



Clothing and Equipment

Being properly equipped and dressed for the cold and wet conditions typically found in caves is a requirement. Hypothermia lurks in every California cave, with the possible exception of the Pisgah lava tubes during the summer!

At left, two members of the Cave Rescue Team negotiating one of the small waterfalls in Crystal '67, one of the Team's favorite caves.

Basic caving equipment is easy to come by, although if you're going to be doing vertical caves, it can get relatively expensive. A [Basic Caving Equipment List](#) is provided.

What to do in an Emergency*

So you're on a caving trip and you or a member of your party becomes injured. In the first few minutes after this happens you must do several things to ensure the safety of the injured person and the rest of the group. The following is a checklist that everyone that caves should keep in mind just in case an injury happens.

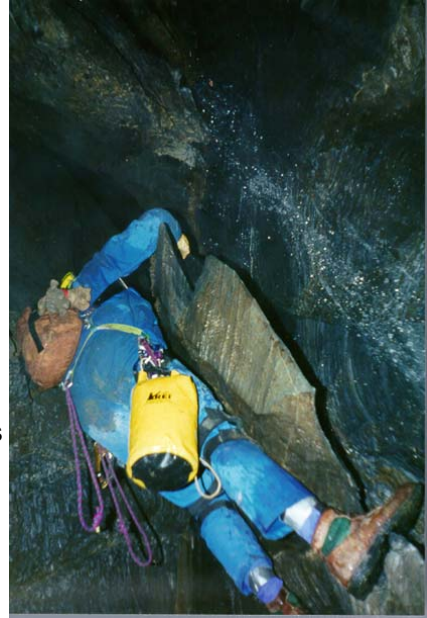
- Protect yourself first - then your patient. Don't become a victim yourself.
- Ensure that you can obtain access to the injured person safely. Check for unsafe conditions before entering an accident site and correct all dangerous conditions.
- Determine extent of injuries and stabilize the patient if you have the skills necessary. Treat for hypothermia prevention.
- Determine if the person can walk/crawl out, can be assisted to walk/crawl out, or if you will need assistance to get the person out. If there is any chance of spinal injury do not move the patient except to prevent further injury.
- If the injury is serious, use your best judgment. Begin to take notes about your patient. Pulse, respiration, and skin temperature are minimum, clearly time and date all data.
- If you need outside help, send for it or wait for your backup person to notify authorities. Remember that your backup person can only call for backup if they know exactly which cave you are in and when to expect your return from that cave.
- Inventory all equipment in your group to determine what is available; to help your patient survive, to aid your survival, and determine what may be needed from the outside. Get the information to the surface.
- When possible two people should be sent out for help, they should leave as much food and water and dry clothing as possible for the people that remain with the patient. They should carry a copy of all notes concerning patient condition and location. Include information about your needs as well as what you have on site to treat the patient with. Your messengers need to know emergency telephone numbers, have keys to vehicles, and have knowledge and experience to get out safely.

* Material in the sections above is based heavily on work done by Rick Coles, British Columbia Cave Rescue, with only a little bit of local editing. Since this was so well done, we figured, 'why reinvent this particular wheel?' Used with Rick's permission with our thanks. Visit their web site [[Press Here](#)].

Self-Rescue Options

Most self-rescue consists of having basic personal competence in caving. We felt these four levels defined by John Gookin in the *NSS News** were a great basis for beginning any discussion on self-rescue:

1. Personal troubleshooting is when you get yourself into a fix, then get yourself back out of it. It might include hobbling out of the cave on a sprained ankle, or getting your hair back out of your rappel rack. To many cavers, this may seem more like basic competence than a rescue technique, but it easily fits the definition of "rescue". It is also the first step in developing competence in self-rescue.
2. "Immediate caving group" self-rescue means that your fellow cave travelers help you using whatever materials are on hand in the cave.
3. "Extended group" self-rescue is when you go out to the surface, get other cavers *in the immediate area* to help, grab some of your camping gear and go drag your buddy out of the cave.
4. An agency rescue is when you go call 911.



