

Consequently, it is possible that a cave can flood, particularly if it is a cave with significant water, a waterfall, or a lake or stream passage. Caves, particularly in Carter County, may flash flood. In a flash flood, water may flow rapidly like a wave. You may have no warning. Always check the weather report and never go into a cave which appears to have the propensity for flooding when it is raining or rain is forecasted. Only adequate education, experience, and training can teach you which caves may flood.

The temperature of the body is about 98° F. If the body's temperature drops more than a few degrees, the body can no longer function properly. Since a typical cave has a fairly low average temperature (about 54° F in Kentucky) and an extremely high humidity level, it is easy to become hypothermic with extensive exposure to caves. Always carry a space blanket, extra clothing or something that protects you from the cold.

Not all caving problems involve injuries. A few people do get lost in caves, become stuck, or are unable to climb up on a rope or ledge to get out of a cave. Exhaustion and the lack of light (light failure) may cause someone to become lost who might otherwise have found their way out.

There is no substitute for experience and proper training when visiting a wild cave. Contact your local caving club (grotto) and/or the National Speleological Society. Cave lightly, cave safely.



ESSO GROTTTO:
TEACHING YOU -
ABOUT ME



JOIN A GROTTTO

E.S.S.O is a non-profit corporation* and is a chapter member/grotto of the National Speleological Society. Any person interested in caves or caving may join and all are invited to attend meetings. E.S.S.O. meetings are held on the third Monday of every month at 7:30 p.m. at Giovannis Pizza or Flatwoods Public Library, Argillite Road, Flatwoods, Kentucky.

* 501(c)(3) tax exempt charity, donations tax deductible



**Eastern States Speleological
Organization (ESSO)
A Chapter/grotto of the
National Speleological
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A complimentary publication
of the Eastern States
Speleological Organization
(E.S.S.O Grotto)

Let's Go Caving



We can't tell you everything you need or want to know about caving in this brief pamphlet. The purpose of this publication is simply to give you a very brief look at caves and caving.

Caves are the world's most remote and fragile wilderness. They provide irreplaceable habitats for rare plants and animals, some of which spend their entire lives in complete darkness. On its way to our drinking supply, water often travels through caves into wells, springs, and aquifers, the source of most of our drinking water. A caves' intricate passageways and dramatic formations offer exquisite scenery and fascinating opportunities for research and mapping.

Caving/Spelunking

Limestone caves are generally formed when surface water trickles down through the ground soil and picks up carbonic acid created by decaying plants. As the water penetrates underground cracks and fissures, the acid in the water helps to dissolve limestone and wash it away. This acidic water gradually cuts passages through the limestone and over millions of years these openings grow larger until big enough for a human to enter.

Once a cave has formed, decorations or speleothems begin to grow. Water dripping from the cave roof or flowing over walls leaves behind a deposit of limestone crystal. As time passes, these accumulate to form the spectacular formations. The amount of time it takes for Mother Nature to build a speleothem varies but it typically takes anywhere from 50 to 150 years per cubic inch of material.

Because it takes so long for the earth to replace broken cave formations, it is important not to touch any cave formation. Lint and oil from fingertips and fabric can stunt the formation's growth. Follow the NSS motto when in a cave—"take nothing but pictures, kill nothing but time, leave nothing but footprints".

Caving (spelunking) is an inherently dangerous and risky activity. If you visit any cave, canyon, cliff or karst area or feature, YOU DO SO ENTIRELY AT YOUR OWN RISK. This guide is intended only as a starting place and a thumbnail sketch of caves and caving safety, it is not intended to replace common sense, training, education or experience.

Safety—A Brief overview

1. **Always have at least three sources of light.** Your primary light source should be a headlamp, mounted on a helmet. Your secondary light can be a regular flashlight, but it should be attached to the side of your

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helmet as well. The third source can be a mini key ring light (super bright LEDs work well), waterproof matches, a cigarette lighter, "glow sticks," candles (good for warmth as well), or another flashlight. Don't forget extra batteries and bulbs!

2. **Always wear a helmet with a chin strap.** Even a cheap \$10 construction helmet with a chin strap is better than nothing. It's not even falling rocks you need to worry about so much as smacking your head.

3. **Good lug soled boots can ensure safe footing.** Your footwear should have good ankle support. Long pants and a warm shirt are a must in potentially cold caves. Gloves will save your hands.

4. **Never cave alone.** What happens if you trip and break your leg? What happens if you knock yourself unconscious? If you cave alone, you die alone.

5. **Always tell someone where you are going and when you will be back.** If your group gets lost, stuck, injured, or somehow lose your lights, how long will it take someone to find you if no one knows where you are? How long will it take your friends or loved ones to realize you're not coming back? Eight hours? A week?

6. **Never attempt climbing a pit without proper training.** "Knotted ropes" and the "hand-over-hand" technique don't work for climbs over a few feet. Clothesline, cotton rope, twine, or other dubious ropes will kill you. There is special equipment which allows you to safely get down a rope, and back up again. This equipment and these techniques take training to use safely.

7. **Never cave while under the influence of drugs or alcohol.** Even if you aren't tripping over your feet, drugs and alcohol will impair your judgment, possibly causing you to damage formations, trip and injure yourself, dramatically increase the chances of hypothermia, or make other fatal mis-

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takes. Think twice about caving if you're not feeling well or using medications.

8. **You are responsible for your own safety.** There are no phones underground, and even if there were, rescue teams can take too long to reach you. Even with immediate response, the nearest rescue team is likely 6-8 hours away, or more.

Your chances of serious injury or even death can be greatly reduced by being aware of the dangers involved, by having the adequate knowledge, equipment and techniques, and by cultivating good caving sense.

Statistically, caving accidents are mostly attributed to poor judgment, little or no caving experience, or falls. The common causes of caving accidents include falling, being struck by falling objects and hypothermia.

To reduce the risk of falling injury, one should avoid jumping and uncontrolled sliding down slopes, wear proper footwear (boots with ankle support and good lug sole), wear a good quality helmet with a chin strap, and obtain proper training.

Accidents caused by falling objects are best avoided by always wearing a helmet, securing all equipment or gear so it will not fall on other cavers, and staying clear of those who are climbing overhead.

Since most caves are formed by water, water is nearly always present, at least in some quantity.

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