

THE HOT TUB REPORT

CYA (CYANURIC ACID) IN HOT TUBS: TROUBLESHOOTING FLOWCHART

KEEP CYA LOW, KEEP CHLORINE STRONG

CYA protects chlorine from sunlight — but in hot tubs it usually causes more problems. Use this guide if chlorine feels weak, sanitizer demand is high, or water is hard to maintain.

IDEAL CYA LEVEL

0–30 ppm
(as low as practical)



1 WHAT IS CYA?

Cyanuric Acid (CYA), also called stabilizer or conditioner, protects chlorine from UV sunlight.

Hot tubs need much less CYA because they are:

- ✓ Usually covered when not in use
- ✓ Small volumes of water
- ✓ Drained and refilled regularly
- ✓ Heated, which increases sanitizer demand

2 WHY HIGH CYA CAUSES PROBLEMS

As CYA increases, it binds with free chlorine and greatly reduces its sanitizing effectiveness.

- ✓ Slower bacteria and algae kill times
- ✓ More chlorine required to sanitize
- ✓ Water becomes harder to maintain
- ✓ Shock treatments become less effective

CHECK ANY THAT APPLY:

- ✓ Spa stays covered most of the time
- ✓ Dichlor is your primary sanitizer
- ✓ Chlorine demand continues increasing
- ✓ Water is becoming difficult to keep clear
- ✓ Water has been in the spa for several months

3 SIGNS YOUR CYA MAY BE TOO HIGH

SANITIZER PROBLEMS • Free chlorine disappears quickly • Water never seems fully sanitized • Large chlorine doses produce little improvement • Chlorine demand keeps increasing	WATER QUALITY PROBLEMS • Cloudy water • Persistent foam • Musty or stale odor • Dull-looking water • Water feels "old"
WATER BALANCE PROBLEMS • Water becomes difficult to maintain • Shock treatments have limited effect • Water quality declines despite balanced pH and alkalinity	USAGE CLUES • Dichlor used for weeks or months • Dichlor used for routine shocking • Water older than 3–4 months • Maintenance history unknown

★ **Important:** High CYA does not directly cause pH or alkalinity swings, but it can make poor sanitizer performance look like a chemistry problem.

4 HOW CYA GETS TOO HIGH

CYA enters the water almost entirely through stabilized chlorine products, especially:

- ✓ Dichlor granular chlorine
- ✓ Trichlor tablets (rarely used and not recommended)

Every dose of dichlor adds:

FREE CHLORINE + CYA

- ✓ Dichlor is used as the primary sanitizer
- ✓ Stabilized chlorine products are used regularly
- ✓ Water has not been replaced recently

5 HOW TO FIX HIGH CYA

STEP 1: DRAIN Drain the hot tub. ✓ Drain the hot tub.	STEP 2: REFILL Refill with fresh water. ✓ Refill with fresh water.	STEP 3: REBALANCE Rebalance water chemistry. ✓ Rebalance water chemistry.	STEP 4: NEW ROUTINE Establish a lower-CYA sanitation routine. ✓ Establish a lower-CYA sanitation routine.	STEP 5: MAINTAIN Maintain good habits to keep CYA low. ✓ Maintain good habits.
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AFTER REFILLING

- ✓ Use dichlor as needed (if appropriate for your sanitation system)
- ✓ Once CYA reaches 20–30 ppm, switch to an unstabilized chlorine (liquid chlorine / sodium hypochlorite) or drain and refill the hot tub
- ✓ Use a non-chlorine oxidizer (MPS) as needed for supplemental oxidation
- ✓ Follow the recommended drain interval

6 HOW TO PREVENT HIGH CYA

Test CYA periodically.	Switch to an unstabilized chlorine sanitizer.	Avoid using dichlor as your primary shock product. Use a non-chlorine oxidizer (MPS).	Drain and refill every 3–4 months (or sooner with heavy use).	Purge plumbing at each drain and refill.
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QUICK REFERENCE

Ideal CYA: 0–30 ppm

If CYA Is Too High:

- ✓ Chlorine becomes less effective
- ✓ More sanitizer is required
- ✓ Water becomes increasingly difficult to maintain
- ✓ Draining and refilling is the most effective solution

KEY TAKEAWAY

CYA is beneficial in small amounts because it moderates chlorine loss from sunlight, but excess CYA reduces chlorine's sanitizing power. In hot tubs, keeping CYA between 0 and 30 ppm and switching away from dichlor once that level is reached helps maintain clearer water, lower sanitizer demand, and more reliable water chemistry.

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