

Water Detecting Safety:

Sorry, the following is quite a long read but Joe C. (author) & I felt this was important to get out.

Disclaimer: "This information was compiled from information found available on the internet and is only offered as basic treatise on the subject. It is strongly suggested that any person considering the hobby of water detecting make themselves very familiar with the requirements of the hobby, the equipment, their surroundings, and the physical and health risks and demands and dangers involved before venturing into the water. Do not take anything for granted. You are responsible for your own safety. Talk to someone who is involved in the hobby that you respect and whose judgment you trust. Solicit their advice. Never go without a partner. Wear a certified personal flotation device. Never become over confident or complacent. If you try to anticipate something happening, you stand a better chance of avoiding the outcome."

Purpose of Information:

1. Provide information that will assist the water detectorists in maintaining safety in the water
 2. Alert the detectorists to health situations that may occur while in the water
- -Before entering the water, assess the situation. Take time to see what's happening around you before you wade right in.
 - -Carry a "**spare car key**", "**whistle**" and "**laminated ID** (with medical history)" that is easily accessible to you in case of emergency. The whistle (if able to blow) can be used to alert others that you are in trouble. It can be used to alert on-coming boaters that you are in their path avoiding being hit. The ID can be used by emergency personal in the event you are unable to communicate with them.
 - -Carry a wading staff. A sturdy stick, wading staff or ski pole helps you maintain at least two points of contact with the lake bed. Use your detector or long handled scoop in the same way.
 - -Wear an approved **inflatable life vest (PFD)**, life jacket or flotation coat anytime while wading in a lake, river or stream. Check into a CO2 cartridge type vest. See link. Shop around. You can find deals on quality devices: <http://www.go2marine.com/product.do?no=94637F>
 - -Recognize your limits. Don't exceed the limits of your strength, agility and endurance. A tired wader in the water amid a situation like a slippery bottom or slick rocks is inviting tragedy.
 - -If water overcomes you, get rid of equipment. Granted, you may have an investment of up to \$1500+ in detecting equipment, but it means nothing if you don't live to use it again. Jettisoning gear with a free hand means less weight which could save your life.
 - -If you're swept away in current, float on your back, draw your knees up to your chest, and point your feet downstream. This position protects your head from rocks and other obstructions. Use your arms to steer into slow or shallow water, remain calm, and keep your head above water. In deep water, swim with the current and diagonally across it. Avoid using all your strength to fight the current.
 - -Be careful where you put your feet to avoid foot entrapment.

- -Authorities say never wade over mid-thigh.
- -Observe marked swimming areas and buoys and do not venture past these areas.
- -Watch for signs of current, eddies, vortex's that indicate deeper water and areas to stay away from.
- -Be careful of sandbar areas. If there is a shallow approach on one side, there may be a drop off on the other side.
- -Take your time wading. The treasure will still be there. You may be tempted to cover twice the ground in half the time, but you also greatly increase your risk factor.
- -If possible, have someone on the beach watching you at all times. Drowning occurs rapidly often with little time to call for help.
- -Your feet are an asset that needs to be protected against puncture wounds, sprains, bruising, sand abrasion, cuts, etc. Invest in a good pair of wading boots/shoes. If your feet get damaged, you may fall over into the water unexpectedly thereby increasing the risk of drowning.
- -Be careful of slippery rock or bottom surfaces covered with silt or degraded plant material.
- -Be aware of muck conditions Which can entrap your feet and cause you to fall over without being able to right yourself. Here is a good link on what to do in quicksand conditions including a short video on how to extricate yourself: <http://www.wikihow.com/Get-out-of-Quicksand>
- -Dress properly for the water temperature instead of the air temperature to guard against the effect of hypothermia.
- -If using chest waders, Wear a pair of quality-made chest waders and tighten a cinch belt at the waistline outside the waders to help prevent them from filling with water should a water immersion occur. Water weighs about 8 pounds per gallon and can make walking to the shoreline extremely difficult if waders fill with water.
- -Use a pair of metal crampons or cleats, which fit over the boot portion of waders, to significantly improve traction when wading across slippery rocks and other debris commonly found along water bottoms.
- -Do not wade alone; wade with a partner. Let friends or family members know of your plans.
- -Avoid alcohol consumption before going into the water.
- -Keep available extra clothing, be prepared to handle an emergency situation if it arises.
- -Stay informed of current and forecast weather and water conditions.

