

NCRC Seminar, Required Personal Equipment

Personal equipment must be in safe, usable condition and marked to identify the owner. Equipment deemed unsafe or unacceptable during check-in must be replaced prior to the student's continued participation in the course.

CLIMBING HELMET

UIAA or CE approved mountaineering style helmet with three (or more) point suspension, and non-elastic chinstrap

THREE SOURCES OF LIGHT

All capable of allowing you to exit the cave. At least two should be electric and two helmet-mountable.

BOOTS

Sturdy, rubber soled

RUGGED CLOTHING

SIX LOCKING CARABINERS

Independent of your ascending or descending systems

DESCENT DEVICE

Any of the following types of devices are acceptable:

1. standard rack
2. four-bar Micro rack with a hyper-bar (4 bars total)
3. bobbin with safety carabiner (*Bobbin is a generic term for devices like the Petzl Stop. You can use any of the commercially available brands/models.*)
4. "Rescue Eight" with ears

SEWN SEAT HARNESS

ASCENDING SYSTEM

Complete working system with at least two points of gripping attachment above center of gravity

1. An additional ascender or prusik must be available for crossing knots, etc.
 2. One of the system's ascenders must be functional as a Quick Attachment Safety (QAS)
 3. Frog system must have a link (e.g., long cowstail) from their upper ascender to their harness
- Note: we strongly encourage use of a caving ascending system that employs mechanical ascenders. Frog, Mitchell, Texas, and Rope Walker systems are common examples. While you might be able to get by with an improvised system, a well-tuned caving system will be better suited to seminar activities. Examples of these systems are illustrated in On Rope (Smith and Padgett), and can be purchased from numerous caving equipment vendors.*

