

LOST TO ESD...



**DON'T SWIM
AROUND
ELECTRICITY!**

For More Information
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**ELECTRIC SHOCK
DROWNING
A SILENT KILLER**

What You
MUST Know
to Protect
Your Family



www.ElectricShockDrowning.org

WARNING

**NO SWIMMING
AROUND
ELECTRICITY!**

Electric Shock Drowning (ESD)

Danger lurks closer to home than you think...

Never swim around docks and boats powered with electricity!!

**Electricity Is a Swift Killer
Invisible - Odorless - Silent**

Consider these simple questions:

- Would you plug in and use an electrical appliance while taking a bath?
- Do you realize that a boat with an electrical cord is a "plugged-in" appliance? And the water around the boat is like the bathtub?
- Can you see any inherent dangers in running electricity to docks exposed to the harsh marine environment?
- How well do water and electricity mix? Not very well, as we all know.

ELECTRIC SHOCK DROWNING (ESD) Q & A

- 1. What is ESD?** It's a drowning resulting from paralysis caused by electrical currents in the water. If the electric current is high enough, electrocution occurs.
- 2. What causes ESD?** Electricity leaking into water around boats and docks using electrical power. These leaks come from faulty electrical equipment and wiring, and improper grounding. Beware, it may come from a neighbor's dock.
- 3. How much electricity causes injury or death?** As little as 10 milliamps (1/50th the current used by a 60 watt light bulb) can cause paralysis/drowning. Sixty milliamps in the body can cause heart failure.
- 4. Is ESD a common problem?** Hundreds of injuries and deaths have been documented (could be many, many more). It is only by witness reports or investigation that these events can be attributed to ESD.
- 5. Why is freshwater more dangerous?** In freshwater the human body is much more conductive than the water itself. So, more current flows through the body in freshwater than in saltwater.
- 6. Why are we swimming around docks and boats powered with electricity?** It's our culture. We have always used lakes, rivers, and ponds for swimming. Then we added electricity to the docks for lights, boats, appliances. But swimming persists in light of the danger electricity presents.
- 7. If you feel a tingle? - Stop!** Turn around. Go back to where there was no tingle. Swim away! Warn others. Get out and turn off power any way you can.
- 8. If you witness an ESD?** Turn power off, throw a life ring, try to move the person away with a nonconductive pole or object. Don't pull the person toward to the dock. **DO NOT JUMP IN TO HELP** (you will become a casualty). Call 911!
- 9. How can ESD be prevented?**
 - a. Don't swim around docks and boats using electricity!! Consider the ENTIRE dock dangerous.**
 - Find a swimming location at least 50 yds from any electrically-powered docks.
 - Post signs around your dock to notify others of the potential dangers.
Example: "NO SWIMMING, DANGER OF ELECTROCUTION"
 - b. Follow current codes and standards.** NFPA 70 (NEC) and NFPA 303 (Marinas and Boatyards) address electrical standards and inspection requirements for dock and marina safety (www.nfpa.org). The American Boat and Yacht Council (ABYC) covers electrical standards for boats (www.abycinc.org).
 - Codes and standards protect when water is entered accidentally.
 - Install ground fault protection on all electrical systems used by docks and boats.
 - Inspect all dock and boat electrical systems annually and after periods of violent weather.
 - Only allow electrical work and inspection by licensed or otherwise qualified personnel.
 - c. Spread the word about this danger in your local community.** Distribute literature like this brochure. Visit the Electric Shock Drowning Prevention Association website (www.electricshockdrowning.org) for more information and resources.