

## **Algae Prevention & Treatment:**

### **Prevention:**

Prevention of any type of algae problem is preferred over treatment. Follow these steps to help prevent algae:

1. Physically brush & clean ALL Pool surfaces weekly. This includes ladder steps (especially underneath each step) & rails
2. Expose ALL pool surfaces to as much sunlight as possible (sunlight & UV are natural oxidizers)
3. Remove the lid from the skimmer to allow sunlight into the basket for several hours each day  
\*\* Owners of INGROUND POOLS MUST USE EXTREME CAUTION in doing this in order to avoid a person falling into or otherwise injuring themselves due to an open skimmer.

4. Regularly add oxidizing chemicals into the skimmer to purge & clean the filtration lines of any bio-film. Be sure to temporarily remove any other chemicals from the skimmer before adding any oxidizer.

5. When adding make-up water from the garden hose, allow the water to run for 2 to 3 minutes before putting the hose into the pool.

6. Regularly clean pool toys & floats (use Stow Away).

7. Regularly clean pool solar blanket (use Stow Away).

8. Chemically clean pool filter every 4 to 6 weeks (use Strip Kwik, Klean It or SoftSwim® Filter Cleaner).

9. Add regular Maintenance doses of Shock & Algaecide every 2 to 3 weeks as prescribed.

10. Use Optimizer Plus® as a preventative measure

11. Run the filter a minimum of 12 hours daily to prevent "dead spots" in the pool.

12. Remember to clean & rinse the brushes, hoses & vacuums that you use to clean the pool. These can cause the pool to be re-contaminated.

13. Leave as much of your pool equipment exposed to the sun.

14. Keep the water balanced at all times. Recheck after heavy usage or rain or large "top-offs" of new water. Water balance refers to Free Available Sanitizer level, pH, Total Alkalinity, and Calcium Hardness.

### **Treatment:**

Treatment of algae MUST BE QUICK & COMPLETE! DON'T SKIMP!

1. Clean all pool & affected surfaces as prescribed above.
2. Physically clean & remove all visible algae.
3. Add an initial dosage of algaecide to the pool\*.
4. "Shock" the pool with a triple or quadruple dose\*.
5. Run the filter 24 hours daily until water is clear & chlorine, bromine or peroxide (biguanide - such as Soft Swim or Baquacil - sanitizer) levels are maintained at a "higher" level\*.
6. Chemically clean the filter.
7. Bring in a fresh water sample about 4 days later for a retest & evaluation.
8. Maintain Optimizer Plus® levels at a level of 40 ppm (chlorine, bromine & ionizer treated pools) to 80 ppm (biguanide).
9. Products such as Natural Chemistry Pool Perfect (a natural enzyme), Pool Perfect Plus PhosFree (enzyme plus phosphate remover) or AquaFinesse (removes bio-film build up on pool surfaces) treat many of the root causes that lead or contribute to algae blooms.
10. Maintain good water balance of pH, Total Alkalinity & Calcium Hardness.

\*Follow the instructions given by your pool care specialist EXPLICITLY. Failure to do so could result in harm to you and/or your pool & its components.

# **Algae in Swimming Pools. What they are. How to treat it.**

**Important information for all swimming pool owners who want to treat this common pool water problem.**



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**Algae is a common problem in swimming pools.** What is it & how is it successfully prevented and treated. First of all, algae is a single-celled plant form. Some are aquatic (live in water), some are not. Algae utilizes the process of photosynthesis to manufacture its own food. Algae comes in very wide variety of colors and forms making it adaptable to almost any condition. Although some forms are virulent, most are harmless and pose no more than a nuisance to most pool owners. Due to algae's microscopic size, it takes literally millions of these plants to accumulate to be noticed by the naked eye! By that time it may be too late and very costly to correct. Prevention of algae blooms is the best solution.

**The most common form of algae in swimming pools is "green" algae.** Green algae (varies in color from blue-green to yellow-green to dark-green) can be free floating in the water (turning the water a



hazy-green) or can be wall-clinging (patches of green). Wall-clinging varieties range in severity from small patches on pool walls and bottoms to virtually covering the entire pool surface. Green algae has the ability to clog filters and may even cause surface damage if left untreated. Green algae can be treated fairly simply and quickly with a proper, aggressive shocking & algicide.

