Total Coliform Bacteria

What is total coliform bacteria?

Coliforms are bacteria that can be divided into fecal coliforms and *E. coli*. Both fecal coliforms and *E. coli* are indicative of animal and/or human waste contamination.

How does total coliform bacteria get into my well water?

Coliforms are naturally present in the environment. Many coliforms are harmless to humans; however, the presence of coliforms in your groundwater is indicative of potential other unsafe micro-organisms. Risk factors for increased exposure to coliforms include close proximity to animal farming (associated higher levels of nitrates/nitrites in well water) and poor well construction such as uncapped wells and cracking in the seals. Ensure your well is properly capped and has been inspected for cracks and other foundational issues.

What are the health effects of total coliform bacteria?

Short-term effects include cramps, nausea, diarrhea, and headaches. If any coliform bacteria is ingested, your risk of water-borne illness increases. The EPA has a Total Coliform Rule (TCR) which designates a presence or absence of total coliforms. However, private wells are not in alliance with EPA regulation and individual well owners are responsible for testing and water supply maintenance. For further reading on the health effects of total coliform bacteria, please visit http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/librar y/ground_fact_sheets/pdfs/coliform(020715)_fin2.pdf.

Who is most affected by total coliform bacteria?

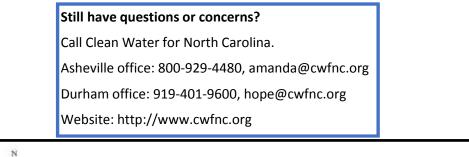
Infants, young children, and immuno-compromised individuals are at most risk for health concerns with coliforms.

Recommended Safety Standards NC groundwater: 1.0% EPA drinking water: presence/absence



How do I know if my well water is contaminated with total coliform bacteria?

If your well was installed before July 2008, call your local environmental health office and ask for the well program or contact Clean Water for North Carolina if you are unsure of the appropriate point of contact for your area. The majority of counties in NC will offer free water testing with a doctor's note due to symptoms correlated with contaminated water (i.e. nausea, diarrhea, vomiting).



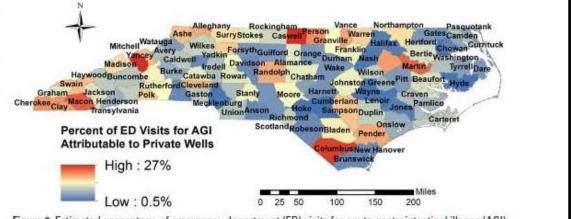


Figure 2. Estimated percentage of emergency department (ED) visits for acute gastrointestinal illness (AGI) attributable to private wells [Map data, Minnesota Population Center (2011)].