

## COMMON INFECTIOUS DISEASES- SERIES 4

This article is the fourth in a series of educational material on specific Infectious Diseases.

**Salmonellosis:** Salmonella is a group of bacteria of more than 2,000 types that cause an infection called Salmonellosis (more commonly known as food poisoning). The infection is caused by consuming contaminated food or beverage products, contaminated water, or touching infected animals and birds.



**Symptoms:** include diarrhea, fever, and abdominal cramps (similar to the stomach flu). In more severe cases, a person may experience nausea & vomiting, body aches, headache, rash, lethargy, and blood in the stool or urine. Severe cases left untreated can result in death. Symptoms may start 6 hours to 6 days after being infected, lasting 4-7 days.

**Sources of infection:** The Salmonella bacteria can be spread by food handling where handwashing was not done properly, as well as countertops and other food preparation surfaces (ie cutting boards) having not been properly cleaned. Consumption of raw or undercooked meats and eggs, unpasteurized dairy products, unwashed fresh fruits and vegetables, nut butters and spreads can be a source of infection. Salmonella can also be found in pet foods and treats.

Animals, reptiles in particular, and birds can carry the Salmonella bacteria. Contaminated animal pens, cages, tanks, and litter boxes can lead to Salmonella exposure. The US FDA banned the sale of small turtles in the US in 1975 because of the risk for Salmonella.

**Diagnosis:** Lab testing is done to detect the presence of the Salmonella bacteria in stool, body tissue and fluids.

**Treatment:** Most people recover completely from Salmonellosis without any specific treatment. It is important to drink extra fluids as long as the diarrhea is present. It may take several months for bowel habits to return to normal. In severe cases or when an individual is at high risk, antibiotic treatment is recommended. Be sure to seek medical treatment if symptoms last more than a few days, high fever or bloody stools occur, or you experiencing dehydration (decreased urination, dark urine, thirst).

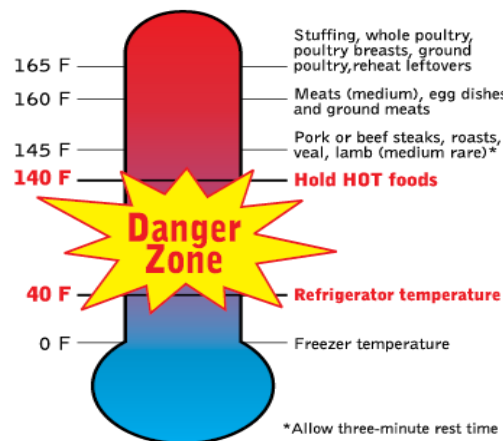
**Complications:** Reactive Arthritis, also known as Reiter's Syndrome", is a rare complication of Salmonellosis. An individual can develop joint pain post-infection which can last a few months to years. For some, irritation of the eyes and pain with urination occurs.

**Risk factors:** Individuals at highest risk for Salmonellosis are adults ages 65 and older, those with a weak immune system (ie, HIV/AIDS, sickle cell), children under the age of 5 years, those with stomach and bowel disorders, and those taking anti-rejection drugs following organ transplant. People traveling to countries with poor sanitation are also at high risk for contracting Salmonella infection.

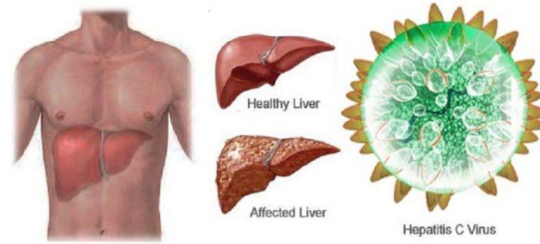
## Prevention:

According to federal health agencies, there are several steps you can take to prevent a Salmonella infection.

