
What do I do to remove the *E. coli* from my public water system? (continued)

Unchlorinated Systems:

- Chlorine dosage rates should be increased.
- Free chlorine residuals should be tested at remote areas of the system and chlorine dosages increased until at least a 0.2 mg/1 residual is detected at all points in the system. As soon as the minimum residual is maintained throughout the system, notify DWS to discuss removing the boil water notice.

If a free chlorine residual cannot be maintained:

- Distribution water samples should be collected immediately in the areas of inadequate chlorine residual and analyzed for coliform bacteria and HPC.
- If the coliform bacterial results are negative, notify DWS to discuss removing the boil water notice.
- If the results are unsatisfactory, boil water notices should remain in effect; and the DPH DWS should be notified to discuss further actions.

Investigation

It is essential to conduct an investigation of the water system to locate the cause of the *E. coli* positive sample. This includes sampling individual sources, storage tank(s) etc. A positive *E. coli* sample may be indicative of a breach within the water system.

For additional information:

U.S. Environmental Protection Agency:
<http://www.epa.gov/safewater/ecoli.html>

U.S. Centers for Disease Control and Prevention:
http://www.cdc.gov/ncidod/dbmd/diseaseinfo/escherichiacoli_g.htm

Considerations for Owners & Operators of:

Daycares:

- RCSA Section 19a-87b-9(i)
- If total coliform positive→ use bottled water for drinking.
- If *E. coli* positive→ use bottled water for drinking and hand sanitizers for hand washing.
- Contact Local Health Department.

Food Establishments:

- Contact Local Health Department.
- RCSA Section 19-13-B42(g)
- Ice machines or beverage dispenser systems that are directly connected to the water supply cannot be used. Bottled and canned beverages may be served.
- Additional precautions should be taken to wash dishes and prepare food.
- Contact Local Health Department.

Schools:

- Use boiled or bottled water for all preparation of food and for drinking.
- Use hand sanitizer for hand washing. Ice machines or beverage dispenser systems that are directly connected to the water supply cannot be used.
- Contact Local Health Department.
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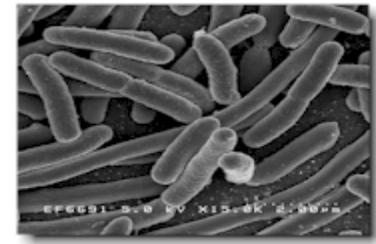
STATE OF CONNECTICUT

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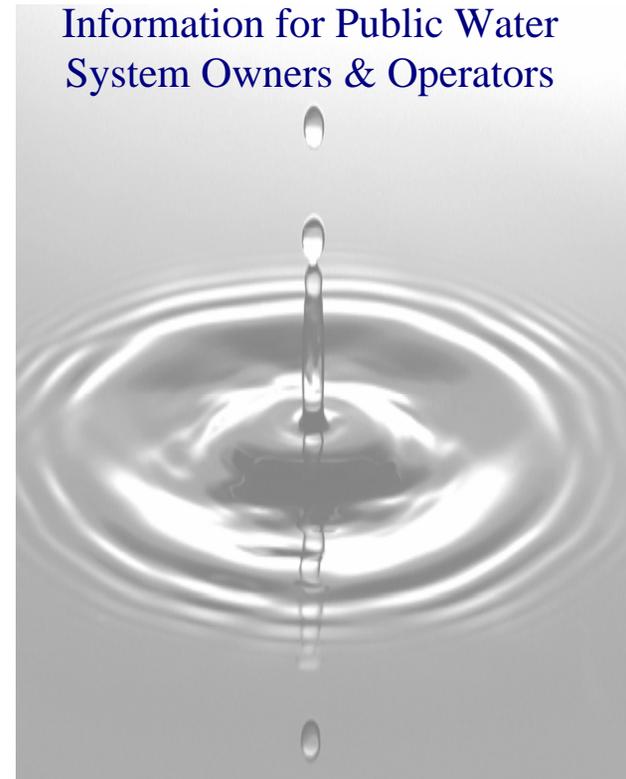
Connecticut Department of Public Health

Drinking Water Section

E. coli in Drinking Water

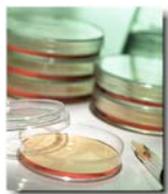


Information for Public Water System Owners & Operators



What is *E. coli* and where does it come from?