A relative of regular green algae is "small-celled green algae" (SCGA). The difference is seen in these areas:  
 1. The water remains relatively clear. Many people treat the problem (without proper analysis) as a copper or mineral problem, however the metal chelating agents will show no effect.

2. When treating with chlorine, chlorine seems to "disappear". SCGA is very resistant to even high levels of chlorine.

Other mid-summer types of green algae noticed is "green spots" all around the pool, especially in shady areas. The water is almost always "very clear". The water can have a "stinging" sensation. This is normal green algae, typically brought about by lack of homeowner care; i.e. not following a weekly maintenance routine such as the Once-a-Week 3 Step program combined with very low pH and very low Total Alkalinity.

**"Mustard Algae" is probably the most misdiagnosed form of algae.** Mustard algae is a chlorine-resistant form of green algae (yellow-green to brown in color) typically found in sunbelt areas (Florida, California, Texas). It often resembles dirt or sand on the bottom or sides of a pool. Mustard algae can be very easy to transfer & cross-contaminate another pool (a neighbor or a public pool).



In our market area (Fairfield county CT), the number of TRUE Mustard Algae cases that we treat can be counted on one hand in most seasons.

Mustard Algae has these certain characteristics: It can be brushed away very easily, but returns quickly to almost the exact same location. Although it usually creates a large Chlorine demand (you have trouble maintaining a solid chlorine reading or residual (1.0 - 2.5 ppm), it has been known to survive in high levels of Chlorine (over 6.0 ppm). It is not necessarily "slimy". The pool water tends to be otherwise clear. Mustard algae can also be mistaken for copper or iron staining (if it brushes away, it's algae).

It is extremely important to remove mustard algae growth from pool equipment (including the back of underwater lights & ladders) and bathing suits to avoid cross or recontamination of other pools (mustard algae spores are physically transported to a neighbor's pool). Pool equipment (including toys, floats & rafts) can be left in the pool during product application or cleaned separately with a mild chlorine cleaning solution. Rinse thoroughly if the equipment is used in a SoftSwim® pool. Bathing suits should be washed with detergent as directed on garment label.

Mustard algae will usually create a fairly large chlorine demand, although it can survive in high levels of chlorine.

In SoftSwim or Baquacil treated pools, mustard algae will deplete the SoftSwim Clarifier ("C" or Shock).

**Prevention tip:** ALWAYS launder with bleach bathing suits (check bathing suit care label first), towels & toys that you have used after any vacation.

**"Black Algae"** (actually blue-green algae) forms in cracks and crevices on pool surfaces, especially plaster finishes. We normally find black algae growing in, but not limited to, shady areas of the pool.

Black algae is typically found in concrete (gunite) or plaster finished pools; it is very uncommon to find it in vinyl liner pools. It is known for a having heavy slime layer and "skeletal growths" that make it impervious to normal chlorine levels (1.0 - 2.5 ppm). Black algae can grow "condominium style" providing layers of algae one on top of the other.

Slight cracks in plaster or fiberglass walls are perfect breeding grounds for black algae especially when the pool is not properly maintained (good sanitizer level, weekly shocking, weekly preventive and maintenance algicide additions, as well as good water balance).

As shown in the photograph below, the swimming pool water remains relatively to very clear. However, almost all pool owners notice a high chlorine demand (use much more chlorine than normal). Black Algae can be mistaken for iron, manganese or cobalt staining (if it brushes away, it's algae).

If the treatment is not complete, the "roots" of the Black Algae will support the re-growth in the same



spot. Keep in mind that when the pool is shocked or heavily chlorinated, the "upper levels" of the algae will bleach out but the remainder of the black algae condominium is protected from the chlorine attack and therefore will return within several days.

**Treatment tip # 1:** Both Mustard Algae & Black Algae REQUIRE vigorous brushing with a proper wall brush of the algae affected area **every day** until it is eliminated. Since both of these types of algae have protective layers, those layers must be broken down in order for the chlorine and algicide to thoroughly work.

**Treatment tip # 2:** Avoid using products containing sodium bromide (such as found in products like Yellow Out). Continued use of Sodium bromide products will cause a chlorine treated pool to become a bromine pool. Re-conversion to chlorine is NOT possible without complete draining & refilling.