GLOVES

Must have leather palms and full fingers

WATER BOTTLES

Two quarts recommended

SMALL, PERSONAL FIRST AID KIT

Optional, but recommended

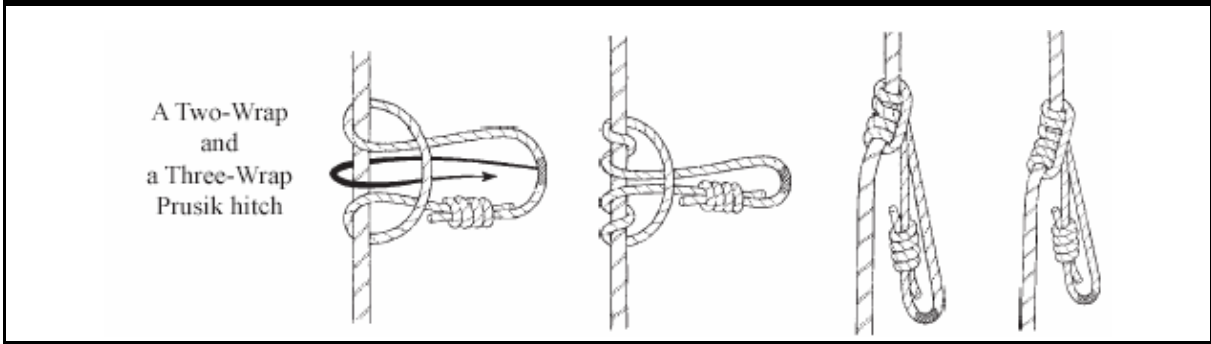
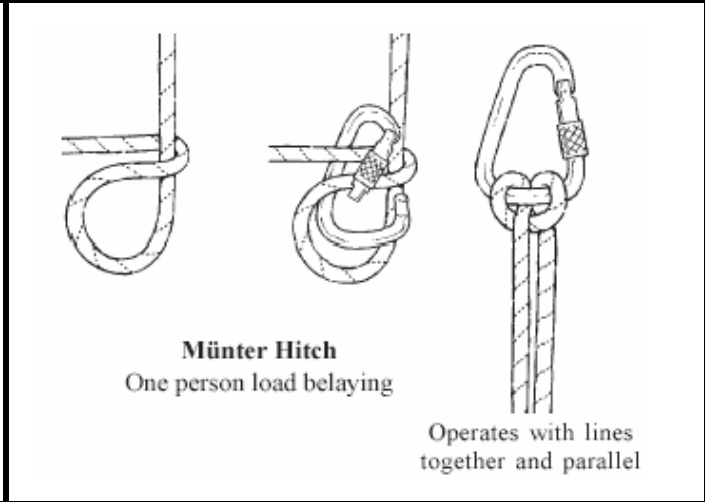
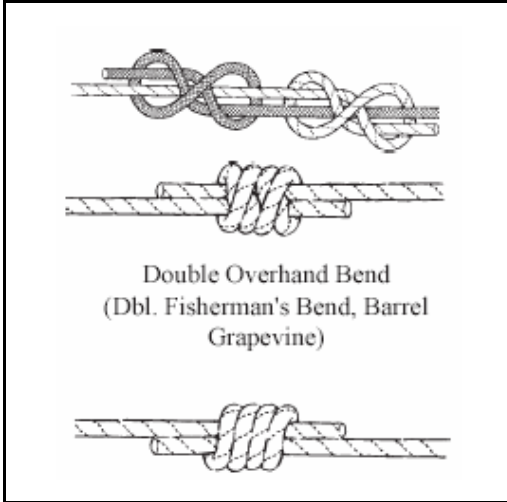
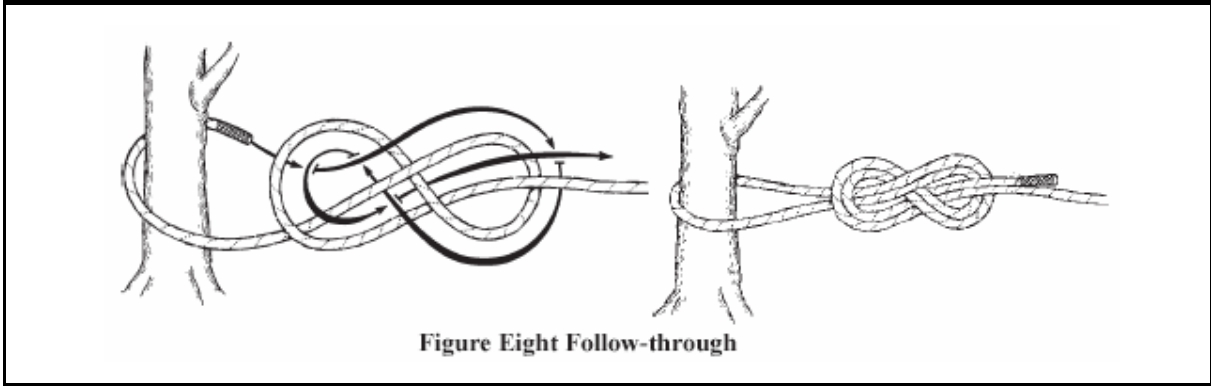
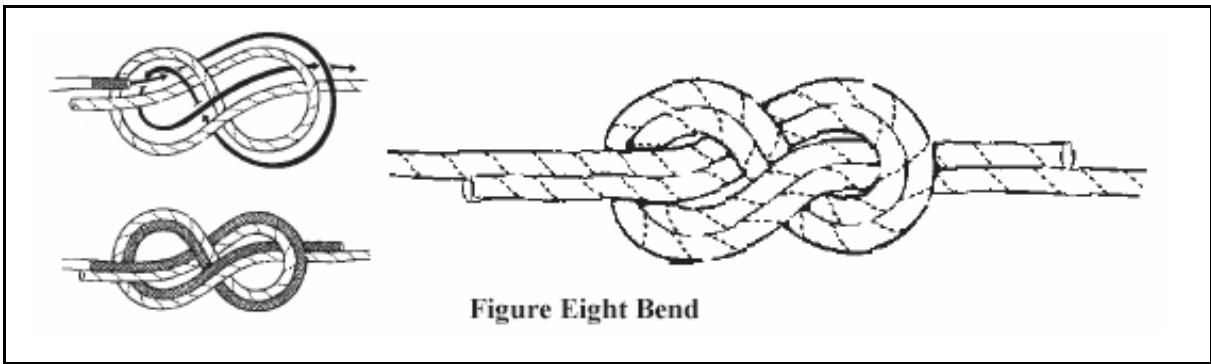
SMALL, HEAVY-DUTY PACK