Drowning risk situations:

Most drowning occur 90% in freshwater (rivers, lakes and pools) 10% in seawater.

Common conditions and risk factors that may lead to drowning include but are not limited to: (In no particular order)

- Males are more likely to drown than females, especially in the 18-24 age brackets.
- Failing to wear a PFD when in the water.
- Water conditions exceed the swimmer's ability - turbulent or fast water, water out of depth, falling through ice, rip currents, undertows, currents, waves and eddies.
- Entrapment - physically unable to get out of the situation because of a lack of an escape route, snagging or by being hampered by clothing or equipment. Jumping into an unknown area that may have muck or quick sand.
- Impaired judgment and physical incapacitation arising from the use of drugs, principally alcohol.
- Incapacitation arising from the conditions - cold (hypothermia), shock, injury or exhaustion.
- Incapacitation arising from acute illness while swimming - heart attack, seizure or stroke.

People have drowned in as little as 30 mm of water lying face down, in one case in a wheel rut. Children have drowned in baths, buckets and toilets; inebriates or those under the influence of drugs have died in puddles. For a more detailed list of causes see swimming.

Hypothermia and Drowning:

The key hypothermia symptom is an internal body temperature below 95° F (normal is 98.6°F). Normal body temperature of course, is 98.6. Shivering and the sensation of cold can begin when the body temperature lowers to approximately 96.5. Amnesia can begin to set in at approximately 94, unconsciousness at 86 and death at approximately 79 degrees. Cold water robs the body's heat 32 times faster than cold air. If you should fall into the water, all efforts should be given to getting out of the water by the fastest means possible.

Usually, everyone thinks about hypothermia occurring in extremely cold temperatures, but that doesn't have to be the case. It can happen anytime that you are exposed to cool, damp conditions. Older people are more susceptible to hypothermia.

Two things to remember about hypothermia is that...

1. you don't need to be experiencing sub-zero temperatures to encounter hypothermia and ...
2. your judgment will be impaired making you much more likely to experience an accident.

If you, or someone in your group, become hypothermic, take immediate action before it becomes a severe emergency!

Hypothermia symptoms include:

- Uncontrollable shivering (although, at extremely low body temperatures, shivering may stop)
- Weakness and loss of coordination
- Confusion

- Pale and cold skin
- Drowsiness – especially in more severe stages
- Slowed breathing or heart rate

If not treated promptly, lethargy, cardiac arrest, shock, and coma can set in. Hypothermia can even be fatal.

Hypothermia signs that can be observed by others:

- Slowing of pace, drowsiness, fatigue
- Stumbling
- Thickness of Speech
- Amnesia
- Irrationality, poor judgment
- Hallucinations
- Loss of perceptual contact with environment
- Blueness of skin
- Dilation of pupils
- Decreased heart and respiration
- Stupor
- Death

Victims need IMMEDIATE help if the following symptoms are present:

If you observe ANY of these hypothermia symptoms or signs in yourself or anyone in your party, seek immediate help:

- Poor articulation of words
- Disorientation
- Decrease in shivering followed by rigidity of muscles
- Cyanosis (Blueness of Skin)
- Slowness of pulse, irregular or weak pulse

Other health issues that may be a concern while in the water:

Hypoglycemia (Low Blood Sugar) in People Without Diabetes - Symptoms

The symptoms of hypoglycemia may vary from episode to episode because low blood sugar can be mild, moderate, or severe. Increasingly severe symptoms appear as the blood sugar level falls.

In healthy people, fasting blood sugar levels are usually between 70 and 99 mg/dL.

Mild hypoglycemia

Symptoms of mild low blood sugar usually develop when blood sugar falls below 70 mg/dL and may include:

- Nausea.
- Extreme hunger.
- Feeling nervous or jittery.
- Cold, clammy, wet skin and/or excessive sweating not caused by exercise.
- A rapid heartbeat (tachycardia).
- Numbness or tingling of the fingertips or lips.
- Trembling.

