

Listeria Outbreak Linked to Enoki Mushrooms



Investigation Notice

Posted November 17, 2022

***Listeria* is especially harmful if you are pregnant, aged 65 or older, or have a weakened immune system. If you are in any of these groups, do not eat raw enoki mushrooms. Cook enoki mushrooms thoroughly to kill any foodborne germs.**

Investigators are working to identify specific brands of enoki mushrooms that may be contaminated with the outbreak strain of *Listeria*. However, many brands of enoki mushrooms have been recalled since the 2020 *Listeria* outbreak linked to enoki mushrooms.

Fast Facts

- Illnesses: 2
- Hospitalizations: 2
- Deaths: 0
- [States](#): 2
- Recall: No
- Investigation status: Active



Listeria in Enoki Mushrooms

Enoki mushrooms are white and have long, thin stems. They are often sold in a bunch with roots in sealed plastic packaging. They are popular in Japanese, Chinese, and Korean food, and they are almost always eaten cooked in soups, hot pots, and stir-fried dishes.

In 2020, CDC investigated the [first known *Listeria* outbreak in the United States linked to enoki mushrooms](#). This outbreak resulted in three recalls of enoki mushrooms that were imported from Korea. Since then, the U.S. Food and Drug Administration (FDA) and public health officials from several states have been collecting samples of enoki mushrooms and found *Listeria* in many samples, resulting in more than 20 recalls of enoki mushrooms.

Source of the Outbreak

Information collected so far shows that enoki mushrooms are the likely source of these illnesses.

Both sick people reported eating enoki mushrooms or eating at restaurants with menu items containing enoki mushrooms. The outbreak strain was previously found in one sample of enoki mushrooms that FDA collected at import. However, to date, the firm associated with this sample has not been identified as a potential source of enoki mushrooms in this outbreak.

Investigators are working to identify specific brands of enoki mushrooms linked to these illnesses.

What People at Higher Risk Should Do

Listeria is especially harmful if you are pregnant, aged 65 or older, or have a weakened immune system due to certain medical conditions or treatments. If you are pregnant, it can cause pregnancy loss, premature birth, or a life-threatening infection in your newborn. Other people can be infected with *Listeria*, but they rarely become seriously ill.

If you are pregnant, aged 65 or older, or have a weakened immune system:

- **Do not eat raw enoki mushrooms. Cook enoki mushrooms thoroughly.**
 - *Listeria* can grow on foods kept in the refrigerator, but it is easily killed by heating food to a high enough temperature.
- **Keep raw enoki mushrooms separate from foods that won't be cooked.**
 - This prevents the spread of *Listeria* germs from enoki mushrooms to foods that you won't cook before eating.

- **Wash your hands after handling raw enoki mushrooms.**
 - [Clean](#) your refrigerator, containers, and surfaces that have touched raw enoki mushrooms.
 - *Listeria* can easily spread among food, surfaces, and hands.
- **Call your healthcare provider right away** if you have any symptoms of severe *Listeria* illness after eating enoki mushrooms:
 - **People who are not pregnant** may experience headache, stiff neck, confusion, loss of balance, and convulsions, in addition to fever and muscle aches.
 - **Pregnant people** usually experience only fever, fatigue, and muscle aches. However, *Listeria* can cause pregnancy loss or premature birth. It can also cause serious illness or death in newborns.

What Restaurants Should Do

- **Do not serve raw enoki mushrooms.**
 - Cook enoki mushrooms thoroughly before serving them to customers.
 - Do not use raw enoki mushrooms as garnish.
 - Do not add raw enoki mushrooms on top of soup dishes right before serving. The enoki mushrooms will not get hot enough to kill *Listeria* germs.
- **Keep raw enoki mushrooms separate from foods that won't be cooked.**
 - This prevents the spread of *Listeria* germs from enoki mushrooms to foods that you won't cook before serving to customers.
- **Follow [FDA's safe handling and cleaning advice](#) if you serve enoki mushrooms.**
 - Employees should wash hands after handling raw enoki mushrooms.

About *Listeria*

- *Listeria* can cause severe illness (known as invasive listeriosis) when the bacteria spread beyond the gut to other parts of the body.
 - Almost all severe illnesses from *Listeria* result in hospitalizations and sometimes death.
- Pregnant people and their newborns, adults 65 years or older, and people with weakened immune systems are at higher risk for severe illness.
 - Other people can be infected with *Listeria*, but they usually get mild food poisoning symptoms, like diarrhea and fever, and usually recover without treatment.

- Symptoms of severe illness usually start within 2 weeks after eating food contaminated with *Listeria*, but may start as early as the same day or as late as 10 weeks after.
 - **People who are not pregnant** may experience headache, stiff neck, confusion, loss of balance, and convulsions, in addition to fever and muscle aches.
 - **Pregnant people** usually experience only fever, fatigue, and muscle aches. However, *Listeria* can cause pregnancy loss or premature birth. It can also cause serious illness or death in newborns.

Laboratory Data

The Michigan Department of Agriculture and Rural Development found *Listeria* in a sample of enoki mushrooms. These mushrooms were collected from a store where a sick person in this outbreak bought enoki mushrooms. The *Listeria* found in this sample is not the outbreak strain, and it is not linked to any reported *Listeria* illness in the United States. On November 17, 2022, Green Day Produce, Inc. [recalled](#) these enoki mushrooms due to *Listeria* contamination.