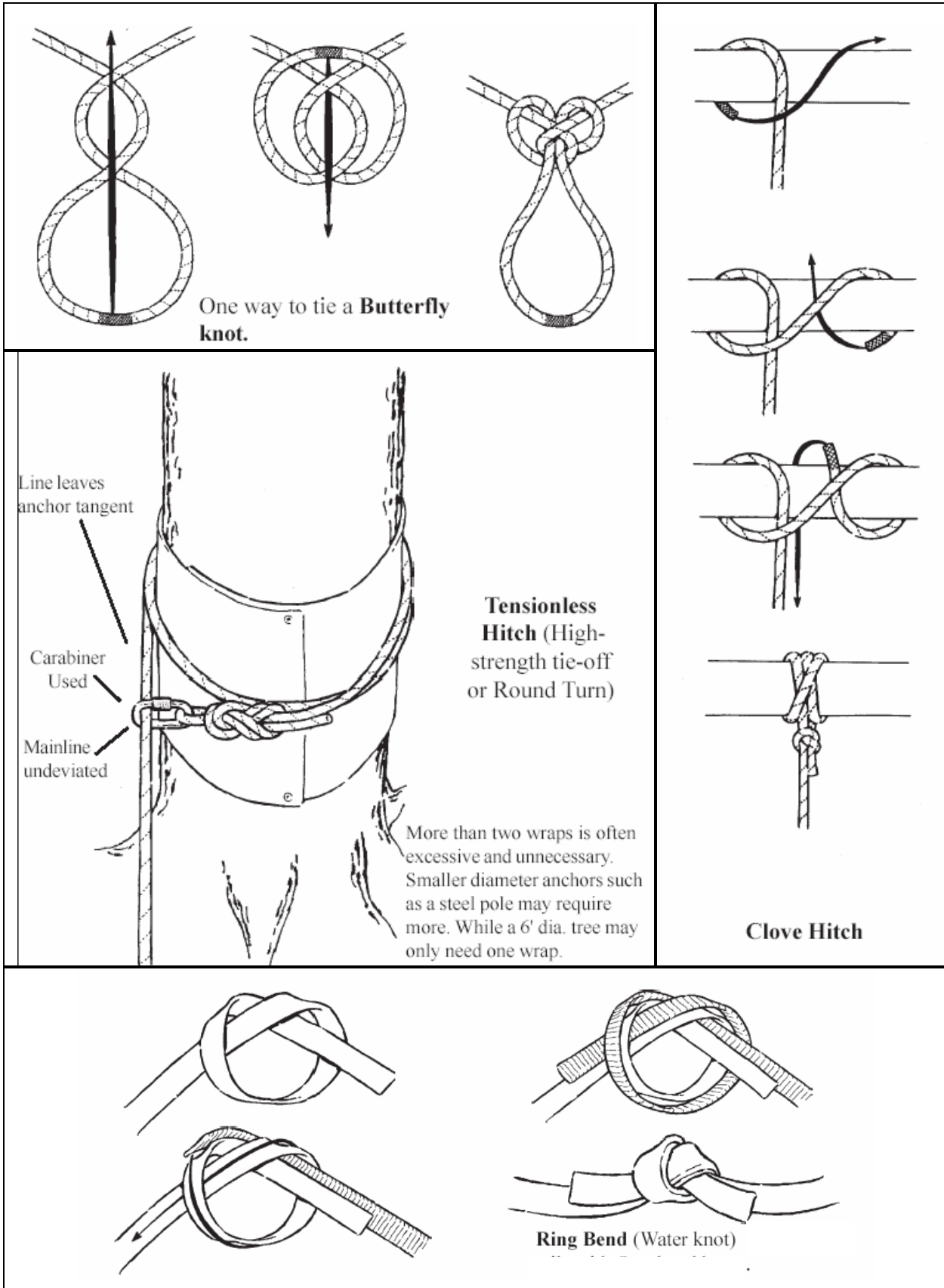
Used to carry personal gear around underground