Moderate hypoglycemia

If blood sugar continues to fall, the nervous system will be affected. Symptoms usually develop when the blood sugar falls below 55 mg/dL and may include:

- Mood changes, such as irritability, anxiety, restlessness, or anger.
- Confusion, difficulty in thinking, or inability to concentrate.
- Blurred vision, dizziness, or headache.
- Weakness, lack of energy.
- Poor coordination.
- Difficulty walking or talking, such as staggering or slurred speech.
- Fatigue, lethargy, or drowsiness.

Severe hypoglycemia

The symptoms of severe low blood sugar develop when blood sugar falls below 35-40 mg/dL and may include:

- Seizures or convulsions.
- Loss of consciousness, coma.
- Low body temperature (hypothermia).

Prolonged severe hypoglycemia can cause irreversible brain damage and heart problems, especially in people who already have coronary artery disease. If emergency medical treatment is not provided, severe hypoglycemia can be fatal.

Some medicines may mask symptoms of low blood sugar, including beta-blockers, which are often used to treat heart conditions and high blood pressure.

What to think about

Different people may develop symptoms of mild, moderate, or severe hypoglycemia at varying blood sugar levels. Although the blood sugar levels listed above are typical, they may not apply to everyone. If your blood sugar drops suddenly, you may develop symptoms even if your level is in the normal range.

A number of medical conditions can cause symptoms similar to those of hypoglycemia. Your doctor will use blood tests and other measures to make sure another condition isn't causing your symptoms.

Heart Attack Warning Signs:

Some heart attacks are sudden and intense — the "movie heart attack," where no one doubts what's happening. But most heart attacks start slowly, with mild pain or discomfort. Often people affected aren't sure what's wrong and wait too long before getting help. Here are signs that can mean a heart attack is happening:

- Chest discomfort. Most heart attacks involve discomfort in the center of the chest that lasts more than a few minutes, or that goes away and comes back. It can feel like uncomfortable pressure, squeezing, fullness or pain.
- Discomfort in other areas of the upper body. Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach.
- Shortness of breath with or without chest discomfort.
- Other signs may include breaking out in a cold sweat, nausea or lightheadedness

As with men, women's most common heart attack symptom is chest pain or discomfort. But women are somewhat more likely than men to experience some of the other common symptoms, particularly shortness of breath, nausea/vomiting, and back or jaw pain.

Learn the signs, but remember this: Even if you're not sure it's a heart attack, have it checked out (tell a doctor about your symptoms). Minutes matter! Fast action can save lives — maybe your own. Don't wait more than five minutes to call 9-1-1.

Calling 9-1-1 is almost always the fastest way to get lifesaving treatment. Emergency medical services (EMS) staff can begin treatment when they arrive — up to an hour sooner than if someone gets to the hospital by car. EMS staff are also trained to revive someone whose heart has stopped. Patients with chest pain who arrive by ambulance usually receive faster treatment at the hospital, too. It is best to call EMS for rapid transport to the emergency room.

If you can't access the emergency medical services (EMS), have someone drive you to the hospital right away. If you're the one having symptoms, don't drive yourself, unless you have absolutely no other option.

Stroke Warning Signs:

If you or someone with you has one or more of these signs, don't delay!

- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden, severe headache with no known cause

Stroke

Immediately call 9-1-1 or the emergency medical services (EMS) number so an ambulance (ideally with advanced life support) can be sent for you. Also, check the time so you'll know when the first symptoms appeared. It's very important to take immediate action. If given within three hours of the start of symptoms, a clot-busting drug called tissue plasminogen activator (tPA) can reduce long-term disability for the most common type of stroke. tPA is the only FDA-approved medication for the treatment of stroke within three hours of stroke symptom onset.

A TIA, or transient ischemic attack, is a "warning stroke" or "mini-stroke" that produces stroke-like symptoms but no lasting damage. Recognizing and treating TIAs can reduce your risk of a major stroke. The usual TIA symptoms are the same as those of stroke, only temporary. The short duration of these symptoms and lack of permanent brain injury is the main difference between TIA and stroke.

