

Salmonella Enteritidis Facts for Small Flock Owners

What is Salmonella Enteritidis?

Salmonella Enteritidis or "SE" is a bacteria that can be present in live poultry and cause illness in people.

How does Salmonella spread to and affect poultry?

Poultry, including chickens and turkeys, can become infected with many strains of Salmonella, including SE. Salmonella bacteria are normal intestinal flora of poultry and their presence does not usually cause any signs of illness in poultry. In general, Salmonella bacteria are transmitted from one bird to another during contact with droppings (fecal - oral route); manure piles, dead carcasses, barn dust and rodents (rats and mice) can also be important sources of Salmonella for chickens.

How does Salmonella spread from chicks and poults to people?

People handling the chicks or poults can be infected with Salmonella when the bird or its droppings are exposed to a person's mouth, eyes or nose (e.g. kissing birds, touching one's face after handling birds or their environment). The risk can be reduced by avoiding close contact and thorough hand washing after handling the birds and anything the birds were in contact with such as water, feed, bedding, or housing.

How does Salmonella get into eggs?

Some types of Salmonella, such as SE, can infect hens reproductive tracts (ovary and oviduct). From the ovary, SE can contaminate the inside of an egg before the shell is formed. These eggs will not look or taste any different than other eggs. However, humans or other animals including pets can become ill after consuming contaminated eggs that are not cooked thoroughly. SE can also enter the egg from the outside of the shell if it is cracked. If an SE infected egg is fertilized and hatched, the baby chick can be infected, and will infect others around it.

What can I do if I purchased chicks or poults that might have been infected with SE?

Small flock owners that acquired chicks or poults from distributors that sourced from Alberta in the period March 1, 2015 through May 15, 2015 have several options.

- Though there are no requirements for depopulation or flock owner action, the most effective strategy to get rid of SE in the flock is to depopulate, clean and disinfect the premises very thoroughly and start over with new chicks (see below). It is important to remember that infected birds will generally not display any symptoms.
- The Ministry of Agriculture's Animal Health Center is offering small flock owners no-charge environmental testing related to this incident to help determine if their flock is infected. Call the Animal Health Centre at 604-556-3003 for information. Please keep in mind, a negative test is not always conclusive as SE can be difficult to detect.
- For further information on response options, contact your veterinarian or the Animal Health Centre (604-556-3003).

What should I do with the eggs from my flock?

You cannot tell which eggs are contaminated with SE. All eggs should be stored under refrigeration and prepared so that both the white and yolk are cooked thoroughly (that is, both the yolk and white are cooked “hard”, not soft or runny). Cracked and/or dirty eggs should be discarded. Always wash your hands after handling or preparing eggs.

What should I do with meat from my flock?

All poultry should be properly butchered using hygienic techniques to reduce the level of contamination. Standard safe food preparation techniques should be used to further reduce the risk of foodborne illness. These techniques include thoroughly cooking poultry to an internal temperature of 74 - 85°C, (depending on the product), hand washing after contact with raw poultry, using only clean utensils and preparation surfaces which are cleaned after use to prevent cross-contamination of other foods.

What should I do if I am selling my poultry or poultry products?

Please ensure your customers are aware of the risks of SE and techniques to reduce the risks.

In the future, how can I prevent and control SE in my flock?

The focus should be first to prevent the entry of SE into the flock, second, to prevent carry-over into the next flock, and third, to reduce the risk of contaminated eggs. The following steps will significantly reduce the risk of Salmonella contamination of the flock and eggs.

- Purchase chicks or pullets from commercial sources like feed stores or hatcheries. The current situation was identified because the source flock is routinely tested, and following the positive test, corrective action was taken so new chicks should be SE free.
- Start and maintain an effective rodent control program.
- Restrict visitors to your farm, especially those who have been on other farms. Have clean boots for visitors so that they don't track germs onto your farm.
- Remove manure routinely from the bird area.
- Carry out a thorough cleaning and disinfection prior to introduction of a new flock.
- Consult your veterinarian about these and other options to keep your birds healthy.
- Have an “all-in all-out” policy so that there is no contact between birds from the group going out of lay and the new flock.

What are the symptoms of salmonellosis infection in people?

A person infected with the Salmonella may experience symptoms such as: stomach cramps, diarrhea, fever, nausea, vomiting and dehydration. Symptoms start an average of 12 to 36 hours after exposure. Symptoms last 4 to 7 days and most people recover without treatment. The elderly, infants, and those with impaired immune systems may have a more severe illness.

Consult with your health care provider if you have questions about your health or feel ill, and always cook eggs and chicken thoroughly and wash your hands after handling eggs or chicken.