

REPTILES AND SMALL CHILDREN IN THE HOME

EXPERIENCES OF PREVENTING A SALMONELLA INFECTION

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**CAPTIVE BRED HOMO SAPIENS,
JULY 1999, NAME: KAEY, 73 CM,
JUST OVER 8.5 KG**

In our house a small child crawls around. As well as this, I keep snakes as a hobby. Therefore, when I became pregnant, I had myself educated extensively on the possible risks of *Salmonella* infection. I also read all the articles I could find on the subject. Last but not least, I participated in research done at the Veterinary University. This research meant that I had to send a faecal sample from each of my snakes. This was tested to see if *Salmonella* was present, and if so, what type and to which kinds of antibiotics it was sensitive. I also had my own and my partner's faecal material tested.

The result of this research was that about half of my snakes carried one or more type of *Salmonella*. My partner and myself gave a negative result. This meant that in more than twelve years of keeping snakes I have never been infected with *Salmonella*. I decided that I could continue caring for my snakes, if I kept to certain guidelines and thereby minimised the risk of infection.

I will give a brief overview about *Salmonella*, how you can get infected, who runs a greater risk of actually getting ill and what the symptoms are.

SALMONELLA

Salmonella is a bacterium that is found in the intestines of snakes (and other reptiles). *Salmonella* bacteria are

excreted with the faeces. A snake can carry *Salmonella* without any symptoms. You can therefore not see by its outward appearance whether or not a snake is a carrier. *Salmonella* even appears to be a normal part of the intestinal flora of a snake. If the snake weakens *Salmonella* can multiply and cause disease in a snake.

A comparison can be made with people: a person can be infected by direct or indirect contact with reptiles and be a carrier without ever noticing it. Somebody with a low, or a diminished resistance, like a baby or child of less than five years of age whose immune system has not fully developed, can become seriously ill from an infection. The same holds for pregnant women, people with deficiencies in their immune system and the elderly.

Contamination can happen in several ways. The most common way is orally. For instance, a child holds a snake and subsequently sucks its thumb. Via an open wound bacteria can enter directly into the blood stream. It is also possible that during cleaning fine droplets containing the bacteria enter the eyes or are rubbed in by dirty hands (I have to force myself not to rub my eyes whilst cleaning).

Symptoms of an infection can be quite diverse according to literature: diarrhoea, vomiting, fever, stomach cramps, indeterminate infections, blood poisoning etc. It is therefore necessary to avoid an infection.

HOW DO I AVOID CONTAMINATION?

After I received the test results from the researchers, one snake turned out to have a type of *Salmonella* that was resistant to all tested antibiotics. This meant that if this snake infects Kaey, there are no antibiotics that



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can help him to get well. I found this too great a risk and got rid of the snake.

After touching my snakes or materials from my reptile room (terraria, water bowls, cleaning brush etc.) I do not touch Kaey or other areas of the house. When I take care of my snakes, Kaey has already been fed and is asleep with a clean diaper, so I don't have to go to him. If he unexpectedly does wake up, I first disinfect myself, before I go to him. When Kaey doesn't want to sleep I wait till my partner comes home and takes over caring for him.

Kaey very seldom comes into the snake room and then only when he is carried, so he doesn't touch a thing (for now the motto is: only look with your eyes).

Because of the risk of indirect contamination, the dog is seldom allowed into the reptile room, certainly not when I'm not there. Our dog sniffs and eats everything he even remotely thinks might be edible (like rabbit droppings, used shavings from the terrarium etc.).

I make sure my nails are cut short, so they are easy to clean. Before I clean my terrariums, I take off my watch, so no dirt gets in or under the strap. I also roll up my sleeves or put my shirt into the wash bin immediately after cleaning. Kaey sucks on everything and there is a chance that small pieces of faecal material or other dirt may get onto the shirt.

I regularly clean the terraria. I also make sure the reptile room is clean and orderly. I use a separate sink and separate part of the kitchen surface for the reptiles. Before I wash water bowls and hides, I first remove all the baby's things, like bottles and plates. I move other objects in the kitchen far enough away to make sure no droplets get on them.

In the reptile room I have separate cleaning utensils, like a dishwashing brush and towels. While cleaning I try to splash as little as possible and after cleaning I disinfect the kitchen top with a disinfectant spray. The dishwashing brush is also disinfected because it collects most of the (invisible) dirt.

When I finish taking care of the animals, I wash my hands and arms with an antibacterial soap or disinfect them with "Handclean". This is a clear gel that kills 99% of the bacteria without water and soap. Both can be found on sale at the supermarket or pharmacy. Every so often I have visitors that want to see the snakes and sometimes even handle them. They can, but they also have to wash their hands with the antibacterial soap afterwards. Last year Kaey accompanied us to the Terrarium Days in Tilburg and the Snake Day. Not because he really wanted to go, but because he was still being breast-fed (and I really wanted to go). On these days I made sure that Kaey wasn't infected by direct contact. I didn't touch a lot of snakes and disinfected my hands afterwards. I brought "Handclean" for this purpose. The friend who accompanied me, and took care of Kaey when I walked around and admired the reptiles, did the same.

CONCLUSION

Aside from all the afore mentioned precautions to avoid contamination it would be even better not to use the sink in the kitchen (or bathroom), but to have a separate sink in the reptile room. Both Melissa Kaplan in an article on general hygiene and Marja Kik as a veterinarian give this advice.

With this article I wanted to illustrate that snakes and small children can go together. You can combine having an infant in the home with the taking care of snakes. To minimise the chances of contamination a consistent and hygienic way of working is necessary. The tips mentioned above may seem numerous and cumbersome, but if you train yourself to work hygienically, you will do it automatically and it will cost little time.

Chances of contamination may be small, but the consequences are great!

LITERATURE

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*Translation: Ron Winkler,
Corrections: Lawrence Smith.*

