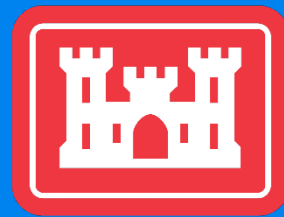


# Water Safety Information for Volunteer/Employee Training and Safety Briefings



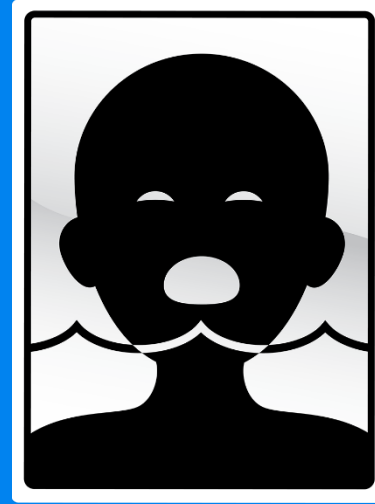
**US Army Corps  
of Engineers®**

# Four Signs of Someone Drowning



## Head Back

Bobbing Up  
and Down  
Above and  
Below the Surface



## Mouth Open

Gasping for Air



## Not Yelling

Can't Call  
For Help



## Arms Flapping

Slapping the Water  
Surface Looking Like  
They are Climbing an  
Invisible Ladder

Link to a video that shows the signs of someone drowning, <https://www.youtube.com/watch?v=9fyvtNewabM>

# Proper Rescue Techniques

## Reach, Throw, Row, Go For Help



If the person is close,  
**Reach** out with a  
long object.



If you cannot reach the  
person, **Throw** them  
anything that floats.



If there is nothing to  
throw, **Row** a boat  
to the person in  
trouble.



Never place yourself in  
danger by going in for  
the person. Instead,  
**Go For Help!**

# USACE Safety Manual Section

## Regarding Life Jackets

EM 385-1-1 30-Nov-2014

### 05.J Personal Flotation Devices (Pages 5-29 – 5-31)

05.J.01 Inherently buoyant Type III, Type V work vests, or better USCG-approved personal flotation devices (PFDs) **shall be provided and properly worn in closed fashion (zipped, tied, latched, etc.) by all persons in the following circumstances:** > See 05.J.02 and Figure 5-1.

- a. On floating pipelines, pontoons, rafts, or stages;
- b. On structures or equipment extending over or next to water except where guardrails, personal fall protection system, or safety nets are provided for employees;

05.J.01 continued.

- c. Working alone at night where there are drowning hazards, regardless of other safeguards provided;
- d. In skiffs, small boats, or launches, unless in an enclosed cabin or cockpit; or
- e. Whenever there is a drowning hazard.

**05.J.02 Automatic-Inflatable PFDs** Type V or better, USCG-approved for Commercial Use, may be worn by workers in lieu of inherently buoyant PFDs (see conditions 05.J.01.a-e above), provided the following criteria is met:

- a. PFDs are worn only by workers over 16 years of age and those who weigh 90 lbs. (40.8 kg) or more;
- b. An AHA shall be developed for the intended activity and shall be used to select the most appropriate PFD for the activity;

05.J.02 continued.

**c. PFDs must be inspected, maintained, stowed and used in accordance with the manufacturer's instructions.** PFDs used in heavy construction or maintenance activities or where hot work (welding, brazing, cutting, soldering, etc.) is to be performed must be designed, tested and certified by the manufacturers for this type of work;

**> Note: The standard commercial auto-inflatable PFD does not meet these requirements.**

**d. PFDs shall provide a 30-pound minimum buoyancy, post-deployment, and shall have a status indicator window;**

**e. Personnel shall be trained in the use, maintenance, restrictions, care, storage, inspection and post-deployment procedures per manufacturer's instructions;**

05.J.02 continued.

f. The USCG-approval for auto-inflatable PFD's is contingent upon the PFD being worn, not stowed. All auto-inflatable PFDs must be worn at all times a drowning hazard exists.

**g. In-water testing is required for all first-time users so that wearers become familiar with the feel and performance of the PFD.**

05.J.03 All wearable PFDs shall be of an international orange (or orange/red) or ANSI 107 yellow-green color.

a. Each inherently buoyant PFD shall have at least 31 in<sup>2</sup> (200 cm<sup>2</sup>) of retroreflective material attached to its front side and at least 31 in<sup>2</sup> (200 cm<sup>2</sup>) on its back side, per USCG requirements (46 CFR Part 25.25-15).

05.J.03 continued.