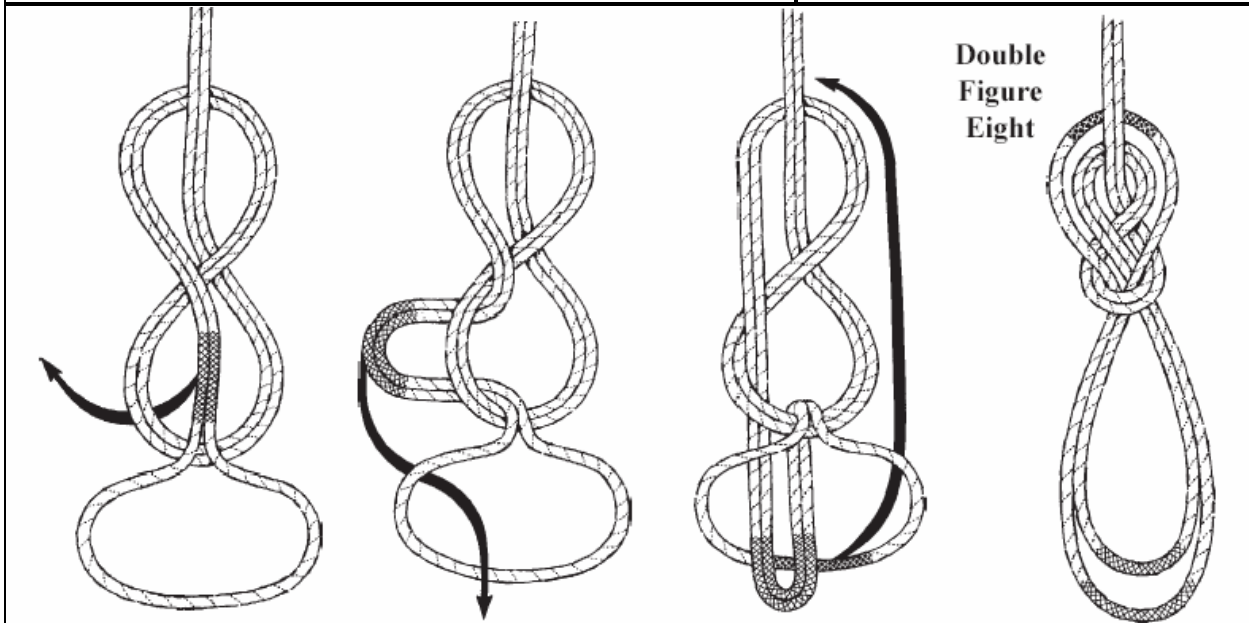
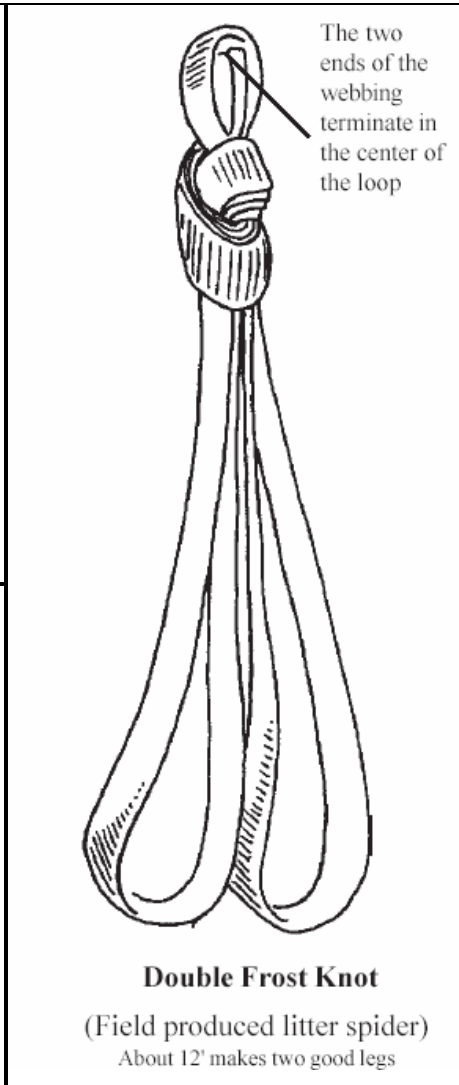
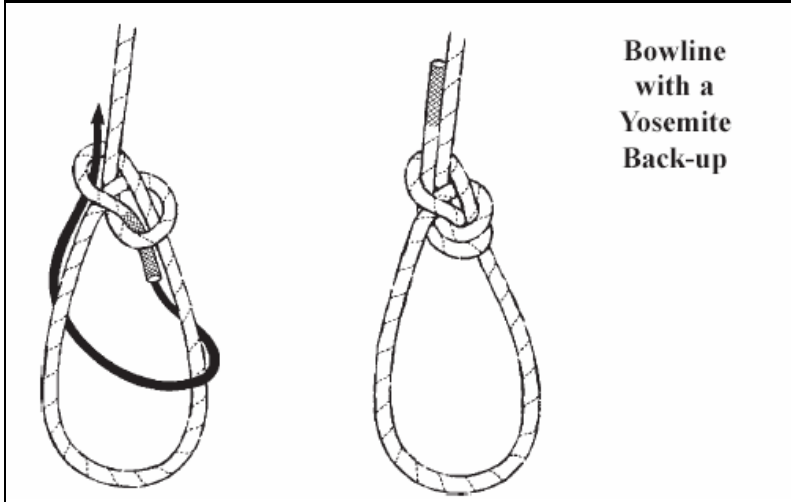
