

# DIAGNOSTIC TOOLS FOR FOODBORNE ILLNESS

## Overview

Each year, 1 in 6 Americans gets sick by consuming contaminated foods or beverages. Of these, 128,000 are hospitalized and 3,000 die.

The cause of illness in your patient is not always clear. By conducting a thorough history and physical exam, and ordering appropriate lab tests, you can narrow the diagnosis and appropriate treatment.

A number of diagnostic tests—such as a stool culture, blood test, or examination for parasites—are available to help you determine the cause of a suspected foodborne illness.

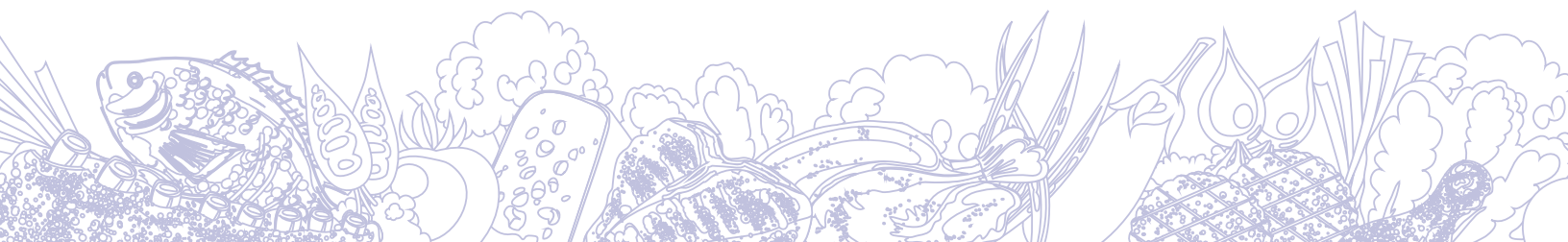
Full information on the processes involved in diagnosing and treating foodborne diseases is available in the Center for Disease Control and Prevention's (CDC) [Diagnosis and Management of Foodborne Illnesses](#) report.

## Recognizing Foodborne Illness

### KNOW THE SIGNS

Because patients get foodborne illness when they consume contaminated food or beverages, the most common symptoms will be gastrointestinal in nature:

- Nausea
- Vomiting
- Abdominal pain
- Diarrhea



In some cases, patients may also experience fever, drowsiness, motor weakness or paralysis. All of these symptoms can range from mild discomfort to very serious, life-threatening illnesses.

Different causative agents will produce different symptoms—and there are many agents to watch out for.

You can go to [CDC.gov](https://www.cdc.gov) for a list of [causative agents](#) and information on each.

## CHECK YOUR PATIENT'S HISTORY

When you suspect a patient has a foodborne illness, it's important to conduct a thorough history and identify underlying conditions that may place your patient at higher risk for certain infections. Risk factors for certain foodborne illnesses can include eating risky foods, such as unpasteurized dairy products and other raw foods.

It's also important to find out if your patient has:

- Been in recent contact with animals;
- Been in contact with sick friends or family;
- Has traveled abroad or has had exposure to a body of water; or
- Recently eaten at restaurants or events with groups of people served common foods.

## Tools for Diagnosing Foodborne Illness

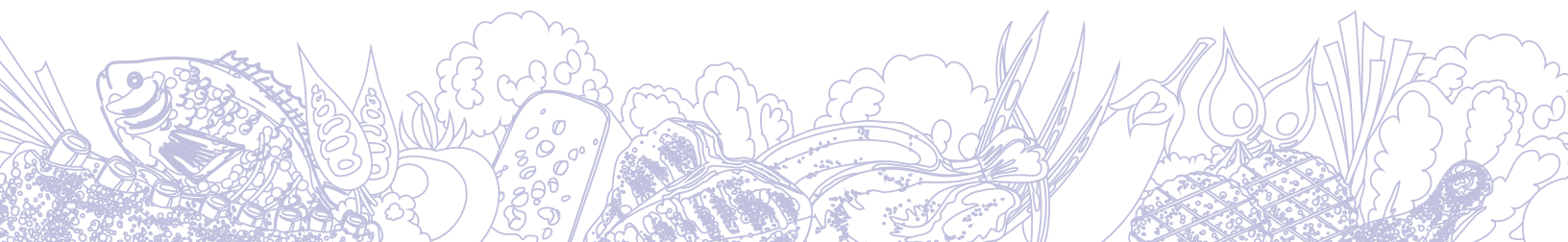
It's important to understand routine specimen collection and testing procedures, and to know when and how it's appropriate to make special test requests.