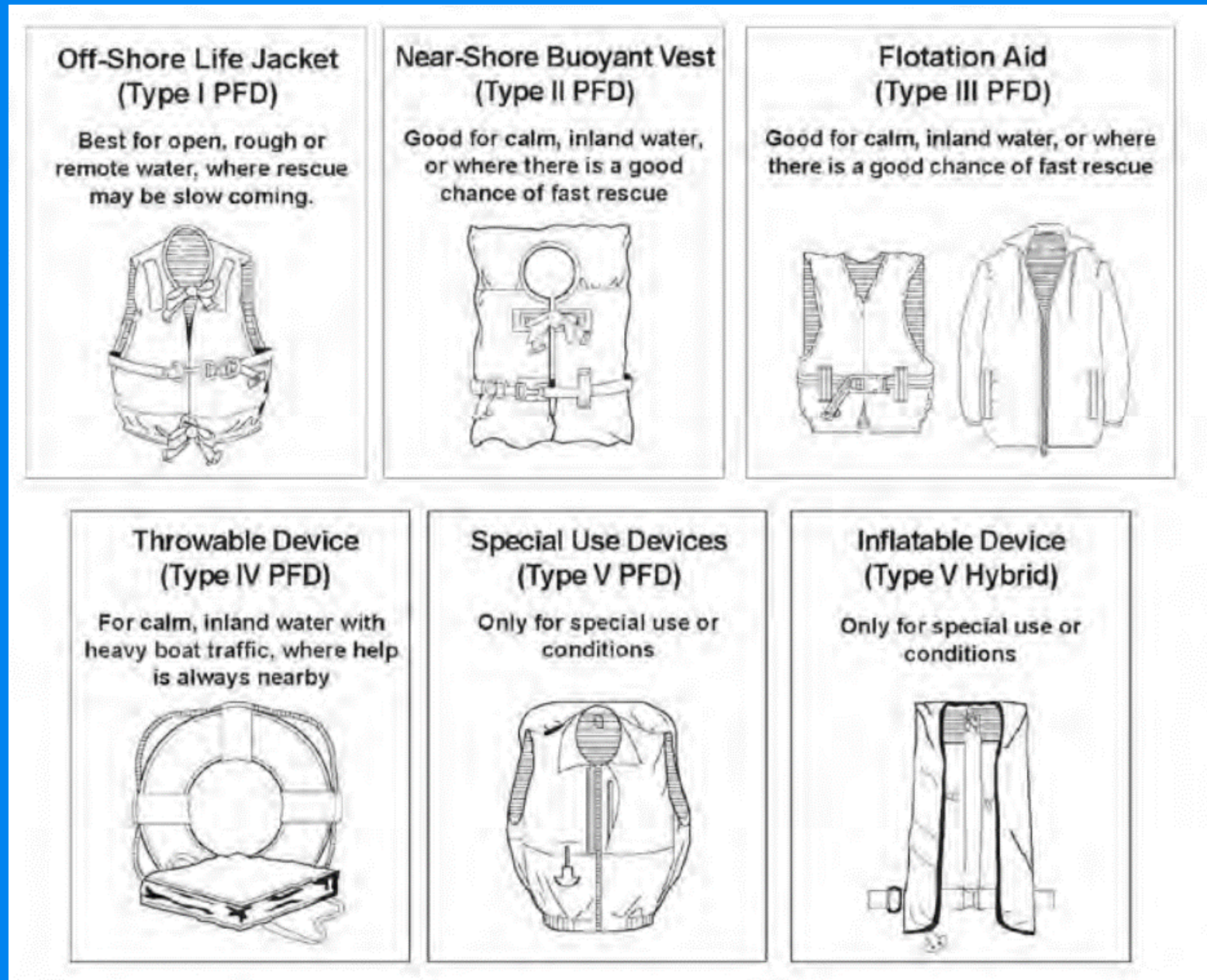
b. Each auto-inflatable PFD shall have at least 31 in<sup>2</sup> (200 cm<sup>2</sup>) of retroreflective material attached to its front side and at least 31 in<sup>2</sup> on its bladder, to be visible when deployed (with the exception of Work Vests, which are allowed to have a total of 31 in<sup>2</sup> front and back, combined).

05.J.04 Each PFD shall be equipped with a USCG-approved automatically activated light. Lights are not required for PFDs on projects performed exclusively during daylight hours.