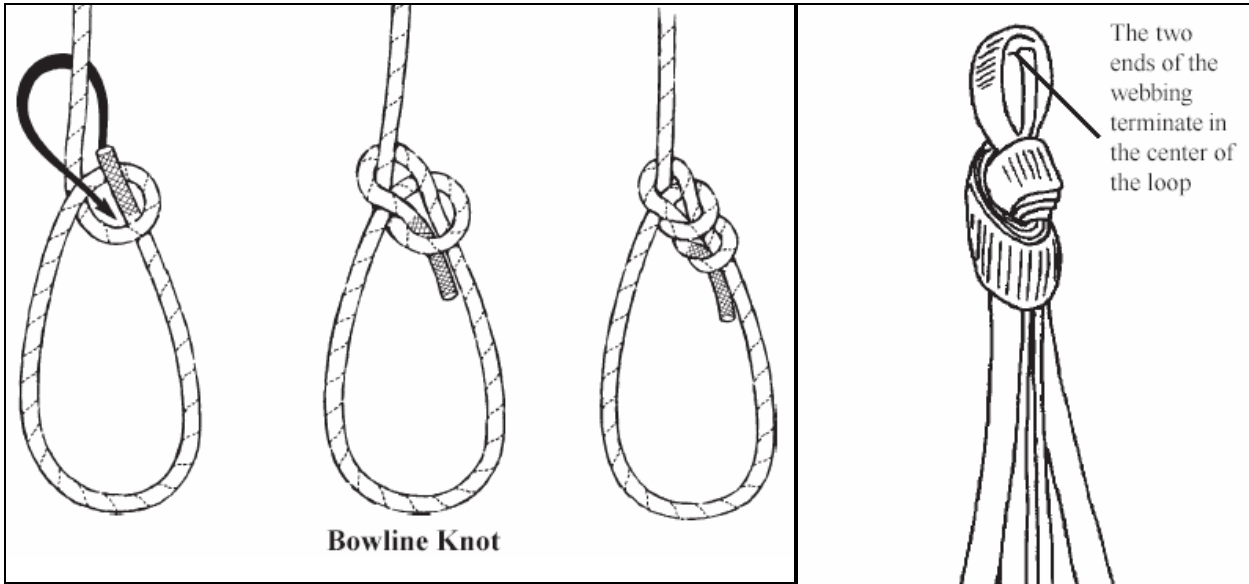
2 – 20 FT PIECES OF 1-INCH TUBULAR WEBBING

