

Drinking Water Testing

What to test for?

Testing water for every potential contaminant is possible, but very expensive and usually not necessary. It is more important to test on a regular basis for a few indicators of contamination and maintain a record of the results!

A routine water test for a well often includes:

- 1) **Total Coliform Bacteria.** Coliform bacteria are a type of bacteria that are found in animal wastes, soils, and decomposing plant materials. When this test is conducted the results indicate how many “colony forming units” of bacteria were detected. A positive result indicates that the well water may be exposed to surface runoff, decaying vegetation (i.e. leaves or grass clippings), pet wastes, or septic system effluent. If the test is positive, most labs will automatically conduct a follow-up test for *E. coli* or fecal coliform bacteria to narrow down the source of the contamination. Fecal coliform bacteria are only found in the fecal matter of humans and warm-blooded animals.
- 2) **Nitrates.** Nitrates are a tasteless, odorless contaminant that originates from livestock, fertilizers/manure, and septic systems. Babies are most sensitive to nitrate in drinking water. Consumption of water with a high nitrate concentration puts the baby at a risk of developing methemoglobinemia or “blue baby syndrome.”
- 3) **Total Dissolved Solids.** Testing for the concentration of total dissolved solids (TDS) is a comprehensive indicator in routine testing. The TDS is a measure of the inorganic or organic materials dissolved in the water. If water test records show that a change in the concentration of dissolved solids has occurred, further tests are required to identify the substance(s) causing the change.
- 4) **pH.** Water with a pH less than 6.5 tends to be corrosive, while water with a pH greater than 8.5 tends to have an alkaline taste. PH may affect the efficiency of water treatment processes.



Cornell University
Cooperative Extension
of Onondaga County

Cornell Cooperative Extension of Onondaga County
220 Herald Place, 2nd Floor
Syracuse, New York 13202
(315) 424-9485
Web: www.cce.cornell.edu/onondaga