**05.J.05 Before and after each use, the PFD shall be inspected for defects that would alter its strength or buoyancy.**



FIGURE 5-1 Personal Flotation Devices, EM 385-1-1 30-Nov-2014 (Page 32)



# Off-Shore Life Jackets

These life jackets provide the most buoyancy. They are effective for all waters, especially open, rough, or remote waters where rescue may be delayed. They are designed to turn an unconscious wearer to a face-up position in the water.



**US Army Corps  
of Engineers®**



# Near-Shore Buoyancy Vests

These life jackets are intended for calm, inland waters or where there is a good chance of quick rescue. This type will turn some unconscious wearers to a face-up position in the water, but the turning is not as pronounced as with an off-shore life jacket.



**US Army Corps  
of Engineers®**





# Flotation Aids

These life jackets are good for users in calm, inland waters, or anywhere there is a good chance of quick rescue. The wearer may have to tilt their head back to remain in a face-up position in the water. This type has the same minimum buoyancy as near-shore buoyancy vests, but generally will not turn an unconscious wearer to a face-up position in the water. Float coats and vests (fishing, paddling, etc) designed with features suitable for various sports activities are examples of this type.

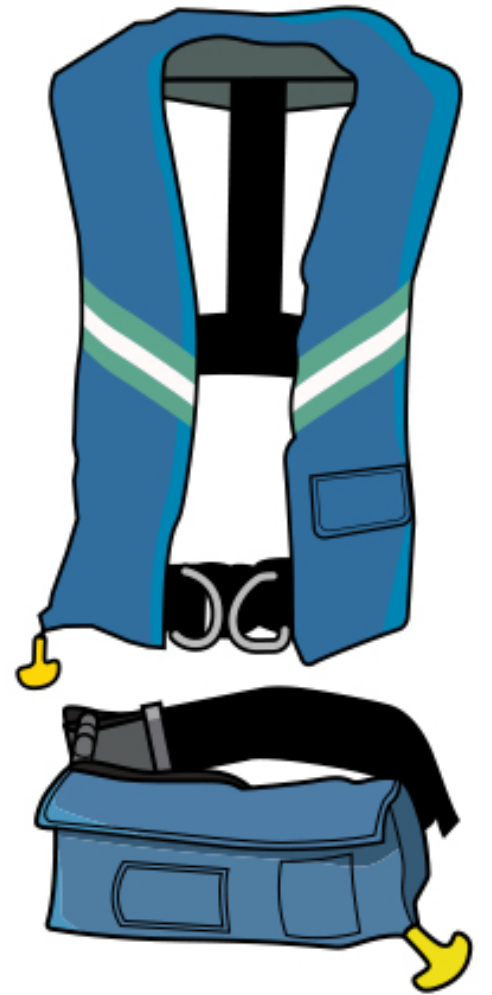


**US Army Corps  
of Engineers®**



# Inflatable Life Jackets

Provide the performance of a near-shore buoyancy vest or flotation aid (as marked on its label). After inflated they may or may not turn an unconscious wearer to a face-up position in the water. The belt-style inflatable life jacket must be worn in front of the user so it can be inflated properly in front of them.



**US Army Corps  
of Engineers®**



# Throwable Devices

These flotation devices are intended for use anywhere. They are designed to be thrown to someone in the water and grasped and held by the user until rescued. They are not designed or intended to be worn and a user should not place this type on their back. A throwable device should not replace a wearable life jacket, but should be used as an extra flotation aid with a wearable life jacket.



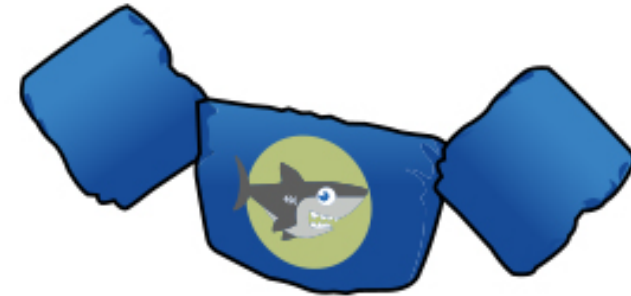
**US Army Corps  
of Engineers®**





# Special-Use Devices

These life jackets provide the performance of an off-shore life jacket, near-shore vest, or flotation aid (as marked on its label). Varieties include deck suits, work vests, sailboarding vests, sailing vests with a safety harness, and child-style that has two arm bands, chest panel and buckles in the back. The child-style mentioned is a special-use device because it must be worn with the buckle located on the back of the wearer. Some styles of this type of life jacket provide significant protection against cold water immersion and hypothermia.