WET SUIT & PERSONAL FLOATATION DEVICE (Required for Level 3 only)

Knots



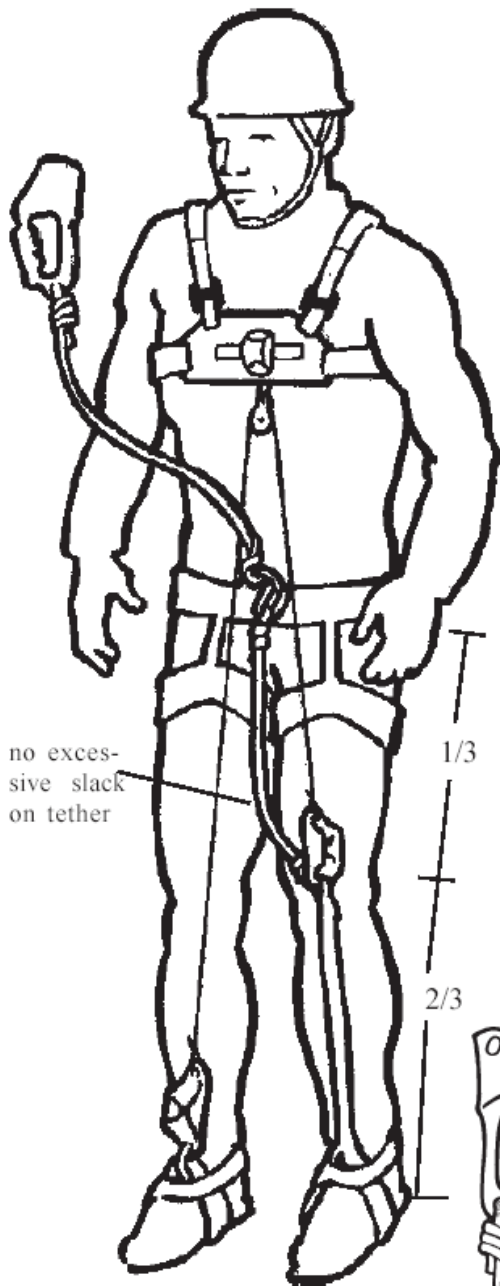




Climbing Systems

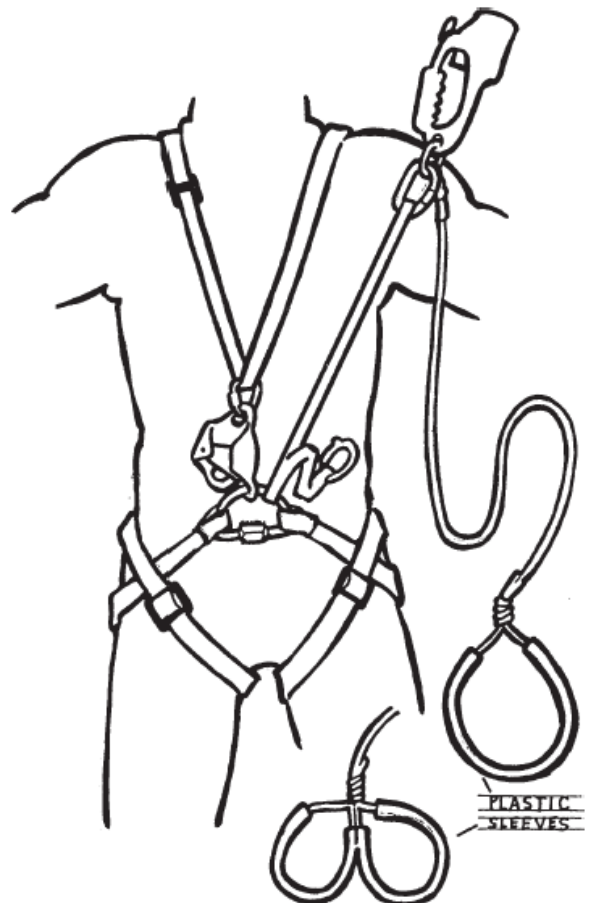
You will need to come prepared with a working climbing system. Because you are assuming the role of a rescuer you must upgrade your current climbing system to incorporate two gripping points of attachment at or above the waist. (A chest roller is not considered gripping attachment.)