Some complex tests may only be available from large commercial or public health laboratories.

Possible diagnostic tests include:

### 1. STOOL CULTURES. INDICATED IF:

- Patient has a fever or is immunocompromised
- Patient has bloody diarrhea or severe abdominal pain
- Illness is severe or persistent



## 2. STOOL EXAMINATION FOR PARASITES. INDICATED IF:

- Patient has a travel history that suggests the possibility of parasites
- Patient is immunocompromised
- Diarrhea is chronic, persistent, or unresponsive to appropriate antimicrobial therapy
- Gastrointestinal tract illness appears to have a long incubation period

## 3. BLOOD CULTURES. INDICATED IF:

- Bacteremia or systemic infection is suspected

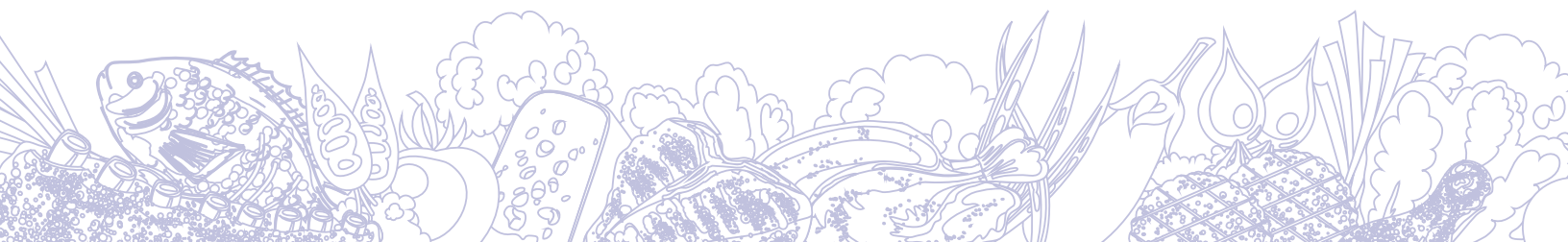
## 4. DIRECT ANTIGEN DETECTION TESTS AND MOLECULAR BIOLOGY TECHNIQUES.

- Available for rapid identification of certain bacterial, viral, and parasitic agents in clinical specimens
- Sometimes, microbiologic and chemical testing of vomitus or food items is warranted
- For more information, consult an appropriate medical specialist, clinical microbiologist, or state public health laboratory.

# Give the Proper Treatment

Because treatments vary widely depending on the type and etiology of the foodborne illness, be sure to tailor treatment to your patient and the illness at hand.

CDC's [Diagnosis and Management of Foodborne Illnesses](#) report has a series of helpful charts with suggested treatments for most foodborne pathogens, including bacterial, viral, parasitic, and non-infectious (chemicals and metals) agents.





## Report the Illness

Local, state, and federal government agencies share responsibility for dealing with foodborne illness outbreaks.

It's your responsibility to report certain confirmed or suspected cases of foodborne illness to your local public health department. It's their responsibility to report those cases to the state health department, which, in turn, report them to [CDC's National Notifiable Diseases Surveillance System](#) (NNDSS).

Prompt reporting of foodborne diseases is critical because it allows for recognition of outbreaks, helps stem further transmission of disease, and identifies whether additional regulatory controls are needed to prevent future outbreaks.

For detailed information on reporting foodborne illnesses, check out U.S. Food and Drug Administration's (FDA) [Reporting Foodborne Illness Fact Sheet](#).

### TAKE ACTION

For additional information on symptoms and diagnostic tools for specific foodborne illnesses, view the [Diagnosis and Management of Foodborne Illnesses Report](#), or,

Order the Diagnosis and Management of Foodborne Illnesses kit, available at no cost by emailing FDA at [CFSANPublication-Re@fda.hhs.gov](mailto:CFSANPublication-Re@fda.hhs.gov) and requesting publication HP 02.

### LEARN MORE

Visit the FDA website at <http://www.fda.gov/educationresource/library>.