What is salmonellosis?

Salmonellosis is an infection with bacteria called *Salmonella*. Most persons infected with *Salmonella* develop diarrhea, fever, and abdominal cramps 1 to 5 days hours after infection. The illness usually lasts 4 to 7 days, and most persons recover without treatment.

The elderly, infants, and those with impaired immune systems are more likely to have a severe illness.

Why is the Oregon Public Health Division talking about *Salmonella*?

Oregon public health officials found *Salmonella* Heidelberg in samples of Foster Farms chicken sold in Oregon that matched the strains found in Oregon patients.

Why is Oregon Public Health notifying the public now?

Oregon public health officials have concluded based on data from a recent investigation that a 2012 outbreak of salmonellosis is linked to Foster Farms chicken.

Is there a health risk to eating chicken that has *Salmonella* Heidelberg?

Yes. Salmonellosis is an unpleasant and potentially serious illness. This strain appears to cause severe illness a bit more often than most other types of *Salmonella*. Of the 43 cases in this 2012 outbreak, seven had the strain in their bloodstream, and 16 cases were hospitalized.

Is this strain resistant to antibiotics?

The Oregon strain is not resistant to antibiotics typically used to treat salmonellosis.

How do I properly prepare and cook chicken?

Clean, separate, cook and chill.

- **Clean.** People should wash their hands thoroughly before and after handling meat; avoid contaminating foods eaten raw with poultry products or their drippings. Clean and sanitize all food preparation surfaces, cooking utensils and cookware after they come in contact with raw poultry.
- **Separate.** When handling raw meat, poultry, seafood and eggs, keep these foods and their juices away from ready-to-eat foods. Use one cutting board for fresh produce and a separate one for raw meat, poultry and seafood.
- **Cook.** Always cook poultry to internal temperature of 165 degrees as measured with a food thermometer. Check the internal temperature in the innermost part of the thigh and wing and the thickest part of the breast with a food thermometer. If you don’t have a thermometer, consider purchasing one.
• Chill. Uncooked poultry should be refrigerated no longer than two days and kept in the freezer no more than four months. Cooked poultry can be refrigerated for three to four days and frozen for two to three months.

Should I stop eating chicken?

Not unless you want to. Be aware that Salmonella and other bacteria are common on poultry products, and all raw poultry needs to be handled carefully to reduce the risk of illness; but if handled carefully and cooked well, chicken is safe to eat. Cooking chicken to an internal temperate of 165 degrees Fahrenheit will keep food safe from harmful bacteria.

I don’t buy my chicken at a grocery store. Do I need to be worried?

It doesn’t matter where your chicken comes from: health officials recommend careful handling and thorough cooking of all types of poultry. Remember, “clean, separate, cook and chill.”

What should I do if I think I’m sick?

People who have salmonellosis should not prepare food or pour water for others until their diarrhea has resolved. Most people recover without needing to see a doctor, but for some, the diarrhea may be so severe that treatment or hospitalization is required. Contact your health care provider if you are sick enough to need medical attention. Symptoms of severe salmonellosis include severe diarrhea or abdominal cramps, bloody diarrhea, and fever.

Are there long-term consequences of Salmonella infection?

Persons with diarrhea usually recover completely, although it may be several months before their bowel habits are entirely normal. A small number of persons with Salmonella develop pain in their joints, irritation of the eyes, and painful urination. This is called reactive arthritis. It can last for months or years, and can lead to chronic arthritis, which is difficult to treat. Antibiotic treatment does not make a difference in whether or not the person develops arthritis.

Do you know where the chicken in this outbreak came from?

Most of those who got sick reported eating chicken, and most of those who could recall the brand of chicken eaten reported that it was Foster Farms-brand chicken. In addition, the strain of Salmonella Heidelberg found in the stool samples of those who fell ill matched the strains found in retail poultry purchased and tested by the Oregon State Public Health Lab, leading epidemiologists to conclude that Oregonians who were infected by this particular strain contracted it from handling or eating Foster Farms chicken.

My neighbor has 3 chickens in his back yard. Does that pose a risk to my kids?

It is prudent to assume that chickens and other animals may be carrying Salmonella. You can reduce your risk by frequent and thorough hand washing when you are out in the yard, your garden, or your farm — anywhere wild and domestic animals may be.
How do public health officials find out which food is making people sick?

