

GREEN OR DISCOLORED HOT TUB WATER: TROUBLESHOOTING FLOWCHART

USE THIS GUIDE WHEN YOUR HOT TUB WATER TURNS GREEN, YELLOW, BROWN, GRAY, OR MILKY.

WATER SHOULD BE:

- ✓ Clear, Odor-Free
- ✓ Properly Balanced



1 WHAT DIFFERENT COLORS MEAN

GREEN WATER	BROWN WATER	YELLOW WATER	GRAY / MILKY WATER
 ✓ Metals (copper or iron) reacting with sanitizer ✓ Low sanitizer allowing organics to grow ✓ Algae growth (rare but possible) ✓ Heavy organic contamination	 ✓ Iron in fill water ✓ Organic debris (leaves, dirt, mulch) ✓ Old water with high TDS ✓ Metals oxidizing after shock	 ✓ Iron or manganese ✓ Pollen or organic debris ✓ Organic contamination ✓ Metals oxidizing after adding sanitizer	 ✓ Calcium precipitation ✓ High pH ✓ High alkalinity ✓ Dirty or overloaded filters ✓ Old water with excessive TDS

2 MOST COMMON CAUSES

A. METALS IN THE WATER	B. LOW SANITIZER	C. WATER BALANCE ISSUES	D. OLD WATER (HIGH TDS)	E. BIOFILM IN PLUMBING
 • Copper = green • Iron = yellow, orange, or brown • Sources: well water, plumbing corrosion, heater corrosion, low pH	 • Allows contaminants to build up ✓ Causes green or dull water, cloudiness, odors, and high demand ✓ Algae possible if sanitizer stays low too long	 • High pH • High alkalinity ✓ Excess calcium hardness ✓ Causes minerals to fall out of solution (gray, white, or milky water and scale)	 ✓ Contaminants accumulate ✓ More likely to discolor ✓ Resists balancing ✓ Requires more sanitizer	 ✓ Microorganisms build up in plumbing ✓ Returns quickly after shocking ✓ High sanitizer demand ✓ Persistent odors

3 HOW TO FIX GREEN OR DISCOLORED WATER

STEP 1 TEST & BALANCE



Check and adjust:

- ✓ Sanitizer
- ✓ pH
- ✓ Total Alkalinity
- ✓ Calcium Hardness

Balance everything before moving on.

STEP 2 SHOCK THE WATER



Oxidize contaminants using the correct shock for your sanitizer system.

- ✓ Follow product directions
- ✓ Run jets
- ✓ Leave cover open 20–30 min.

STEP 3 CLEAN THE FILTERS



- ✓ Rinse thoroughly
- ✓ Deep-clean with filter cleaner
- ✓ Replace if older than 12–24 months or damaged

STEP 4 TREAT METALS



If metals are causing discoloration:

- ✓ Add a spa-safe metal sequestrant
- ✓ Continue filtering
- ✓ Use a hose pre-filter on future fills

Shocking often makes metals more visible.

STEP 5 IF ALGAE IS PRESENT



Although uncommon, algae can occur.

- ✓ Raise sanitizer to shock level
- ✓ Brush all surfaces
- ✓ Run filtration 8–12 hours
- ✓ Clean filters again

STEP 6 STILL DISCOLORED AFTER 24–48 HOURS?



Possible causes:

- ✓ High TDS
- ✓ Heavy metal contamination
- ✓ Biofilm
- ✓ End of water life cycle

Best solution: Purge plumbing, drain, clean shell & filter bay, refill, and rebalance.

AFTER REFILLING

- ✓ Test and balance all water parameters
- ✓ Add start-up chemicals as recommended
- ✓ Shock the water
- ✓ Clean or rinse filters
- ✓ Run jets with cover open 20–30 minutes
- ✓ Enjoy clear, healthy water!



4 HOW TO PREVENT GREEN OR DISCOLORED WATER

A. CONTROL METALS	B. MAINTAIN SANITIZER	C. KEEP WATER BALANCED	D. MAINTAIN FILTERS	E. REPLACE WATER ON SCHEDULE
 ✓ Use a hose pre-filter when filling ✓ Use metal sequestrant if your water has metals ✓ Keep pH in range to prevent corrosion	 ✓ Keep chlorine or bromine in the proper range ✓ Test regularly ✓ Shock weekly ✓ Shock after heavy use	 Recommended ranges for most hot tubs: • pH: 7.2 – 7.8 • Total Alkalinity: 80 – 120 ppm • Calcium Hardness: 150 – 250 ppm (Follow your spa manufacturer's recommendation.)	 ✓ Rinse every 1–2 weeks ✓ Deep-clean monthly ✓ Replace every 12–24 months (when needed)	 ✓ Drain every 3–4 months ✓ Drain sooner with heavy use ✓ Purge plumbing before each drain Old water discolors more easily and is harder to maintain.

QUICK REFERENCE

Ideal Water Ranges (For Most Chlorine Hot Tubs)

-  pH: 7.2 – 7.8
-  Total Alkalinity: 80 – 120 ppm
-  Calcium Hardness: 150 – 250 ppm

* Always follow your spa manufacturer's recommendation.

KEY TAKEAWAY



Most green or discolored water is caused by metals, poor water balance, inadequate sanitizer, dirty filters, or aging water — not algae. Test, balance, identify the cause, and treat. If problems continue, a complete purge, drain, refill, and rebalance is the most effective solution.

 **NOTE:** Always follow product instructions and test your water regularly. | When in doubt, consult a hot tub professional.