**US Army Corps  
of Engineers®**



# **Wear It Right**

## **Five Key Steps to Choosing and Fitting a Life Jacket**

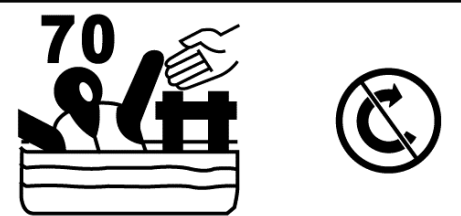







# 1 Check the Label

The label will tell you:

- Whether the life jacket is U.S. Coast Guard approved
- The size of the life jacket  
(Sizes run from infant to 2XL)
- How the life jacket can be used

<b>ADULT UNIVERSAL</b> User Weight: >40 kg (>88 lbs) Chest Size: 76-132 cm (30-52 in.)	
	
	
<ul style="list-style-type: none"><li>• Drowning hazard if not worn.</li><li>• Must be fastened and properly adjusted to float the wearer.</li></ul> <p>Choose and wear the device which fits you and your activity, visit <a href="http://www.wearitlifejacket.org">www.wearitlifejacket.org</a>. Read and keep the owner's manual and tags for info such as rearming, wear, and care.</p>	
Company Name Company Address Company website if available Made in XXXXX	 Certifying Lab Identification
<b>USCG Approved 160.064/XXXX/X</b> <b>TC Approved XXXXXX-X</b> <b>ANSI/CAN/UL 12402-5</b> Model: XXXX      Style: XXXX Lot No. XXXX	
Approval conditions state that this device must be worn to be counted as equipment required by vessels meeting Transport Canada or USCG regulations.	
<b>Use:</b> <ul style="list-style-type: none"><li>• Fasten all closures and adjust for a snug fit.</li></ul> <b>Inspection:</b> <ul style="list-style-type: none"><li>• Inspect your life vest before each outing. Do not use if your life vest shows signs of weathering, damage, or rot.</li></ul> <b>Care and Storage:</b> <ul style="list-style-type: none"><li>• Dry thoroughly after each outing.</li><li>• Store in a dry, cool place out of direct sunlight.</li></ul> 	

## 2 Check for Damage

Check that there are no broken parts and no mold or rips in the fabric.



# 3 Fasten Up



Fasten all buckles, zippers, and straps.  
Adjust straps so that the life jacket fits snugly.

# 4 Check for Proper Fit

- Lift the shoulders of the life jacket.
- Make sure it does not slip above the chin or ears.
- It should feel snug, yet comfortable. A properly-fitted life jacket keeps your head and shoulders above water. You will be able to swim with it on, too.





# 5 Please Wear It!

A life jacket only works if it's worn.

Make sure you have the right life jacket to wear before you go on, in, or near open water (lakes, rivers, etc.).

Test your life jacket in shallow water or a pool so you will know how it will float you.



# Does Your Life Jacket Fit You Properly?

Life jackets come in sizes to fit babies through larger adults. They are intended to keep you afloat in lakes, rivers, and other bodies of water.

Worn correctly, they work!

Life jacket should feel snug, yet comfortable. Lift up on the shoulders to make sure it doesn't slip above your chin or ears.

Check the label for U.S. Coast Guard approval, weight limit, and activity types.

Straps should be pulled tight and not twisted.

All buckles and zipper, if it has one, should be fastened.

Damaged life jackets should be discarded and replaced. Check often for mold, broken parts, holes, tears, and buoyancy.

Infant and some child life jackets have a strap between the legs. Be sure to fasten that for extra protection.



US Army Corps  
of Engineers®



[www.Bobber.info](http://www.Bobber.info)



# Inflatable Life Jackets

It is important that you inspect and make sure all life jackets are in good condition. For inflatable life jackets it is critical that you inspect and maintain them to ensure they will work if you need them to save your life.

Check your life jacket owner's manual and follow the manufacturer's recommendations on when to inspect it and how to maintain it.



**Blow Up Your  
Life Jacket Every  
2-6 months!**

**Inflate, Inspect for  
Leaks, Repack,  
and Wear It.**

**Use Oral Inflator**





# **Inflatable Life Jackets: Everything You Need to Know Video**

**<https://www.youtube.com/watch?v=g5eniRI0mXM&t=311s>**

This video includes:

