

Exclusion Guidance for High Risk Groups with Enteric Diseases in Tennessee

Purpose:

The intent of creating exclusion guidance for high risk groups (i.e., food-handlers, childcare workers and attendees, and healthcare workers) with enteric illness is to provide a set of standardized guidance for exclusion, restriction, and reinstatement for the state of Tennessee. This guidance is meant to provide general guidelines for local and regional health departments. However, if other actions are warranted, health departments may deviate from this guidance where they deem necessary. This is intended to provide general consistency and a framework to our response to enteric diseases and their affected groups.

The following guidance has been created by the Tennessee Medical Leadership Team. The Red Book, 28th edition, Control of Communicable Diseases Manual, 19th edition, and the 2009 Food Code (effective 7/15/2015) were the resources used to develop this guidance. All guidance listed for food-handlers were directly derived from the 2009 Food Code (for more information, see <http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/ucm181242.htm>). Definitions of select words are listed at the end of this section.

Guidance for Food-handlers¹

Any Shiga-toxin producing *E. coli* (STEC)

Exclusion of Exposed Worker

If the food-handler was exposed² to any STEC pathogen, the food-handler should be placed on **restriction**³ if they work in a food establishment that serves a highly susceptible population⁴.

Exclusion of Diagnosed but Asymptomatic Worker—Not Highly Susceptible Population

If diagnosed with STEC but asymptomatic, the food-handler may work under **restriction** as long as they do not serve a highly susceptible population.

Exclusion of Diagnosed but Asymptomatic Worker—Highly Susceptible Population

If the diagnosed food-handler is asymptomatic but does work with a highly susceptible population, then the employee must be **excluded**⁵ from work.

Exclusion of Diagnosed and Symptomatic Worker

If the diagnosed food-handler has symptoms, then the employee must be **excluded** from work.

Reinstatement of Exposed Worker

If exposed to STEC, the food-handler may be **reinstated** if:

- More than three days have passed since the last day of potential exposure, OR
- The employee's household contact has been asymptomatic for more than three days

Reinstatement Criteria for Excluded or Restricted Worker

A food-handler that has been excluded or restricted due to STEC infection can only be **reinstated** with the approval of the Tennessee Department of Health and either:

- Written medical documentation stating that the food-handler is free of STEC infection based on two negative stools cultures. If placed on antibiotics by his/her provider, cultures should be taken no earlier than 48 hours after discontinuation of antibiotics and taken 24 hours apart, OR
- The food-handler is no longer symptomatic, and has been asymptomatic for at least seven days, OR
- The food-handler did not ever develop symptoms and more than seven days have passed since diagnosis

Shigella

Exclusion of Exposed Worker

If the food-handler was exposed to *Shigella*, they should be **restricted** if they serve a highly susceptible population.

Exclusion of Diagnosed but Asymptomatic Worker—Not Highly Susceptible Population

For food-handlers diagnosed with *Shigella*, the employee should be **restricted** in their work if they are asymptomatic and not serving a highly susceptible population.

Exclusion of Diagnosed but Asymptomatic Worker—Highly Susceptible Population

If the diagnosed food-handler is asymptomatic but does serve a highly susceptible population, the food-handler is to be **excluded** from work.

Exclusion of Diagnosed and Symptomatic Worker

If the diagnosed food-handler has symptoms, then the food-handler is to be **excluded** from work.

Reinstatement of Exposed Worker

If exposed to *Shigella*, the food-handler may be **reinstated** if:

- More than three days have passed since the last day they were potentially exposed, OR
- Had a household contact that has been asymptomatic for more than three days

Reinstatement Criteria for Excluded or Restricted Worker

The excluded or restricted food-handler can only be **reinstated** if the person in charge⁶ obtains approval from the Tennessee Department of Health, and have either:

- Written medical documentation stating they are free of *Shigella* infection based on two negative stool cultures. If placed on antibiotics by his/her provider, cultures should be taken no earlier than 48 hours after discontinuation of antibiotics and 24 hours apart, OR
- The food-handler is no longer symptomatic, and has been asymptomatic for at least seven days, OR
- The food-handler did not ever develop symptoms and more than seven days have passed since diagnosis

Hepatitis A

Exclusion of Exposed Worker

If the food-handler was exposed to Hepatitis A, they should be **restricted** if they work in a food establishment serving a highly susceptible population.