- *E. coli* is a type of fecal coliform bacteria commonly found in the intestines of animals humans.
- The presence of *E. coli* in water is a strong of recent sewage or animal waste contamination.
- During rainfalls or snowmelts, *E. coli* may washed into creeks, rivers, streams, lakes, or groundwater.
- When these waters are used as sources of drinking water and the water is not protected, treated or poorly treated, *E. coli* may get into drinking water.
- There are many different strains of *E. coli*. most severe is *E. coli* O157:H7, which makes strong toxin and can cause severe illness.



What do I do if a total coliform sample is positive?

NOTE: The total coliform-positive sample must be further analyzed by a Department of Public Health (DPH) Certified laboratory to determine if fecal coliforms or *E. coli* are present.

- When a routine sample is total coliform-positive, your system must collect a set of repeat samples within twenty-four (24) hours of the original positive result. [See below: Table 2 of the Regulations of Connecticut State Agencies (RCSA)].
- It is strongly encouraged that you contact the Drinking Water Section (DWS) at (860) 509-7333 when a routine sample is total coliform-positive.

Regulations of Connecticut State Agencies Section 19-13-B102(G)

Table 2 - Monitoring Requirements Following A Total Coliform-Positive Routine Sample:

Routine Samples/Mont	Repeat Samples ⁽¹⁾	Routine Samples
		Next Month ⁽²⁾
1/Mo. or fewer	4	5/Mo.
2/Mo.	3	5/Mo.
3/Mo.	3	5/Mo.
4/Mo.	3	5/Mo.
5/Mo. or more	3	Table 1 ⁽³⁾

- (1) Number of repeat samples in the same month for each total coliform-positive routine sample.
- (2) Except where the department has invalidated the original routine sample.
- (3) System need not take any additional samples beyond those it is required to take according to Table 1.

What do I do if a total coliform-positive sample is *E. coli*-positive?

- Initiate consultation with the DWS immediately, but no later than ninety-six (96) hours from the time the positive sample was collected. The DWS can be contacted at (860) 509-7333 during office hours (M-F, 8:30 a.m.– 4:30 p.m.), or after hours at (860) 509-8000.
- An *E. coli*-positive violation requires a Tier 1 notice as defined in RCSA Section 19-13-B102(i) (1)
- A Tier 1 notice requires you to;
 - Provide a public notice to your customers as soon as practical but no later than twenty-four (24) hours after your system learns of the violation.
 - Issue a boil water notice.
- Forms of public notice delivery include:
 - Appropriate broadcast media, such as radio and television;
 - Hand delivery of the notice to persons served by the public water system;

- Posting the notice in conspicuous locations throughout the distribution system and frequented by persons served by the public water system;
- Another delivery method approved in writing by the DPH DWS.

What do I do to remove the *E. coli* from my public water system?

Un-chlorinated Systems:

- The well(s), storage tank(s) and distribution system should be disinfected properly in accordance with AWWA Standards until a minimum of 0.2 mg/l of chlorine residual at all system extremities. In addition, you may refer to DPH's "Disinfection of a Well Water Supply" document to review well disinfection procedures. This document can be found on the DWS website.
- Distribution water samples should be collected as soon as chlorine residual has dissipated and analyzed for coliform bacteria and heterotrophic plate count (HPC).
- If the coliform bacterial results are negative, contact the DWS about removing the boil water notice. The boil water notice may only be lifted with the approval of the DWS.
- If the results are unsatisfactory, boil water notices should remain in effect, the DWS should be notified, and chlorination of the system implemented again.
- Consumers should be notified that the water is safe to consume only after all chlorine has been flushed from the system and distribution samples of un-chlorinated water indicate satisfactory bacterial results.

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