There are many systems that work, there are far more that do not work. Here are depicted some of the proven systems. **If you are unsure**, make your system look like one of these.



Double Bungie Climbing System

You will need a **Quick Attachment Safety (QAS)** for numerous applications.

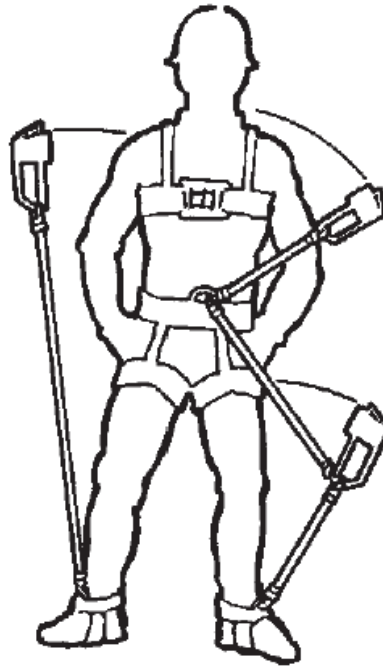


Frog System

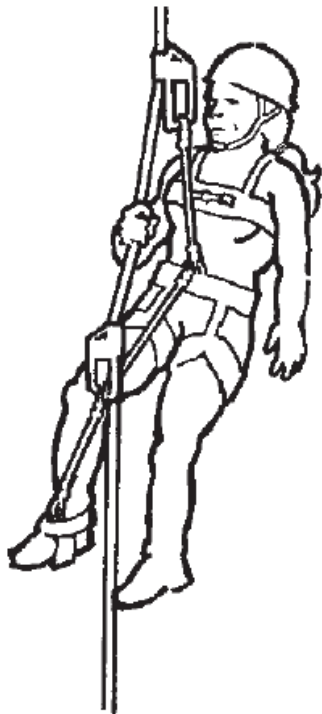
ALTERNATIVE
FOOT LOOPS



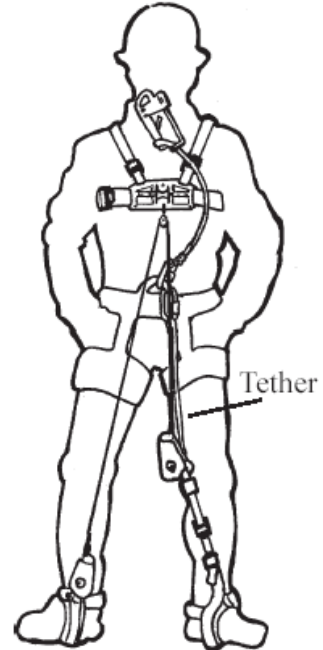
Single Bungie Ropewalker



Mitchell Climbing System



Texas Climbing System



Double Bungie Gibbs