One way public health officials find outbreaks is through disease reporting. By gathering reports of certain types of illnesses all the time, they know how many illnesses to expect in a given time period in a given area.

If a larger number of people than expected appear to have the same illness in a given time period and area, it’s called a cluster. When an investigation shows that ill persons in a cluster have something in common to explain why they got the same illness, the group of illnesses is called an outbreak.

How often do Oregon Public Health Division employees go out and buy chicken from stores?

Oregon participates in something called the National Antimicrobial Resistance Monitoring System (NARMS), a multi-state project that monitors the presence of *Salmonella* and *Campylobacter* (another bacterium that causes diarrhea) in retail chicken. Staff from the Oregon State Public Health Laboratory purchase chicken from retail grocery outlets in the region once a month, typically buying 10 individual packages of chicken breasts, and test them for these bacteria.

How often is poultry contaminated with bacteria that cause diarrhea?

On average during 2007–2011, 6% of chicken specimens tested had *Salmonella*, and 37% had *Campylobacter* (another bacterium that causes diarrhea).

How many people got sick in the 2012 outbreak?

During 2012, 43 individuals with this strain of *Salmonella* Heidelberg were reported among Oregon residents. CDC estimates, however, that for each case reported, there are about 25 unreported cases — those who do not seek medical attention or whose doctors do not order a test for *Salmonella*.

Cases of *Salmonella* Heidelberg infection with Foster Farms PFGE pattern, Oregon, 2012

<table>
<thead>
<tr>
<th>Oregon County</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clackamas</td>
<td>5</td>
</tr>
<tr>
<td>Columbia</td>
<td>1</td>
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<tr>
<td>Deschutes</td>
<td>2</td>
</tr>
<tr>
<td>Douglas</td>
<td>2</td>
</tr>
<tr>
<td>Harney</td>
<td>1</td>
</tr>
<tr>
<td>Josephine</td>
<td>1</td>
</tr>
<tr>
<td>Lake</td>
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</tr>
<tr>
<td>Lane</td>
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<td>Linn</td>
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</tr>
<tr>
<td>Marion</td>
<td>5</td>
</tr>
<tr>
<td>Multnomah</td>
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<tr>
<td>Polk</td>
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<td>Wasco</td>
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<tr>
<td>Washington</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
</tr>
</tbody>
</table>
Is it common to get sick from a foodborne illness?

CDC estimates that each year Americans suffer about 48 million instances of foodborne illness.

Is this a recall?

No. Oregon Public Health does not issue recalls. Generally speaking, recalls are done by private companies.

Should I bring my product back to a store?

No. If carefully handled and thoroughly cooked, the product is safe to eat.

Did scientists test any other brand of chicken, and did any of it have salmonella?

Yes, public health scientists tested other brands of chicken, and other strains of Salmonella were found. However, we found the particular strain of *Salmonella* Heidelberg associated with this outbreak only on chicken processed by Foster Farms.
Can you tell me the names of the people who got sick in 2012?

No. Oregon law precludes us from releasing names of cases reported to us. See ORS 433.008.

Were there any fatalities in the 2012 outbreak?

No. There have been no fatalities in the 2012 outbreak.

Do we know if they got sick in 2012 from undercooked chicken or from coming in contact with contaminated surfaces/utensils?

No, we don’t know. However, we know that cross-contamination can play a role in getting salmonellosis — and cross-contamination may indeed more be more important than undercooking.

What is cross-contamination?

Cross-contamination is when bacteria are spread from one surface to another, like a cutting board to a sponge. When handling raw meat, poultry, seafood and eggs, keep these foods and their juices away from ready-to-eat foods. Always start by cleaning everything: wash hands with warm water and soap; wash cutting boards, dishes, and utensils with hot soapy water or a dishwasher. Sanitize surfaces such as sinks and countertops with disinfectant solutions such as chlorine bleach. Use separate cutting boards if possible for raw meats and other fresh, uncooked foods, like fruit. Bacteria can live for days on a cutting board surface, if it is not properly washed. Sponges are a common source for cross-contamination; wet sponges should be routinely “cooked” in a microwave until they are steaming hot or rinsed in a disinfectant.