

CAUSES OF HOT TUB FOAM

What's Behind the Bubbles

Learn why foam forms, how to remove it, and which simple habits keep your spa water clear and inviting.

INSIDE THIS GUIDE

- The real ingredients behind persistent foam
- Water-balance targets that reduce problems
- Everyday habits that limit contamination
- A step-by-step foam recovery plan
- When to use defoamer, drain, or purge



FOAM FUNDAMENTALS

What's Actually Behind the Bubbles?

Jets create bubbles every time air and water mix. Persistent foam appears when contaminants act like surfactants, helping those bubbles hold their shape instead of popping quickly.

THE FOAM FORMULA



CONTAMINANTS
soap, oil, cosmetics

+



AIR + AGITATION
jets and water features

=



STABLE FOAM
bubbles that linger

The Most Common Sources



PEOPLE

Lotions, deodorant, makeup, hair products, body oils, and perspiration.



FABRIC

Laundry detergent and fabric softener left in swimsuits.



WATER

Aging water with accumulated organics and total dissolved solids.



SYSTEM

Dirty filters, weak sanitation, or biofilm inside plumbing.



DOES LOW ALKALINITY CAUSE FOAM?

Usually not by itself. Low alkalinity allows pH to swing, while low calcium hardness can make water feel softer and easier to foam. Both can make an existing contamination problem worse, but soaps and organics are usually the main fuel.

PHASE ONE

Start Clean and Balanced

Foam prevention begins at the fill. Learn your source water, remove avoidable contaminants, and balance the spa before regular use.

Know Your Fill Water

- Test and record the source-water baseline.
- Use a hose pre-filter when minerals or impurities are a concern.
- For a new wet-tested spa, follow the dealer's startup plan; an early drain may help if residue is present.

Build a Simple Water Log

- Record the fill date and source readings.
- Note every chemical dose and the retest result.
- Track bather load, foam events, and filter cleaning.
- Use the record to spot repeat patterns.

Balance Targets for Most Traditional Spas

MEASUREMENT	TYPICAL TARGET	WHY IT MATTERS
Total Alkalinity	80-120 ppm	Helps stabilize pH
pH	7.2-7.8	Supports comfort and sanitizer performance
Calcium Hardness	150-250 ppm	Helps avoid overly soft or scaling water
Sanitizer	Follow your system	Controls microorganisms and oxidizable waste

ADD CHEMICALS SAFELY

Follow the product label and spa manufacturer's directions. Add one product at a time with circulation running and the cover open when directed. Never mix chemicals together, and never add product to a filter well or skimmer unless the instructions specifically require it.

Saltwater spas may use a much lower calcium target. Always use the range specified for your exact system.

PHASE TWO

Prevent Foam Week by Week

Most foam problems are easier to prevent than to remove. Consistent chemistry, clean filtration, and a few small bather habits keep contaminant levels under control.

Your Regular Routine

WEEKLY

Test water; restore balance and sanitizer. Rinse the filter when debris is present.

AFTER HEAVY USE

Test sanitizer and oxidize according to your system and product label.

EACH WATER CHANGE

Deep-clean the filter and inspect the cartridge for damage.

EVERY 3-4 MONTHS

Drain and refill as a common starting point, adjusted for use and manufacturer guidance.

Everyday Bather Habits

- Shower off lotions, cosmetics, and hair products before soaking.
- Keep one hot tub-only swimsuit and rinse it without detergent when possible.
- Ask guests to avoid freshly applied skin or hair products.
- Keep drinks, snacks, and household cleaners away from the water.
- Use scum absorbers as support - never as a replacement for filtration and chemistry.

A Quick Source Finder



FOAM AFTER GUESTS

High bather load, lotions, cosmetics, or detergent residue.



FOAM RETURNS QUICKLY

Old water, loaded filters, recurring organic buildup, or plumbing contamination.



FOAM WITH LOW FLOW

A dirty or restricted filter may be reducing effective circulation.



FOAM AFTER ADDING PRODUCT

Overdosing, incomplete mixing, or cleaner residue on the filter.

PHASE THREE

What to Do When Foam Attacks

Work from removal to diagnosis. The goal is not only to collapse today's bubbles, but to remove the contaminants that let them keep coming back.

1

Remove visible foam

Use a skimmer or wet/dry vacuum. This physically removes some of the concentrated contaminants.

2

Rinse the filter

Clean between every pleat. Deep-clean if the cartridge feels greasy or flow does not recover.

3

Test before dosing

Check pH, alkalinity, hardness, and sanitizer so you treat the actual problem.

4

Restore sanitation

If sanitizer is low, bring it back to the correct range using your system's instructions.

5

Oxidize if appropriate

Use chlorine shock or non-chlorine shock only as compatible with your routine and label. Never mix products.

6

Reassess the water

If foam returns, consider enzymes, a partial water change, or a full drain and refill.

WHERE DEFOAMER FITS

Defoamer can collapse bubbles quickly when you need short-term relief, but it does not remove the contamination. Use it sparingly and exactly as labeled. If foam returns, correct the chemistry, filtration, or water-age issue instead of adding more defoamer.

QUICK REFERENCE

Know When to Drain, Purge, or Wait

A few brief bubbles that disappear when the jets stop can be normal. Thick foam that piles up, spreads across the surface, or returns repeatedly deserves attention.

Consider a Water Change When

- The water is about 3-4 months old or has carried unusually heavy use.
- Foam returns after filters, chemistry, and oxidation are corrected.
- Water feels dull, is difficult to balance, or has high dissolved-solids buildup.
- A partial water change provides only short-lived improvement.

Consider a Plumbing Purge When

- Foam or odor returns soon after a fresh fill.
- The spa sat unused or sanitation was lost for an extended period.
- You see persistent flakes, slime, or residue from plumbing lines.
- The purge product and your spa manufacturer support the procedure.

Foam-Prevention Checklist

- | | |
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| ☐ Test chemistry every week | ☐ Shower before soaking |
| ☐ Maintain the correct sanitizer level | ☐ Use a detergent-free spa swimsuit |
| ☐ Rinse filters as needed | ☐ Track fill and maintenance dates |
| ☐ Deep-clean filters at water changes | ☐ Drain before water becomes difficult |

THE FINAL TAKEAWAY

Most persistent foam is a contamination problem made visible by the jets. Remove the source, restore the water, and keep a simple routine - clear water usually follows.