General Information Regarding Inflatable Life Jackets

Brands & Styles

Care & Maintenance

# How to Throw a Life Ring

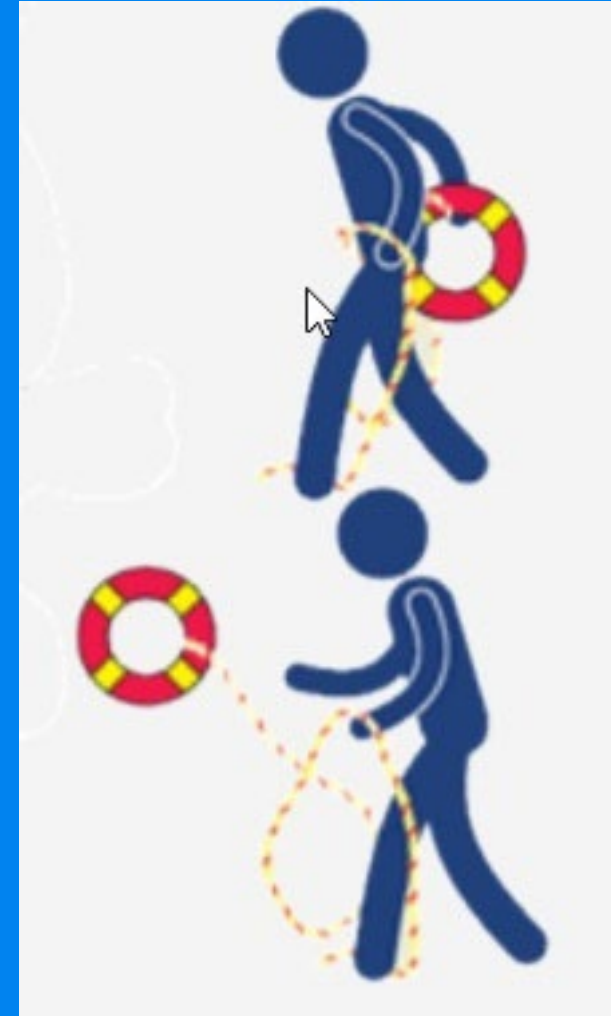
Before throwing life ring drop the end of the rope and stand on it.

Hold life ring in your dominant hand and grasp rope with your other hand.

Communicate with the person by yelling “rope, rope, rope” or “throw, throw, throw”.

In an underhand motion throw life ring near the person and pull it towards them.

After they have ahold of life ring pull them slowly towards you using a hand over hand method.



# Rescue Throw Bag Demonstration



Watch this video to learn how to properly throw a rescue throw bag.

<https://m.youtube.com/watch?v=2zJOL40GOtc>

# LET IT GO!

It's Not Worth Losing Your Life Over.

**47% of all drownings  
occur in Undesignated  
Swimming Areas**

Volunteers/Employees must wear a life jacket whenever there is a drowning hazard, so that includes wearing one while on a dock.