Exclusion of Diagnosed Worker

If the food-handler is diagnosed with Hepatitis A, they are to be **excluded** from work even without developing symptoms, but especially if diagnosed and the onset of jaundice occurred within last seven days or had onset of any other symptoms within last 14 days.

Reinstatement of Exposed Worker

The exposed employee can be **reinstated** to full work without restriction if either:

- The food employee is immune to Hepatitis A due to prior illness, vaccination or IgG administration, OR
- More than 30 days have passed since they were potentially exposed, OR
- More than 30 days have passed since the employee's household contact became jaundice, OR
- The employee does not use a procedure that allows bare hand contact with ready-to-eat food until at least 30 days after the potential exposure. The food employee must also receive education about transmission and proper hand washing practices

Reinstatement Criteria for Excluded Worker

The excluded food-handler can only be **reinstated** if the person in charge obtains approval from the Tennessee Department of Health, and either:

- Has been jaundice for more than seven calendar days, OR
- Has had other symptoms other than jaundice for more than 14 calendar days, OR
- Has written medical documentation stating that they are free of Hepatitis A infection

Salmonella Typhi

Exclusion of Exposed Worker

If the food-handler was exposed to *Salmonella Typhi*, the food-handler should be **restricted** in their work activities if they serve a highly susceptible population.

Exclusion of Diagnosed Worker

A food-handler is to be **excluded** from working if they have a diagnosis of *Salmonella Typhi* or have a report of diagnosis within the last three months without having antibiotic therapy.

Reinstatement of Exposed Worker

The restricted food employee may be fully **reinstated** if:

- More than 14 days have passed since the last day they were potentially exposed, OR
- Their household contact had been asymptomatic for more than 14 days

Reinstatement Criteria for Excluded Worker

The food-handler may be **reinstated** if the person in charge obtains approval from the Tennessee Department of Health (TDH), AND has written medical documentation that states they are free of *Salmonella Typhi* infection. Approval from TDH for reinstatement will be on a case-by-case basis. Consult with central office for more guidance as needed.

Norovirus

Exclusion of Exposed Worker

If the food-handler was exposed to norovirus, the food-handler should be **restricted** if they work in a food establishment serving a highly susceptible population.

Exclusion of Diagnosed but Asymptomatic Worker—Not Highly Susceptible Population

A food-handler should be **restricted** in their working activities if diagnosed with norovirus but asymptomatic and does not serve a highly susceptible population.

Exclusion of Diagnosed but Asymptomatic Worker—Highly Susceptible Population

If the food employee is diagnosed and asymptomatic but does serve a highly susceptible population, then the food employee should be **excluded** from work.

Exclusion of Diagnosed and Symptomatic Worker

If the diagnosed food-handler has symptoms, then the food-handler is to be **excluded** from work.

Reinstatement of Exposed Worker

If exposed to norovirus, the food-handler may be **reinstated** if:

- More than 48 hours have passed since they were last potentially exposed, OR
- The employee's household contact has been asymptomatic for more than 48 hours

Reinstatement Criteria for Excluded or Restricted Worker

The excluded or restricted food-handler can be **reinstated** to work if the person in charge obtains approval from the Tennessee Department of Health, and has either:

- Written medical documentation stating that they are free from norovirus infection, OR
- The employee has been asymptomatic for at least 48 hours, OR
- They did not ever develop symptoms and more than 48 hours had passed since diagnosed

Non-Typhi *Salmonella*

Exclusion of Worker

If diagnosed with non-Typhi *Salmonella*, the food employee should be **excluded** while symptomatic or if asymptomatic but with questionable hygienic practices.

Reinstatement Criteria for Excluded Worker

The food employee can be **reinstated** if asymptomatic for at least 48 hours.

Other enteric pathogens⁷

If diagnosed with another enteric pathogen, the food-handler should be **excluded** from work until they are asymptomatic for at least 48 hours. If symptomatic with vomiting and diarrhea but without a diagnosis of an enteric disease, food employees should still be excluded until they are asymptomatic for at least 48 hours or can give written medical documentation that their symptoms are from a non-infectious condition.

