



Keeping Afloat

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Environmental Health Services

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Recent Items of Concern

WATER QUALITY TESTING

Remember to test and record all results as required. Pool/spa water shall be tested for the following:

1. pH twice daily for pools and three times daily for spas.
2. Disinfectant residuals twice daily for pools and three times daily for spas.
3. Combined chlorine at least twice a week.
4. Total alkalinity at least once a week.
5. Cyanuric acid, when it is used, at least once a week.

Remember, the pool shall be closed for a period equal to at least one hour following the manual addition of chemicals.

Weekly bacteriological samples shall be submitted to a state-approved lab to test for total heterotrophic plate count, and total coliform. Bacteriological test results must be submitted in writing to the Health Department within seven days of sample collection.

All testing records shall be maintained for at least one year and shall be available for examination by the Health officer.

PLAN REVIEWS

There is often confusion regarding when a pool or spa plan review is required.

A plan review **IS** required for any new construction or complete remodel.

A plan review **IS NOT** required when solely replacing like for like repair purposes.

A plan review **MAYBE** required when replacing recirculation equipment.

As always though, when in doubt with this or any other matter **PLEASE** feel free to contact our office for assistance at (574)875-3391. Environmentalists maintain office hours from 8 a.m. to 10 a.m., Monday through Friday.

PROTECTED BARRIERS

A major safety issue that is often ignored is the lack of secure protected barriers to public pools and spas.

The Indiana State Department of Health Swimming Pool Rule 410 IAC 6-2.1 and the Elkhart County Swimming Pool Ordinance 06-167 require an enclosure that is six feet in height around the pool or spa that is provided with a self-closing and self-latching entrance that can be locked.

It is imperative that these requirements be met for the safety and protection of the public and especially for children.

Please add inspection and maintenance of your enclosure and entry to the list of routine care for your facility.

HELPFUL LINKS

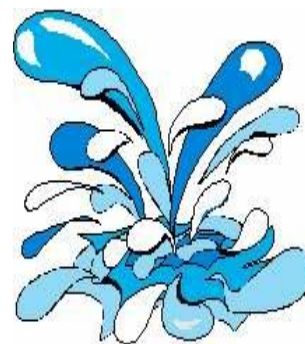
Some helpful web sites for information and educational materials:

The Centers for Disease Control
www.cdc.gov/healthyswimming

The National Swimming Pool Foundation
www.nspf.org

Inside this issue:

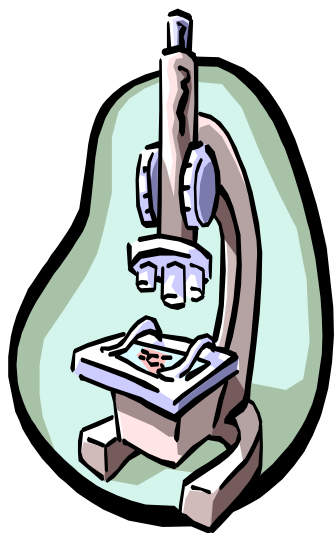
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- **Swimming pool microbiology must be taken seriously.**
- **Make sure to test and record pool biological and chemical levels regularly as required.**

Swimming Pool Trouble Shooting Guide

Information Obtained From the Indiana State Department of Health



Most swimming pool water problems are the result of one or more of the following:

- (1) No free available chlorine.
- (2) Poor water circulation.
- (3) Not using test kits or not reading them correctly.
- (4) Lack of proper pool maintenance, which includes periodic super-chlorination and fresh water replacement.

CHECK THE SYMPTOMS LISTED BELOW, THEN APPLY THE SUGGESTED REMEDY...

PROBLEM—

Cloudy water: Water appears murky or turbid due to suspended matter

Causes:

- Algae
- Too high a hardness level
- Too frequent backwashing
- Inefficient filter
- Plugged or channeled filter
- Precipitating calcium compounds
- Improper pH
- Improper total alkalinity
- Too high a total dissolved solids content

Remedies:

- (1) Inspect/repair filtration system
- (2) Adjust your pH and total alkalinity to proper levels, as well as the free available chlorine

Maintain a consistent 1.0-1.5 ppm free chlorine level.

PROBLEM—

Algae. Green, cloudy water or dark green or black spots on pool walls.

Algae are not only unsightly but it makes surfaces slippery. Algae can clog pumps, filters, and may harbor bacteria.

Causes:

- Insufficient free-chlorine residual
- Not following routine pool maintenance, including testing and sanitizing.

Remedies:

- (1) Super-chlorinate
- (2) Check pH and adjust, if necessary, to comfort zone: pH 7.2-7.8
- (3) Brush spots with pool brush to remove clinging algae
- (4) Maintain a minimum chlorine residual of 1.0-1.5 ppm

PROBLEM—

Eye burns and chlorine-like odors.

