

**Multistate Outbreak of Multidrug-Resistant *Salmonella* Infections Linked to Raw Chicken Products**

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Outbreak Status: Ongoing

The New Jersey Department of Health is working with the CDC (Centers for Disease Control and Prevention) and public health and regulatory officials in several states on a ‘Multistate Outbreak of Multidrug-Resistant *Salmonella* Infections Linked to Raw Chicken Products’.

- *Salmonella* Infantis is one of many different serotypes of *Salmonella* bacteria, which all cause similar illnesses.
- Most people infected with *Salmonella* develop diarrhea, fever and abdominal cramps between 12 - 72 hours after infection and illness typically lasts 4 to 7 days.
- Individuals usually recover without treatment however in some people, the diarrhea may be severe enough to require hospitalization.
- We encourage people to contact their health care provider if they have diarrhea that lasts for more than 3 days or if diarrhea is accompanied by high fever, blood in the stool, or so much vomiting that they cannot keep liquids down and they pass very little urine.
- *Salmonella* infection may spread from the intestines to the bloodstream and then to other places in the body and in rare cases, may cause death if not treated with antibiotics promptly.
- Children younger than 5 years, adults older than 65 years, and people with weakened immune systems are more likely to have severe illness.

Outbreak Summary:

	Case Count	States/Counties	Illness Onset Range
National	92	29	01/19/18 - 09/09/18
NJ	9	6	02/22/18 - 08/10/18

Key Points:

- As of October 15, 2018; 92 people have been infected from 29 states, illnesses started on dates from January 19, 2018, to September 9, 2018 and ill people range in age from less than one year to 105 with a median of 36 and sixty-nine percent are female. Out of 62 people with information available, 21 (34%) have been hospitalized. No deaths have been reported.
- Forty-eight (89%) of 54 people interviewed reported preparing or eating chicken products that were purchased raw, including ground chicken, chicken pieces, and whole chicken.
- NJ has 9 cases associated with this outbreak from six counties; Bergen(1), Camden(1), Middlesex(2), Monmouth(1), Passaic(1) and Union(3). Illness onsets range from February 22, 2018, to August 10, 2018 and ill people range in age from less than 1 year to 72 years. Fifty-six percent of ill people are male, two ill people were hospitalized, and no deaths have been reported. Of five people interviewed, two (40%) reported preparing or eating chicken products.
- Routine samples collected at slaughter and processing establishments showed that the *Salmonella* from these samples closely related genetically to the *Salmonella* from ill people.
- A single, common supplier of raw chicken products or of live chickens has not been identified but because investigation results suggest that this strain of *Salmonella* Infantis is present in both live chickens and in raw chicken products, CDC attempts to work with both the live chicken

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industry and chicken processing facilities in further investigating and implementing interventions to reduce the prevalence of this strain.

- The strain of *Salmonella* Infantis in this outbreak is multi-drug resistant and is not susceptible to common first-line oral antibiotics but advice to clinicians is included below.

### Advice to Consumers/Retailers:

- Consumers do not need to avoid eating properly cooked chicken and retailers do not need to stop selling raw chicken products.
- Raw chicken should be handled carefully, and all raw chicken products should be cooked thoroughly to an internal temperature of 165°F.
- Raw poultry should not be washed before cooking as it can spread germs to other foods and surfaces.
- Raw diets should not be fed to pets, as germs like *Salmonella* in raw pet food can make pets and the people handling the raw food sick.
- Additional guidance on prevention can be found below;  
<https://www.cdc.gov/salmonella/general/prevention.html>

### Advice to Clinicians:

- Most patients with a *Salmonella* infection only require supportive care however antibiotics can be appropriate for certain patients such as those with severe diarrhea, extra-intestinal infections or those with other risk factors for invasive disease.
- This strain of *Salmonella* Infantis is multidrug-resistant and not susceptible to common first-line oral antibiotics such as ciprofloxacin and ceftriaxone but appears to be susceptible to azithromycin, amoxicillin-clavulanic acid, and meropenem.
- Appropriate cultures and antimicrobial susceptibility should be ordered to guide the choice of antibiotic.
- Additional guidance on treatment recommendations can be found below;  
<https://www.cdc.gov/salmonella/infantis-10-18/advice.html>

This investigation is ongoing and additional updates will be provided as more information becomes available.

### Additional Resources:

- CDC investigation Notice  
<https://www.cdc.gov/salmonella/infantis-10-18/index.html>
- IDSA Practice Guidelines for the Diagnosis and Management of Infectious Diarrhea  
<https://academic.oup.com/cid/article/65/12/e45/4557073> 2017
- Salmonella and Food  
<https://www.cdc.gov/features/salmonella-food/index.html>
- FDA Food Safety - Chicken from Farm to Table  
[https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/poultry-preparation/chicken-from-farm-to-table/ct\\_index](https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/poultry-preparation/chicken-from-farm-to-table/ct_index)