NOTE: Food-handlers that do not serve a highly susceptible population that were excluded for being symptomatic and diagnosed with *Shigella* or STEC can return to work under **restriction** if symptoms have resolved for at least 48 hours. The food-handler can be fully reinstated once they meet their respective reinstatement criteria for the specific pathogen, as listed above.

Guidance for Childcare Workers⁸

Any Shiga-toxin producing *E. coli* (STEC): Workers with STEC infection are to be excluded from work until they have two negative stool cultures. If placed on antibiotics by his/her provider, cultures should be taken 48 hours since the discontinuation of antimicrobial therapy, and taken 24 hours apart.

Shigella: Childcare workers with *Shigella* should be excluded from work until at least 48 hours after diarrhea resolves, and have produced two negative stool cultures. If placed on antibiotics by his/her provider, cultures should be taken 48 hours since the discontinuation of antimicrobial therapy, and taken 24 hours apart.

Hepatitis A: Childcare workers with Hepatitis A should be excluded from work until at least one week after onset of illness or jaundice.

Salmonella Typhi/Paratyphi: Childcare workers with *Salmonella* Typhi should be excluded from work until they are without diarrhea for at least 48 hours. If a childcare worker handles food, then they should be excluded from the childcare setting until they produce three consecutive negative stool cultures, taken at least one week after completion of antibiotic treatment, and taken at least 24 hours apart.

Norovirus: Childcare workers with norovirus should be excluded from work until 48 hours after symptoms resolve.

Non-Typhi *Salmonella*: Childcare workers with non-Typhi *Salmonella* should be excluded from work while symptomatic, and until at least 48 hours have passed since symptoms resolved.

Other enteric pathogens: Childcare workers with infections from other enteric pathogens should be excluded from work until at least 48 hours have passed since symptoms resolved.

Guidance for Children Attending Childcare Setting⁹

Any Shiga-toxin producing *E. coli* (STEC): Children with any STEC infection should be excluded from a childcare setting until diarrhea resolves, and they produce two negative stool cultures. If placed on antibiotics by his/her provider, cultures should be taken at least 48 hours after the discontinuation of antimicrobial therapy, and taken 24 hours apart.

Shigella: Children (age 6 weeks to pre-kindergarten) with *Shigella* should be excluded from a childcare setting until at least 48 hours have passed since diarrhea resolved, and the child produces one negative stool culture. If placed on antibiotics by his/her provider, cultures should be taken at least 48 hours after discontinuation of antimicrobial therapy. Children in grades K-12 may return to school and/or after-school programs when they have been asymptomatic for at least 48 hours. NOTE: If the case is a kindergartner, a negative stool culture may be required for return based on the discretion of the public health jurisdiction.

Hepatitis A: Children with Hepatitis A should be excluded from a childcare setting until at least one week after onset of illness or jaundice.

Salmonella Typhi/ Paratyphi: Children under the age of 5 years old with *Salmonella* Typhi should be excluded from a childcare setting until diarrhea resolves and the child produces three negative stool cultures, taken at least one week after completion of antibiotic treatment, and taken at least 24 hours

apart. If the child is 5 years old or older, the child should be excluded until at least 48 hours have passed since diarrhea resolved. Consult with central office for more guidance as needed.

Norovirus: Children with norovirus should be excluded from a childcare setting until 48 hours have passed since symptoms resolved.

Non-Typhi *Salmonella*: Children with non-Typhi *Salmonella* should be excluded from a childcare setting while symptomatic and until at least 48 hours have passed since symptoms resolved.

Other enteric pathogens: Children with infections from other enteric pathogens should be excluded from a childcare setting until at least 48 hours have passed since symptoms resolved.

Guidance for Healthcare Workers¹⁰

Any Shiga-toxin producing *E. coli* (STEC): Healthcare workers with any STEC infection should be excluded from work until they produce two negative stool cultures. If placed on antibiotics by his/her provider, cultures should be taken at least 48 hours after discontinuation of antimicrobial therapy and 24 hours apart.

Shigella: Healthcare workers with *Shigella* should be excluded from work until they produce two negative stool cultures. If placed on antibiotics by his/her provider, cultures should be taken at least 48 hours after discontinuation of antimicrobial therapy and 24 hours apart.