Causes:

- Improper pH
- Combined chlorine

Remedies:

- (1) Super-chlorinate
- (2) Adjust pH to proper 7.2-7.8 range
- (3) Maintain proper levels of pH, total alkalinity, and free chlorine residual

PROBLEM—

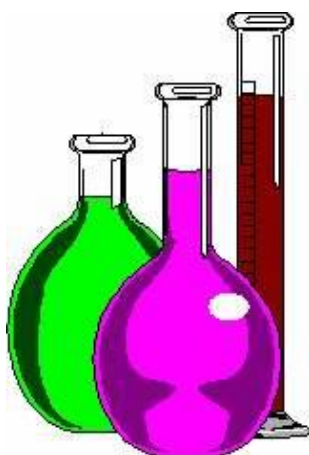
Stains. Usually brownish stains on pool surface.

Causes:

- Corrosion of pool's metal hardware due to low pH
- High pH
- High alkalinity
- Dissolved metals

Remedies:

- (1) Adjust pH to 7.2-7.8
- (2) Adjust total alkalinity
- (3) Check with your pool chemical dealer about using chelating materials or acid washing your pool



**PROBLEM—**

Clogged Filter. Water flow through your filter is impeded, resulting in increase in circulatory system pressure.

Causes:

- Algae
- Calcification
- Hair
- Suntan lotion
- Improper pH
- Improper total alkalinity

Remedies:

- (1) Check the guide-lines for your pool, including proper pH and total alkalinity, adjust them to proper levels
- (2) Maintain proper levels for pH and total alkalinity
- (3) Inspect/repair filtration system

PROBLEM—

Foaming. When your pool water looks like soap bubbles.

Causes:

- Too high a concentration of algae-cide
- Organic debris in water

Remedies:

- (1) Read product labels carefully, and obey dosage instructions
 - (2) Discard water as necessary
 - (3) Super-chlorinate
 - (4) Adjust pH, total alkalinity, and free chlorine residual to proper ranges
- Maintain those proper levels

PROBLEM—

Scale. White, gray, or brownish deposits on pool surface or heater coils.

Causes:

- Calcium carbonate deposits caused by excessively hard water
- Accumulation of dissolved solids

Remedies:

- (1) Adjust pH to 7.2-7.8
- (2) Adjust total alkalinity
- (3) Check with your pool chemical dealer about using chelating materials or acid washing your pool

PROBLEM—

Colored water (1). Water in a newly-filled pool turns blue, brown, or black when first treated chemically.

Causes:

- Chlorine turns unseen copper, iron, or manganese in the water into unwanted and highly-visible compounds
- Water velocity in circulatory system too high

Remedies:

- (1) Adjust pH to 7.8
- (2) Run filter continuously and backwash as required
- (3) Vacuum settled material to waste
- (4) Check velocity of water to make sure copper is not leached out of lines
- (5) Ask your authorized pool dealer about use of alum for faster clean-up results

PROBLEM—

Colored water (2). Water in already-filled pool turns various colors.

Causes:

- Leaves, other organic debris in water
- Algae

Remedies:

- (1) Clean pool of leaves or other debris
- (2) Super-chlorinate
- (3) Adjust the free chlorine residual, the pH and total alkalinity to proper levels
- (4) Maintain those levels

**SPECIAL POINTS OF INTEREST:**

- This newsletter is prepared annually by staff Environmentalist III, Gabriel Cameron.
- Should you have any questions or concerns, please do not hesitate to contact our office.

*Note: These are merely recommendations. If unsure of any problem, please consult a professional.



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"Dedicated to a Healthful Life and
Environment"

We're on the web!
www.elkhartcountyhealth.org

Get Ready For Spring!

So, you're ready to open up that swimming pool for yet another great season? Well, hold on a minute! Before you can declare your pool open, a few requirements will have to be met:

1. Remember to check drain cover grates first thing after removing your pool cover. Cracked, broken, or missing drain covers present hair/body entrapment and evisceration/disembowelment hazards.
2. A license application must be completed and submitted to the Environmental Division of the Health Department, along with the corresponding fee.
3. All pools must have a separate person in charge (PIC) registered with our office and on site to maintain your pool. If your PIC is no longer employed at your facility, a new one must arrange to take and pass our general knowledge test.
4. Documentation of passing pool water bacteriological test results must be submitted. Water testing must commence at least one week prior to your anticipated opening date.
5. Finally, passage of a prescheduled opening inspection is required. Making sure all violations are corrected and verified as being corrected by an Environmentalist. Call 875-3391 to schedule an inspection.