Dehydration and Heat Stroke

The danger of dehydration and heat stroke:

Dehydration and heat stroke are two very common heat-related diseases that can be life-threatening if left untreated.

What is dehydration?

Dehydration can be a serious heat-related disease, as well as being a dangerous side-effect of diarrhea, vomiting and fever. Children and persons over the age of 60 are particularly susceptible to dehydration.

What causes dehydration?

Under normal conditions, we all lose body water daily through sweat, tears, urine and stool. In a healthy person, this water is replaced by drinking fluids and eating foods that contain water. When a person becomes so sick with fever, diarrhea, or vomiting or if an individual is overexposed to the sun, dehydration occurs. This is caused when the body loses water content and essential body salts such as sodium, potassium, calcium bicarbonate and phosphate.

Occasionally, dehydration can be caused by drugs, such as diuretics, which deplete body fluids and electrolytes. Whatever the cause, dehydration should be treated as soon as possible.

What are the symptoms of dehydration?

The following are the most common symptoms of dehydration, although each individual may experience symptoms differently. Symptoms may include:

- thirst
- less-frequent urination
- dry skin
- fatigue
- light-headedness
- dizziness
- confusion
- dry mouth and mucous membranes
- increased heart rate and breathing

In children, additional symptoms may include:

- dry mouth and tongue
- no tears when crying
- no wet diapers for more than 3 hours
- sunken abdomen, eyes or cheeks
- high fever
- listlessness
- irritability
- skin that does not flatten when pinched and released

Treatment for dehydration:

If caught early, dehydration can often be treated at home under a physician's guidance. In children, directions for giving food and fluids will differ according to the cause of the dehydration, so it is important to consult your pediatrician.

In cases of mild dehydration, simple rehydration is recommended by drinking fluids. Many sports drinks on the market effectively restore body fluids, electrolytes, and salt balance.

For moderate dehydration, intravenous fluids may be required, although if caught early enough, simple rehydration may be effective. Cases of serious dehydration should be treated as a medical emergency, and hospitalization, along with intravenous fluids, is necessary. Immediate action should be taken.

How can dehydration be prevented?

Take precautionary measures to avoid the harmful effects of dehydration, including:

- Drink plenty of fluids, especially when working or playing in the sun.
- Make sure you are taking in more fluid than you are losing.
- Try to schedule physical outdoor activities for the cooler parts of the day.
- Drink appropriate sports drinks to help maintain electrolyte balance.
- For infants and young children, solutions like Pedialyte will help maintain electrolyte balance during illness or heat exposure. Do not try to make fluid and salt solutions at home for children.

What is heat stroke?

Heat stroke is the most severe form of heat illness and is a life-threatening emergency. It is the result of long, extreme exposure to the sun, in which a person does not sweat enough to lower body temperature. The elderly, infants, persons who work outdoors and those on certain types of medications are most susceptible to heat stroke. It is a condition that develops rapidly and requires immediate medical treatment.

What causes heat stroke?

Our bodies produce a tremendous amount of internal heat and we normally cool ourselves by sweating and radiating heat through the skin. However, in certain circumstances, such as extreme heat, high humidity or vigorous activity in the hot sun, this cooling system may begin to fail, allowing heat to build up to dangerous levels.

If a person becomes dehydrated and can not sweat enough to cool their body, their internal temperature may rise to dangerously high levels, causing heat stroke.

What are the symptoms of heat stroke?

The following are the most common symptoms of heat stroke, although each individual may experience symptoms differently. Symptoms may include:

- headache
- dizziness
- disorientation, agitation or confusion
- sluggishness or fatigue
- seizure
- hot, dry skin that is flushed but not sweaty
- a high body temperature
- loss of consciousness
- rapid heart beat
- hallucinations

How is heat stroke treated?

It is important for the person to be treated immediately as heat stroke can cause permanent damage or death. There are some immediate first aid measures you can take while waiting for help to arrive.