Hepatitis A: Healthcare workers with Hepatitis A should be excluded from work until at least one week after onset of illness or jaundice.

Salmonella Typhi/ Paratyphi: Healthcare workers with *Salmonella* Typhi should be excluded from work until they produce three consecutive negative stool cultures, taken at least one week after completion of antibiotic treatment, and taken at least 24 hours apart.

Norovirus: Healthcare workers with norovirus should be excluded from work until 48 hours have passed since symptoms resolved.

Non-Typhi *Salmonella*: Healthcare workers with non-Typhi *Salmonella* should be excluded from work while symptomatic, and until at least 48 hours have passed since symptoms resolved.

Other enteric pathogens: Healthcare workers with infections from other enteric pathogens should be excluded from work until at least 48 hours have passed since symptoms resolved.

Guidance Concerning Culture-Independent Diagnostic Test Results

Positive results from culture-independent diagnostic testing (CIDT) are to be considered suspect cases (with the exception of *Campylobacter* and *Cryptosporidium*). All positive test results using CIDT should have a follow-up culture (e.g., through the State Public Health Laboratory) for confirmation. Healthcare workers, food-handlers, and childcare workers or attendees with a positive culture-independent test are to be excluded from the workplace or childcare setting while culture confirmation is in progress. If the confirmatory stool culture is positive, the individual is to remain excluded until their respective reinstatement criteria are met. If an individual with a positive STEC result using a culture-

independent method produces a negative stool culture, a second stool culture is recommended to confirm negative status. Please consult with central office with questions concerning confirmation testing based on Shiga toxin type. If follow-up stool cultures cannot be done by a local healthcare provider, the Tennessee Department of Health can provide the needed testing for reinstatement.

Definitions:

¹ Food-handler— defined as someone with direct contact with food

² Exposure— defined as exposed to or are the suspected source of a confirmed outbreak; has been exposed by attending or working in a setting where there is a confirmed outbreak; living in the same household as an individual who works or attends a setting where there is a confirmed outbreak; or living in the same household as an individual diagnosed with an illness caused by norovirus (in the past 48 hours of the last exposure), enterohemorrhagic or STEC or *Shigella* spp. (within the past 3 days of last exposure), *Salmonella* Typhi (within the past 14 days of the last exposure), or Hepatitis A (within the past 30 days of last exposure)

³ Restrict— to limit the activities of a food employee so that there is no risk of transmitting a disease that is transmissible through food; and the food employee does not work with exposed food, clean equipment, utensils, linens, or unwrapped single-service or single-use articles

⁴ Highly susceptible population— persons who are more likely than other people in the general population to experience foodborne disease because they are: immunocompromised (i.e., preschool age children or older adults) and are obtaining food at a facility that provides services such as custodial care, health care, or assisted living (i.e., a child or adult day care center, kidney dialysis center, hospital or nursing home, or nutritional or socialization services such as a senior center)

⁵ Exclude— to prevent a person from working as an employee in a food establishment or entering a food establishment as an employee

⁶ Person in charge— defined as the individual present at a food establishment who is responsible for the operation at the time of inspection

⁷ Other enteric pathogens—defined as *Campylobacter*, Listeriosis, *Vibrio* spp., *Cryptosporidium*, Giardiasis

⁸ Childcare worker— defined as providing care outside of the home for children for less than 24-hour periods without transfer of custody

⁹ Childcare attendee— defined as a child receiving care outside of the home for less than 24-hour periods without transfer of custody

