

Foodborne *Staphylococcal aureus enterotoxin* Investigation Overview

The following guidelines provide a brief overview of the steps of a Foodborne *Staphylococcal aureus enterotoxin (Staph)* disease investigation which may be caused by eating foods contaminated with toxins produced by the bacterium *Staphylococcus aureus*. Symptoms are typically sudden onset of abdominal cramps, nausea, vomiting and diarrhea.

About 25% of people have *S. aureus* on their skin and in their nose. It usually does not cause illness in healthy people, but *S. aureus* can make toxins that can cause food poisoning. People who carry *S. aureus* can contaminate food if they don't wash their hands before touching it. Foods that are not cooked after handling, or are kept in the temperature danger zone, such as sliced meats, puddings, pastries, and sandwiches may foster the growth of *S. aureus* and the production of toxin.

For additional support, consult the NC Communicable Disease Branch at (919) 733-3419.

Basic Steps of a *Staph* Food Poisoning Investigation Overview

1. Collect clinical information	<ul style="list-style-type: none"> Abdominal cramps, nausea, vomiting, diarrhea
2. Determine the incubation period	<ul style="list-style-type: none"> Very short incubation Onset of symptoms: 30 minutes to 8 hours after consumption of contaminated food or drink Typically resolves within 24 hours
3. Manage the case	<ul style="list-style-type: none"> Determine if requirements for case definition are met Encourage fluid replacement to prevent dehydration During the investigation, interview other exposed individuals for symptoms of illness <ul style="list-style-type: none"> Refer symptomatic individuals to healthcare provider for evaluation Interview the case and complete the Part 2 Form/risk history and clinical packages in NCEDSS
4. Identify source of exposure	<ul style="list-style-type: none"> Review clinical records for potential source(s) of exposure Determine whether there are other ill individuals Is this part of an outbreak? <ul style="list-style-type: none"> If yes, notify CD Branch immediately If there is a recognized cluster of illnesses, consider conducting a cohort study to identify food vehicle Obtain leftover food specimens from identified event if possible If associated with a retail food vendor, obtain specimens from food handlers for testing (swabs from wounds/nasopharyngeal swabs/stool specimens as appropriate)
5. Review Laboratory Information	<ul style="list-style-type: none"> Send specimen(s) to the SLPH/CDC for reference testing after consulting with the CD Branch Specimen should be stool sample or food sample associated with presumed exposure (i.e., not blood specimen, etc.)
6. Implement Control Measures to Prevent Disease and Additional exposures	<ul style="list-style-type: none"> If illness is associated with a retail food establishment (restaurant, caterer, other) Environmental Health Specialist should inspect the facility for potential breakdowns in control and prevention measures Review proper hand washing and other good hygiene practices with food handlers

Resources – <https://www.cdc.gov/foodsafety/diseases/staphylococcal.html>