*Article in the *NSS News* titled *Four Levels of Self-Rescue*, by John Gookin, NCRC Rocky Mountain Regional Coordinator. (Material developed in part from a presentation/discussion by Hemple/Heazlit.)

Why self-rescue? There are a number of reasons:

- It is often much faster and easier than calling an agency in, and in the case of the first two levels it is far simpler. There's usually no need for a litter team when all you're dealing with is a sprained ankle.
- It causes less impact to the cave than a large agency rescue. In *some* areas an "agency" rescue might mean a bunch of firemen in turnout coats and rubber boots carrying 6-cell MagLights and ladders, especially if you haven't let the local agency know they can request our team through the State Office of Emergency Services.

Why not self-rescue?

- You may kill your friend getting him out if his medical condition/injury is serious. *Be careful!* If it is a back injury, we *strongly* recommend you make the injured person as comfortable as you can and wait for us.
- It may cause complications with the law. If you kill someone knowing there are cave rescue resources available, a hard-nosed District Attorney may file criminal charges on you despite your good intentions. However, *there is no law in California* that requires you to call for help from the county sheriff or anyone else. Just be aware of the risk you are

assuming by not calling for help when you really should. (It's called "You bet your total personal assets".)

- You may not have the medical knowledge, technical expertise and/or equipment to do it safely.
- You may not have the endurance to pull it off and guarantee safety and success.

So now, what if you need an "agency" rescue?

Sheriff's Cave Rescue Team member Jeff Lehman (at right) powering a counterbalance haul system in the Great Pit of Cave of the Winding Stair during a training exercise.

The San Bernardino County Sheriff's Cave Rescue Team is listed with the California State Office of Emergency Services (OES) as cave rescue specialists. Since we're the only such team in the state, until another agency makes the commitment to support a team, *that makes us California's Cave Rescue Team.*

If you're going caving in California or the western U.S. and you have a problem that requires more than a self-rescue, make *sure* the local agency knows that they can contact California OES and request our team on a mutual aid basis. During conversations with OES, we determined that we could deliver our team and gear via airplane and helicopter to the northern end of the state in about 8 to 12 hours after we get the call. However, this is a best-case estimate. If weather and/or missed connections with the military cause problems, add some more time as appropriate. It would probably take about 6 - 10 hours for a response via truck to the Sequoia National Park area.



We, and many other rescue teams, routinely train at elevations over 7,000 feet, and rescues up to 11,000+ feet elevation are no big deal. As a Mountain Rescue Association team, we cannot envision a technical rescue we cannot cope with, or bring in additional resources to cope with. This is also a general purpose search and rescue team with the appropriate training to handle a walk in the hills that takes us above the tree line. Bottom line? If you can get to the cave entrance, so can we, but it is going to take time. So make your injured buddy as comfortable as you can and above all, keep them warm and dry until we can get there.

What if you are out of the country?

Puerto Rican and, Venezuelan cavers with Californian caver/rescue team member Susan Lavender at one of the 10 waterfalls in Juan Nieves Cave, PR. Puerto Rico has an extremely strong rescue capability and routinely hosts week-long NCRC seminars. Many other foreign countries such as Mexico, however, do not presently have a significant cave rescue capability, but this is improving.

Being on an expedition outside of the United States can really be the "worst case scenario" for cave rescue. If you are one of the people "out there" doing real expedition caving you really need to be the most concerned about self rescue since



it will take considerably longer to get a cave rescue response from the U.S. on scene. In an emergency, expeditions will be largely on their own. If there is any possibility that the patient can be stabilized on a long term basis, your best bet may be to make him as comfortable as possible and head for the nearest embassy to start your own international incident. It will probably take somewhere in the neighborhood of two to three days to deliver rescue teams to remote sites in Mexico, but it *can* be done.

There is information out on the InterNet about self rescue. One of the more interesting is from England: [The Expedition Rescue Guide](#). Alan Warild's *Vertical* has some applicable techniques also.

Hiking Info

<http://www.hellobc.com/en-CA/SightsActivitiesEvents/AirLandActivities/Hiking/VancouverIsland.htm>