

How to Test Water Quality

Free Printable Checklist • EcoEngineering Hub • by Dr. Allaoui

Step-by-Step Home Testing Instructions

- 1. **Collect a clean sample.** Run the tap 30 seconds, then fill a sterile container without touching the inside.
- 2. **Check the basics.** Note color, clarity, and odor before testing — early signs of contamination.
- 3. **Run your test kit.** Dip the strip or use drops; compare the color change to the kit's chart.
- 4. **Record the results.** Log the date and each reading using the sheet below.
- 5. **Decide whether to escalate.** If a reading is out of range, retest — then send to a certified lab if it holds.

Safe-Range Chart: Common Parameters

Parameter	Safe Range	If It's High
pH	6.5 – 8.5	Corrosive plumbing, bitter taste
Total coliforms	0 CFU/100 mL	Possible bacterial contamination
Nitrates	Below 10 mg/L	Risk to infants; runoff/fertilizer source
Lead	Below 0.015 mg/L	Neurological risk, esp. children
Chlorine	0.2 – 4 mg/L	Taste/odor issues, or under-disinfection

Water Testing Log Sheet

Date	pH	Chlorine	Hardness	Nitrates	Notes

When to Call a Certified Lab: Quick Flowchart

Did a reading fall outside the safe range above?
↓ YES → Retest once. ↓ NO → Continue routine home testing.
Still out of range after retesting?
↓ YES → Contact a state-certified lab. ↓ NO → Log it and move on.
Suspected bacteria, lead, arsenic, or VOCs — or water tied to a real estate sale, insurance claim, or health concern?
↓ YES → Skip home kits — go straight to a certified lab.