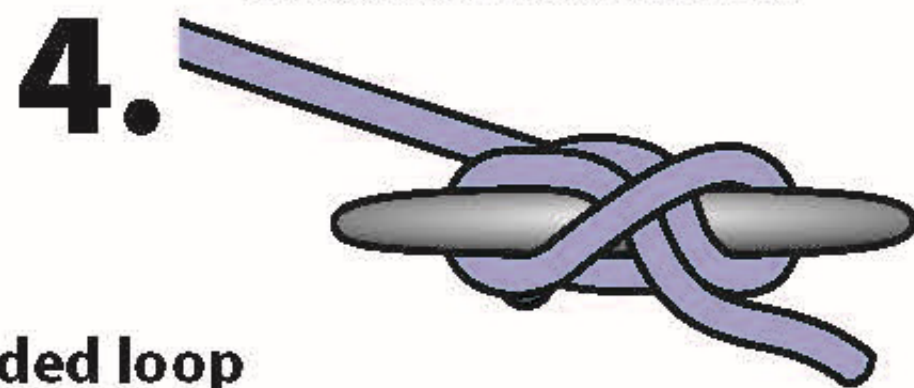
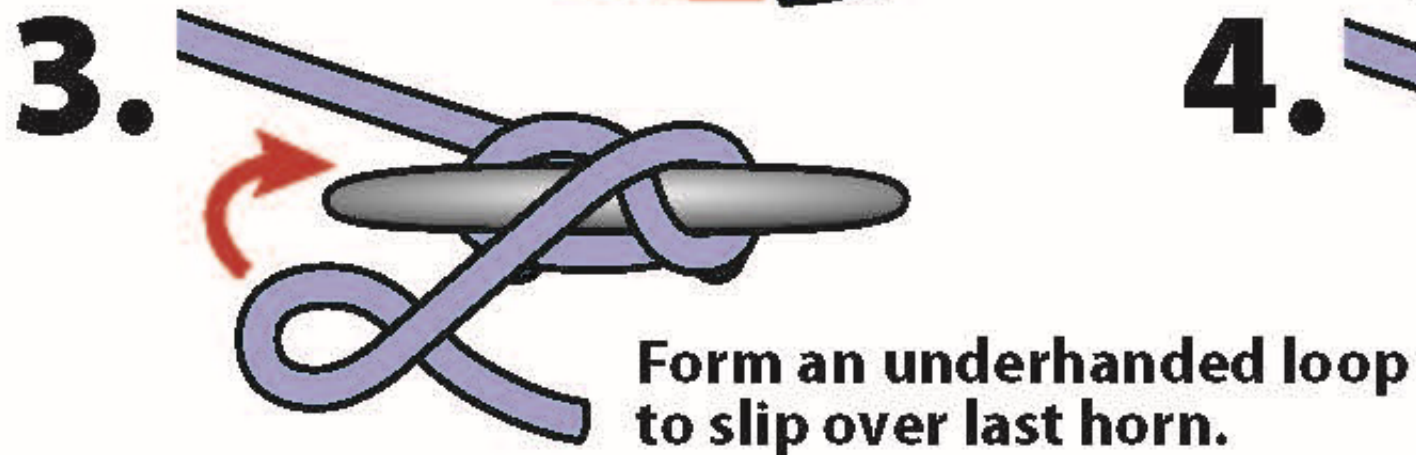
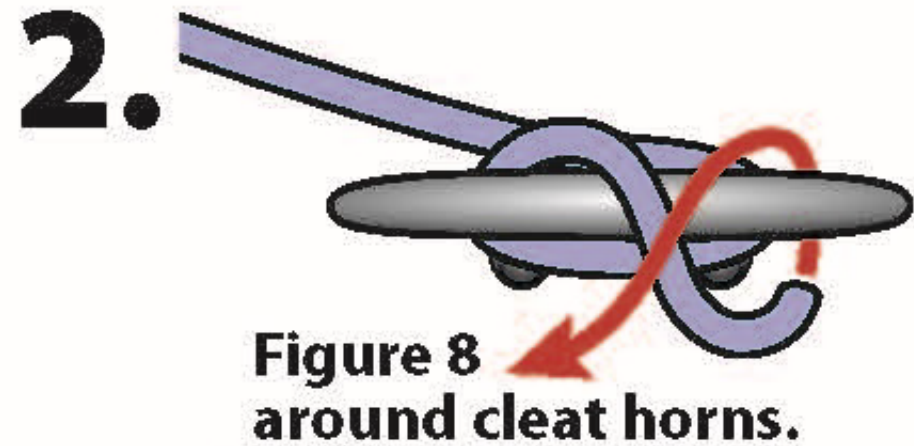
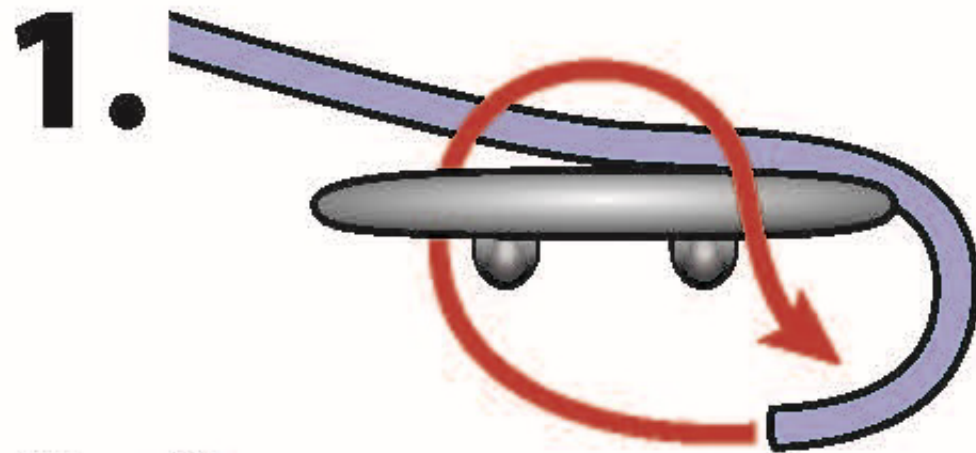