- Get the person indoors.
- Remove clothing and gently apply cool water to the skin followed by fanning to stimulate sweating.
- Apply ice packs to the groin and armpits.
- Have the person lie down in a cool area with their feet slightly elevated

Intravenous fluids are often necessary to compensate for fluid or electrolyte loss. Bed rest is generally advised and body temperature may fluctuate abnormally for weeks after heat stroke.

How can heat stroke be prevented?

There are precautions that can help protect you against the adverse effects of heat stroke. These include:

- Drink plenty of fluids during outdoor activities, especially on hot days. Water and sports drinks are the drinks of choice; avoid tea, coffee, soda and alcohol as these can lead to dehydration.
- Wear lightweight, tightly woven, loose-fitting clothing in light colors.
- Schedule vigorous activity and sports for cooler times of the day.
- Protect yourself from the sun by wearing a hat, sunglasses and using an umbrella.
- Increase time spent outdoors gradually to get your body used to the heat.
- During outdoor activities, take frequent drink breaks and mist yourself with a spray bottle to avoid becoming overheated.
- Try to spend as much time indoors as possible on very hot and humid days.

If you live in a hot climate and have a chronic condition, talk to your physician about extra precautions you can take to protect yourself against heat stroke.

Pulmonary Embolism (Blood Clot)

Pulmonary embolism symptoms can vary greatly, depending on how much of your lung is involved, the size of the clot and your overall health — especially the presence or absence of underlying lung disease or heart disease.

Common signs and symptoms include:

- Sudden shortness of breath, either when you're active or at rest.
- Chest pain that often mimics a heart attack. The pain can occur anywhere in your chest and may radiate to your shoulder, arm, neck or jaw. It may be sharp and stabbing or aching and dull and may become worse when you breathe deeply (pleurisy), cough, eat, bend or stoop. The pain will get worse with exertion but won't go away when you rest.
- A cough that produces bloody or blood-streaked sputum.
- Rapid heartbeat (tachycardia).

Other signs and symptoms that can occur with pulmonary embolism include:

- Wheezing
- Leg swelling
- Clammy or bluish-colored skin
- Excessive sweating
- Anxiety
- Weak pulse
- Lightheadedness or fainting (syncope)
- Fever

Protect Yourself From Damaging Sun Rays:

According to the National Cancer Institute, skin cancer is the most common form of cancer in the United States with more than 1 million newly diagnosed cases each year.

Of those newly diagnosed cases, more than 53,000 will be melanoma, which is the most serious type of skin cancer. Melanoma is becoming more common every year, and in the United States alone, the percentage of people who develop melanoma has more than doubled in the past 30 years.

The National Cancer Institute reports that skin cancers usually form on the head, face, neck, hands, and arms. While these areas receive the greatest sun exposure, skin cancer can occur anywhere. Most skin cancer appears after age 50, but the sun's ultraviolet (UV) rays damage the skin from an early age. This includes UV radiation from the sun, a sunlamp, or a tanning bed. A person's overall risk of developing skin cancer is related to his lifetime exposure to UV radiation.

The best way to prevent skin cancer is to protect yourself and your family from the sun:

- Physicians recommend that people of all ages limit their time in the sun in addition to avoiding other sources of UV radiation. People are also urged to stay out of the midday sun, usually from 10 a.m. to 2 p.m., whenever possible. Wear long sleeves and long pants made of tightly woven fabrics, in addition to a hat with a wide brim and sunglasses that absorb UV rays.
- Be sure to use sunscreen. Look for broad-spectrum sunscreens that filter both UVA and UVB rays, as well as one with a sun protection factor of 15 or higher.

Links to check out:

CPR instructions (includes a demonstration video):

http://www.ehow.com/how_2299886_perform-cpr.html

<http://www.youtube.com/watch?v=cPEFskCrdhQ>

The Heimlich maneuver (Includes instructions for drowning victims in and out of the water. Also a video demonstration):

<http://www.googobits.com/articles/p0-7-how-to-perform-the-heimlich-maneuver.html>

<http://www.youtube.com/watch?v=kJDpr05zmB4>