¹⁰ Healthcare worker— defined as someone with direct patient care

References

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	Exposure to Norovirus, STEC, <i>Salmonella</i> Typhi, <i>Shigella</i> , or Hepatitis A for Food-handlers ^{1**†}	Food-handlers ^{1*†}	Childcare Workers*	Children in Daycare*	Healthcare Workers*
STEC	<u>Restrict</u> : the employee who works in a food establishment serving a highly susceptible population; <u>Reinstate</u> : if 1) more than 3 days have passed since last day they were potentially exposed, or 2) employee's household contact has been asymptomatic for more than 3 days	<u>Restrict</u> person diagnosed with STEC: if diagnosed but asymptomatic and works in a food establishment not serving a highly susceptible population; <u>Exclude</u> if diagnosed and symptomatic, or asymptomatic but serves a highly susceptible population; <u>Reinstate</u> : person in charge obtains approval from the department and has either 1) written medical documentation stating they are free of STEC based on 2 negative stools taken no earlier than 48 hours after antibiotics and 24 hours apart, 2) been asymptomatic for 7 days, or 3) didn't develop symptoms and more than 7 days have passed since diagnosed	Exclusion until two negative stool cultures, taken 24 hours apart, and 48 hours after stopping antimicrobial therapy ³	Exclusion until two negative stool cultures, taken 24 hours apart, and after at least 48 hours after stopping antimicrobial therapy ²	Exclusion until two negative stool cultures, taken 24 hours apart, and 48 hours after stopping antimicrobial therapy ³
<i>Shigella</i>	<u>Restrict</u> : the employee who works in a food establishment serving a highly susceptible population; <u>Reinstate</u> : if 1) more than 3 days have passed since last day they were potentially exposed, or 2) employee's household contact has been asymptomatic for more than 3 days	<u>Restrict</u> person diagnosed with <i>Shigella</i> : if diagnosed but asymptomatic and works in a food establishment not serving a highly susceptible population; <u>Exclude</u> if diagnosed and symptomatic, or asymptomatic but serves a highly susceptible population; <u>Reinstate</u> : person in charge obtains approval from TDH and has either 1) written medical documentation stating they are free of <i>Shigella</i> infection based on 2 negative stools taken not earlier than 48 hours after antibiotics and 24 hours apart, 2) been asymptomatic for 7 days, or 3) didn't develop symptoms and more than 7 days have passed since diagnosed	Exclusion until 48 hours after diarrhea resolves and two negative stool cultures, taken at least 48 hours after completing antimicrobial therapy, and 24 hours apart ²	6 weeks old to Pre-k: Exclusion until 48 hours after diarrhea resolves and one negative stool culture, taken 48 hours after completing antimicrobial therapy. ^{2,6} Children K-12 may return to school no earlier than 48 hours after symptoms resolve. NOTE: A negative stool culture may be required for a kindergartner, per public health discretion ⁷	Exclusion until two negative stool cultures, taken 48 hours after completing antimicrobial therapy, and 24 hours apart ³
Hepatitis A	<u>Restrict</u> : the employee who works in a food establishment serving a highly susceptible population; <u>Reinstate</u> : if 1) food employee is immune to Hep A due to prior illness, vaccination, or IgG administration, 2) more than 30 days have passed since they were potentially exposed, 3) been more than 30 days since employee's household contact became jaundice, or 4) the employee doesn't use an alternative procedure that allows bare hand contact with ready-to-eat food until at least 30 days after the potential exposure; food-handler must also receive education about transmission and hand-washing	<u>Exclude</u> : if diagnosed, even without developing symptoms, but especially if jaundice and the onset occurred in the last 7 days, or diagnosed with Hep A within 14 days from onset of any illness symptoms; <u>Reinstate</u> : person in charge obtains approval from TDH, and if they have been jaundice for more than 7 calendar days, have been symptomatic with other symptoms other than jaundice for more than 14 calendar days, or have written medical documentation that they are free of Hep A	Exclusion until 1 week after onset of illness or jaundice ²	Exclusion until 1 week after onset of illness or jaundice ²	Exclusion until 1 week after onset of illness or jaundice ³