US Army Corps  
of Engineers®



# Knot Tying

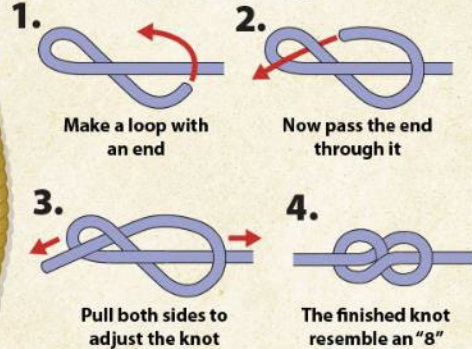
## CLEAT HITCH



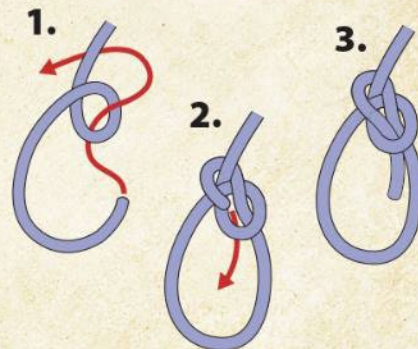


# Knot Cheat Sheet

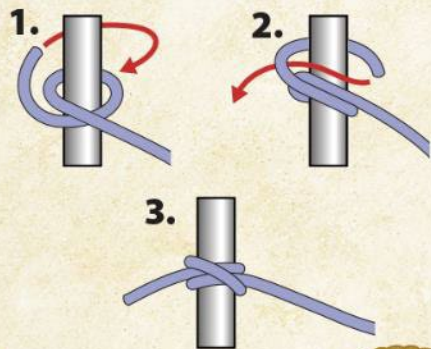
## Figure Eight



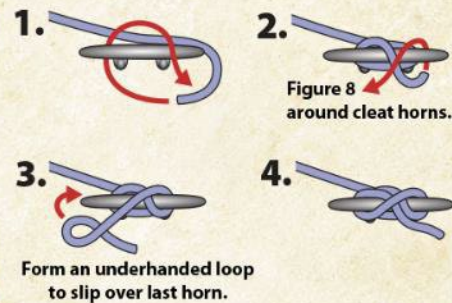
## Bowline



## Clove Hitch



## Cleat Hitch



US Army Corps  
of Engineers®



## Links to Instructional Videos

### Figure Eight Knot

<https://www.youtube.com/watch?v=NjA5E2Oeq7g>

### Bowline Knot

<https://www.youtube.com/watch?v=21EKnQaDo8k>

### Clove Hitch Knot

<https://www.youtube.com/watch?v=L0VPM1h399c>

### Cleat Hitch Knot

<https://www.youtube.com/watch?v=2CLt4BEBMRk>



# COLD WATER KILLS **ARE YOU NEXT?**

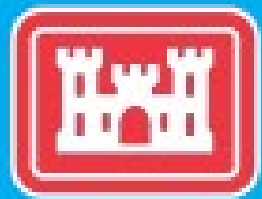


Falls are involved  
in 19% of all water-  
related fatalities

Cold water causes  
an involuntary gasp  
(or torso) reflex



Cold Water Shock - 1 Min  
Cold Incapacitation - 10 mins  
Hypothermia - 1 Hour



US Army Corps  
of Engineers®



It takes less than  
 $\frac{1}{2}$  cup of water in  
your lungs to drown





# **COLD WATER FACT:**

**Body heat can be lost 25 times faster in cold water than cold air.**



**US Army Corps  
of Engineers®**





# **COLD WATER FACT:**

**Dress for water temperature,  
not air temperature.**



**US Army Corps  
of Engineers®**



# COLD WATER FACT:

**Wearing a life jacket significantly increases your chances of survival.**



**US Army Corps  
of Engineers®**



Link to Cold Water Boot Camp video regarding importance of life jackets.

<https://www.youtube.com/watch?v=KDUUyC34ZTA>



# COLD WATER KILLS

**1 minute - Cold Shock**

**10 minutes - Incapacitation**

**1 hour - Hypothermia**



US Army Corps  
of Engineers®



Link to Cold Water Boot Camp video regarding the 1-10-1 Rule.