1. Use a separate cutting board for raw meat and for fresh fruits and vegetables.
2. Wash and sanitize surfaces used to store and serve potentially contaminated products.
3. Wash hands with warm water and soap prior to food preparation and following the cleaning of cooking utensils.
4. Avoid eating raw or undercooked meats and poultry, raw or uncooked eggs and egg products, sprouts of any kind. The USDA oversees inspection, sampling, and testing programs for meat, poultry, and egg products. The FDA is responsible for dairy, produce, seafood, bottled water, packaged foods, and whole eggs.
5. Wash all fruits and vegetables before peeling and/or consuming. Cool running water and drying with a paper towel is sufficient. DO NOT use bleach or other chemicals for cleaning these food items!
6. Wash hands after petting animals and cleaning their food dishes. Avoid kissing pets.



**Viral Hepatitis:** this form of hepatitis is an inflammation of the liver caused by any of 5 different viruses. Hepatitis A, B, C are the most common types. Hepatitis D is only found in people with Hepatitis B. Hepatitis E is primarily found in Africa, Asia, and South America by ingesting contaminated water in areas lacking modern sanitation. Hepatitis can be acute or chronic, with long-term effects.



**Symptoms:** fatigue, nausea, loss of appetite, fever, abdominal pain, jaundice, joint pain, dark urine, light-colored stools.

**Source of infection:** only microscopic amounts are needed to infect a person.

- Hepatitis A: food borne-contaminated water and unwashed food, easiest to transmit especially in children. Ingestion of fecal matter that has been in contact with food, drinks, and objects from an infected person.
- Hepatitis B: exposure to contaminated blood or semen, needles, syringes, body fluids, and mother to baby during birth. Poor infection control in healthcare facilities.
- Hepatitis C: transmitted only through infected blood or mother to baby during birth. Prior to 1992 and before screening of blood products was done, Hepatitis C could be transmitted during a blood transfusion or organ transplant.

**Diagnosis:** a history and physical is taken by the healthcare provider. Abdominal palpation is done to check for liver enlargement and/or tenderness. Blood tests are done to check for elevated liver enzymes and the virus type. An ultrasound of the liver can show changes and fluid in the abdomen. A liver biopsy may be done to help determine the degree of liver damage present.

**Treatment:** While there is no cure for hepatitis, treatment is focused on symptom relief, preventing liver damage, and possible reversal of existing liver damage. Treatment varies depending on the type of hepatitis involved.

- Hepatitis A: bedrest with proper fluid intake and nutrition. Most people recover with no liver damage.
- Hepatitis B: antiviral medication for chronic stage and routine medical check-ups. 15-25% of chronically infected people develop liver disease.
- Hepatitis C: antivirals for both the acute and chronic stages. More than 50% of people don't know they are infected and will develop chronic infection.

**Complications:** these include chronic liver disease, liver failure, and liver cancer. In some serious cases, a liver transplant may be needed.

**Prevention:** vaccines are available for Hepatitis A and B. Hepatitis A vaccine: a 2-dose protocol for children 12-23 months of age and adults. Hepatitis B vaccine: 3-dose protocol for newborns over the first 6 months. It is recommended for all healthcare and medical personnel. This vaccine also prevents Hepatitis D. Individuals with chronic Hepatitis B and C should avoid alcohol consumption, and taking certain medications and supplements that could worsen existing liver damage. Stress and fatigue can also worsen liver disease.



To reduce exposure to the hepatitis viruses:

1. Minimize contact with body fluids, contaminated food and water.
2. Practice effective hygiene.
3. Do not share needles, razors, glucose monitors, or use another person's toothbrush.
4. Do not touch spilled blood.
5. Use barrier methods during sexual activity.

For more information on Viral Hepatitis and other forms of Hepatitis, go to the website for the Centers for Disease Control([cdc.gov](http://cdc.gov)).

Resources: [cdc.gov](http://cdc.gov), [hopkinsmedicine.org](http://hopkinsmedicine.org),  
[Healthline.com](http://Healthline.com)