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<i>Salmonella</i> Typhi/Paratyphi	<u>Restrict</u> : the employee who works in a food establishment serving a highly susceptible population; <u>Reinstate</u> : if 1) more than 14 days have passed since last day they were potentially exposed, or 2) employee's household contact has been asymptomatic for more than 14 days	<u>Exclude</u> : if diagnosed with <i>Salmonella</i> Typhi, or if report of diagnosis within last 3 months without antibiotic therapy; <u>Reinstate</u> : if obtains approval from the department, AND there is written medical documentation that states they are free of <i>Salmonella</i> Typhi infection. Consult with central office for more guidance as needed	Exclude until 48 hours without diarrhea. If the worker handles food, then they should be excluded until they produce three consecutive negative stool cultures, taken at least one week after completion of antibiotic treatment, and at least 24 hours apart ^{4,5}	<5 y/o: Exclusion until diarrhea resolves; three negative stool cultures required before readmission, taken at least one week after completion of antibiotic therapy and at least 24 hours apart; if ≥ 5 y/o: exclude until 48 hours of no diarrhea ^{2,4}	Three consecutive negative stool cultures that are taken at least one week after completion of antibiotic treatment, and taken at least 24 hours apart ⁴
Norovirus	<u>Restrict</u> : the employee who works in a food establishment serving a highly susceptible population; <u>Reinstate</u> : if 1) more than 48 hours have passed since last day they were potentially exposed, or 2) employee's household contact has been asymptomatic for more than 48 hours	<u>Restrict</u> person diagnosed with Norovirus: if diagnosed but asymptomatic and works in a food establishment not serving a highly susceptible population; <u>Exclude</u> : if diagnosed and asymptomatic but serves a highly susceptible population; <u>Reinstate</u> : person in charge obtains approval from TDH, and has 1) written medical documentation stating they are free of norovirus infection, 2) been asymptomatic for at least 48 hours, or 3) didn't develop symptoms and more than 48 hours has passed since diagnosed	Exclusion while ill until 48 hours after symptoms resolve ²	Exclusion while ill until 48 hours after symptoms resolve ²	Exclusion while ill until 48 hours after symptoms resolve ²
Non-Typhi <i>Salmonella</i>	No information given in food code	<u>Exclude</u> while symptomatic; exclude if asymptomatic food-handler has questionable hygiene practices; can return to work after being asymptomatic for at least 48 hours	Exclusion while symptomatic; can return to work after being asymptomatic for at least 48 hours ²	Exclusion while symptomatic; can return to childcare after being asymptomatic for at least 48 hours ²	Exclusion while symptomatic; can return to work after being asymptomatic for at least 48 hours
Other enteric pathogens‡	No information given in food code	<u>Exclude</u> while symptomatic; can return to work after being asymptomatic for at least 48 hours	Exclude while symptomatic; can return to work after being asymptomatic for at least 48 hours	Exclude while symptomatic; can return to childcare after being asymptomatic for at least 48 hours	Exclude while symptomatic; can return to work after being asymptomatic for at least 48 hours

*Food-handler is defined as someone with direct contact with food; a healthcare worker is defined as someone with direct patient care; a childcare worker and attendee are defined as attending or providing care outside of the home for children, for less than 24-hour periods without transfer of custody.

**Exposure defined as exposed to, or suspected source of a confirmed outbreak; has been exposed by attending or working in a setting where there is a confirmed outbreak, or living in the same household as an individual who works or attends a setting where there is a confirmed outbreak; or living in the same household as an individual diagnosed with an illness caused by norovirus (in the past 48 hours of the last exposure), enterohemorrhagic or STEC or *Shigella* spp. (within the past 3 days of last exposure), *Salmonella* Typhi (within the past 14 days of the last exposure), or Hepatitis A (within the past 30 days of last exposure)

†Recommendations based off of 2009 Food Code that will take effect in TN on July 2015

‡Other enteric pathogens defined as *Campylobacter*, *Listeriosis*, *Vibrio* spp., *Cryptosporidium*, *Giardiasis*

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	Exposure to Norovirus, STEC, <i>Salmonella</i> Typhi, <i>Shigella</i> , or Hepatitis A for Food-handlers ^{1**†}	Food-handlers ^{1*†}	Childcare Workers*	Children in Daycare*	Healthcare Workers*

Other Food Code Note: If a food-handler is excluded because of having general symptoms of vomiting or diarrhea (no diagnosis): reinstate the previously symptomatic worker when asymptomatic for at least 48 hours or can give written medical documentation that it symptoms are from noninfectious condition

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¹U.S. Food and Drug Administration. (2009). Employee Health. In *Food Code 2009 Recommendations of the United States Public Health Service, Food and Drug Administration* (chapter 2). Retrieved from <http://www.fda.gov/downloads/Food/GuidanceRegulation/UCM189448.pdf>

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