include headaches, fever & chills, nausea, vomiting and abdominal cramps. If these symptoms arise, see a doctor immediately.

### HOW LONG AFTER I GET THE BACTERIA WILL I SEE SYMPTOMS?

If your body does not reject the bacteria, and you become infected, the incubation period lasts from 7 - 30 hours. Most typically incubation occurs between 10 - 24 hours.

### HOW DO I KNOW IF MY REPTILE HAS SALMONELLA?

There is no way to tell if your reptile has salmonella just by looking at it. Fecal samples need to be examined by a veterinarian to make this determination.

### SHOULD I TAKE MY REPTILE TO THE VETERINARIAN FOR A SALMONELLA CHECK?

No. It is simply not necessary. It is not recommended reptiles be treated for salmonella. The salmonella may become immune to the treatment and will be harder to combat if it infects a human. Reptiles live naturally with salmonella similar to the way dogs live with fleas. It's best to assume your reptile has salmonella and handle it accordingly to avoid contracting salmonella. An infected reptile may not release salmonella in the feces all of the time. You could make ten or more vet visits and get ten negative results. This is not fully understood, however stress seems to play a large role in the way reptiles release salmonella. Of the 2,000,000 reported cases of salmonella infection in the United States each year, the vast majority come from meat, chicken and eggs. Reptiles comprise a very small percentage of these reported cases.

### DO ALL REPTILES HAVE SALMONELLA?

According to the Los Angeles Department of Health 9 out of 10 reptiles may carry salmonella. As mentioned earlier they may not always be releasing it. It's well known baby Green Iguanas require their mother's droppings as a part of their diet. What is not yet determined is whether they require the salmonella bacteria or if it is just a parasite (living within the host animal with no harmful side-effects). Many times reptiles, Iguanas especially, are needlessly being destroyed after being the determined source of the salmonella infection within a family.

### HOW LONG CAN SALMONELLA LIVE?

Salmonella may remain viable from weeks to years. Any surface that has been contacted by the bacteria may still have viable salmonella present for years until properly cleaned.

### HOW DO I KEEP FROM GETTING SALMONELLA OR SPREADING IT TO MY FAMILY?

The number one precaution you can take is to spray your hands immediately, after handling reptiles or their enclosure, with Zoo Med's WIPE OUT 3 Antimicrobial Hand Cleaner, or wash your hands with plain soap and warm water for at least 30 seconds (or use anti-bacterial soap). WIPE OUT 3 is a simple spray-on and wipe-in cleaner which kills bacteria including salmonella. The bacteria can be present on the animal's skin or surfaces it came in contact with and be transmitted to the hands of those who held it. The bacteria can then be transmitted to anyone or anything that is touched. A simple spray of Zoo Med's WIPE OUT 1 Terrarium Cleaner/Disinfectant spray, or a comparable spray such as Lysol®, can control germs on household surfaces. Do not allow reptiles to roam freely when anyone of high risk is living in the house. Supervise children while handling reptiles and be sure they keep their hands away from their mouths while handling reptiles. Be sure children know, they too, need to wash their hands immediately after handling reptiles (or any animal for that matter). California Zoological Supply has authored a reference sheet on how to properly clean reptile enclosures in order to best avoid contracting salmonella. Copies may be obtained through most pet stores that carry reptiles. If the pet store in your area does not supply CAL ZOO'S REFERENCE SHEET ON REPTILE ASSOCIATED SALMONELLA, ask that they do.

### DID YOU KNOW...

- 38% of those infected with salmonella are children under 5 years old? 13% to children under 1 year?
- you have a greater chance of contracting salmonella by eating uncooked cookie dough containing raw eggs than by holding a reptile and washing your hands?
- there are 2,300 types of salmonella?
- salmonella can also be found in marijuana?
- salmonella is fatal in only 1% of cases?
- an estimated 60% of chicken in processing plants carry salmonella?
- there are about 30 trillion bacteria per ounce? That's 30,000,000,000,000!!

- bacteria reproduce asexually? That is, they simply split in two.
- 1 bacteria can become 500,000 bacteria in 6 hours?
- there are beneficial bacteria? Some are used to make cheese, yogurt, buttermilk, vinegar and sauerkraut.

This sheet may be copied in its entirety only.