

# **WATER SAFETY**



All rivers, canals, sandpits, and deep cold water lakes are dangerous for swimming or bathing.

### **The major factors in drowning are:**

- \* Swimming in dangerous areas.
- \* Drinking alcohol and swimming.
- \* Swimming in cold water.
- \* Swimmers exceeding their capabilities.

There have been tragic drownings of small children in the past years. Parents must remember to keep an eye on their children and never let small children out of their reach when in or near bodies of

water. Never depend on the ability of lifeguards to watch children for you!

### **DANGEROUS SWIMMING AREAS**

Swimming in unauthorized or off-limits areas is a killer. Many drownings in the military were by personnel using unauthorized or off limit areas. Each unit should have a list of authorized and off limit local swimming areas. This list is available through the local Garrison or Base Support Safety Offices.

Commercial swimming pools and those public-swimming areas with a professional lifeguard on duty are recommended.

No matter where you swim, check out the water's depth before you dive in. Each year thousands of people are injured when they dive in to shallow water or hit underwater objects when diving.

### **ALCOHOL AND SWIMMING**

A significant portion of accidental drownings in the military have been alcohol-

related. Just like drinking and driving, drinking and swimming can be a deadly combination. Alcohol impairs the ability to make decisions. It is a depressant and suppresses the person's ability to be objective, by reducing their inhibitions. Without the influence of your inhibitors, judgment calls are often made without weighing all the facts. When under the influence of alcohol, or other drugs, people often feel they can do more than they are physically capable of. As a result, people try to swim too far, too fast, and too long. They also take chances and dive into waters of unknown depths or swim in areas that are dangerous due to under currents or fast moving bodies of water.

When you drink alcoholic beverages the blood is pumped to the skin in an attempt to help detoxify the alcohol. With more blood being sent to the skin areas less blood flow is provided to the internal organs. Less blood means less heat, oxygen, and nourishment to organs. This can result in

muscle fatigue, cramps, and hypothermia--all of which can cause drowning.



### **COLD WATER CAN BE A KILLER!**

Never swim in deep water lakes or before the water temperature has had a chance to warm-up. Water temperature, even on the hottest days, can be very cold, below 70 degrees F.

#### **This can cause any of the following:**

- \* **Hyperventilation reflex:** -- Sudden exposure of the upper chest to cold water will trigger uncontrolled rapid breathing and gasping and will increase blood pressure, pulse rate, and metabolic rate. If the head is under water when this reflex is triggered, the victim may not be able to hold their breath long enough to surface.
- \* **Fatigue:** -- Even strong swimmers tire rapidly in cold water and, within a few minutes, are unable to help themselves. This phenomenon is not fully understood, but it is known that as the water cools it

becomes more dense. This requires additional effort to swim. In addition, to conserve vital body heat, the blood flow to the extremities and peripheral tissues is drastically reduced. It has been speculated that the effort to overcome the body's defenses and supply the muscles with the blood required for their operation contributes to fatigue.

\* **Pain:** -- The skin is the largest of the body's sensory preceptors. Sudden immersion can be intensely painful and may cause shock and possible heart attack.

\* **Calorie Labyrinthitis:** -- The typical victim falls or dives into cold water and just disappears. This may be caused by sudden injection of cold water into the ear canals, which can cause vertigo. The victim becomes disoriented and cannot tell which way is up. Instead of struggling towards the surface, they may swim down until they can no longer hold their breath.

\* **Mammalian Diving Reflex:** -- The opposite of hyperventilation reflex, this reflex makes it possible for otter, seals, whales, and other warm-blooded animals to spend long periods under water. It reduces blood pressure, heart rate, metabolic rate, blood flow to extremities and the

peripheral tissues, and respiration. Water conducts heat more than 25 times faster than air. It is estimated that, when immersed in water 70 degrees F, or lower, the average person will not be able to produce enough heat to offset the heat lost due to the water. The colder the water the faster the heat loss. Therefore, depending on the water temperature and other conditions, acute or rapid-onset hypothermia may develop in as little as 10 minutes. However, it could take several hours. Swimming ability, especially endurance, is greatly reduced, even to zero, because of cold water immersion. Strong swimming ability is no defense against cold water. The expert is as susceptible as a novice.

**Hypothermia:** -- The process of reducing the human body temperature below 98.6 F. Hypothermia is not always easy to spot. Generally, one of the first symptoms is violent shivering, which is an attempt by the body to create heat by exercise. Mental disorientation is another symptom. Muscle rigidity and cramps develop because the body restricts blood flow to the extremities to conserve heat. Alcohol or drugs, physical exercise, a low body-fat ratio, or a combination of these factors

will hasten the loss of body heat.

### **EXCEEDING CAPABILITIES**

Many swimmers think they can swim faster, longer, and better than they really can.

Two soldiers drowned when they tried to swim across a lake to avoid paying an entrance fee.

One soldier jumped from a boat while on a river cruise. He wanted to show his buddies that he was a terrific swimmer. His body still has not been found.

Even good swimmers must be careful not to overextend their capabilities. Due to cold, fatigue, cramps, alcohol or drugs, or water currents, swimmers can easily over-extend themselves. Be smart and do not try to show off or over do your abilities. Remember that most drownings are people who are good swimmers. Don't let your pride or friends goad you into killing yourself. If you are a weak swimmer don't be embarrassed to admit it. You are not alone, many of us are weak or just average swimmers.

### **SUMMARY**

#### **Remember:**

1. Do swim with a friend. The buddy system is smart.
2. Do swim only in authorized swimming areas.
3. Do wait an hour or more before swimming after eating.
4. Do stay within your capabilities. If you can't swim, stay out of deep water.
5. Do stay in shallow water if you are not a good swimmer.
6. Do avoid the use of alcohol and drugs.
7. Do checkout the water depth before you dive in.
8. Do swim in lighted pools or swimming areas during the hours of darkness.
9. Do avoid swimming in areas where currents could cause problems.

10. Do avoid cold water lakes, especially during the early swimming season.

11. Do keep a close eye on small children and keep them close enough to reach in the event of an emergency!

**DON'T TAKE UNNECESSARY CHANCES! FOLLOW SAFETY AND COMMON SENSE RULES!**



**DON'T LET ACCIDENTS TAKE A BITE OUT OF YOUR SUMMER FUN!**