<https://www.youtube.com/watch?v=4ZBqQeeS7kY&t=10s>

# HELP & Huddle Positions



HELP position

Huddle position



# What to Do if You Fall Through the Ice



US Army Corps  
of Engineers®

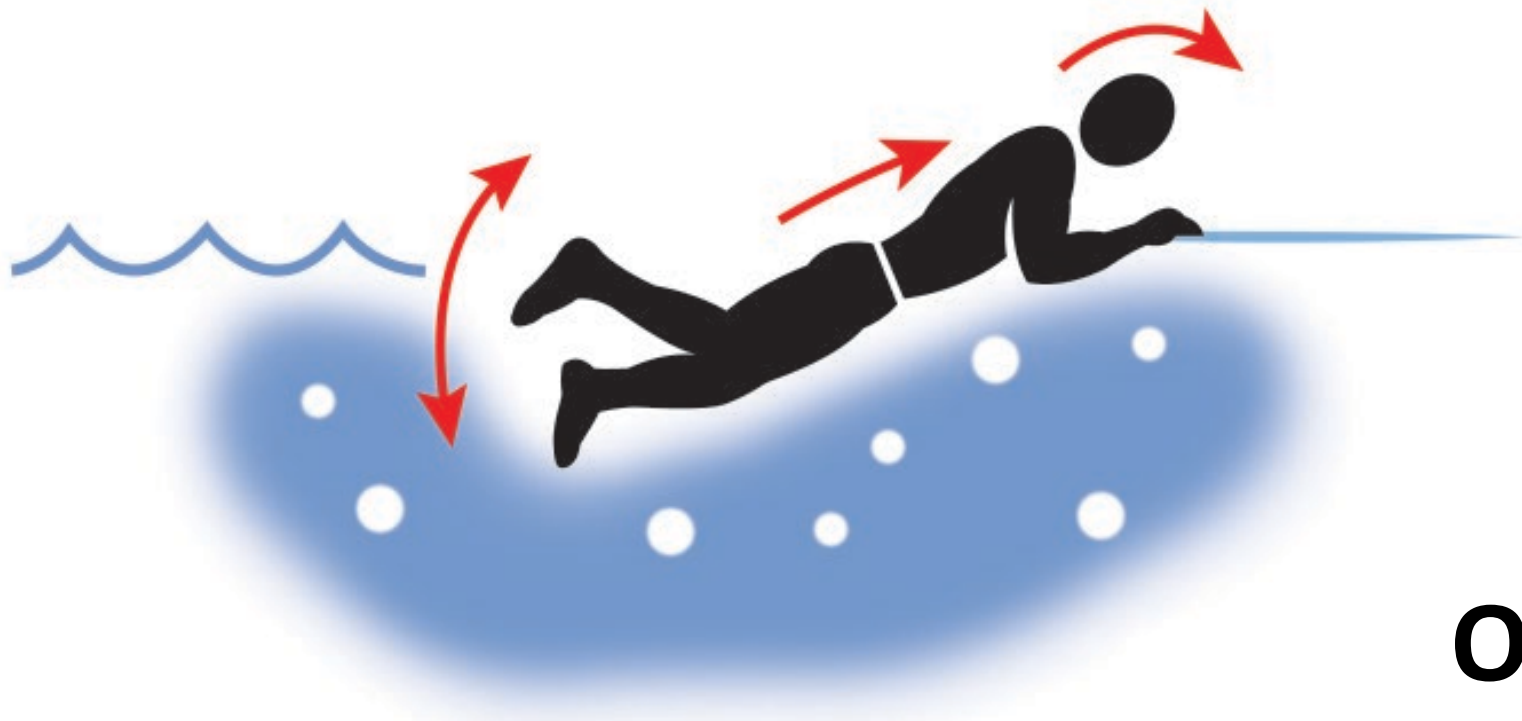


## **STAY CALM**

The shock of plunging into cold water more than likely will cause you to gasp and possibly hyperventilate. Resist this if you can – the shock will wear off in 1-3 minutes and you have 15-45 minutes to escape before you lose consciousness.







## **ORIENT YOURSELF**

Get back to where you fell through. This ice held you before. Don't try to pull yourself straight up; become horizontal by kicking your feet while using your elbows or sharp objects such as ice picks for traction.

## LIE FLAT

Once out, roll away to prevent further cracking in the ice. Get to a warm, dry place and seek medical attention.







## **SAVING SOMEONE**

If someone falls in, call 911. Then try coaching them through the self-rescue process. It is critical to keep yourself low and on solid ground. Then you may be able to extend a looped rope, ladder, or branch to help pull them out or throw them something that floats.



US Army Corps  
of Engineers®

## Water Safety Resource Guide for Interpretive Services and Educational Outreach



Updated 2021

This resource guide includes several water safety interpretive programs that can be used as is or modified to use during volunteer/employee training and safety briefings.

[https://corpslakes.erdc.dren.mil/employees/watersafety/pdfs/  
WaterSafetyResourceGuide-2021.pdf](https://corpslakes.erdc.dren.mil/employees/watersafety/pdfs/WaterSafetyResourceGuide-2021.pdf)