

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



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# 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>

A lot of people think that when a person is drowning, they'll be able to call out for help and wave their arms. People get this perception from watching movies where they see a Hollywood rendition of a drowning person. Actually, drowning is silent, with subtle signs that are easy to miss. By the time a person begins to drown, they can no longer speak at all. Their mouth is sinking below the water, reappearing just long enough to gasp in a breath before going down again. As they bob up and down, they won't thrash or wave. Instead, they will hold their arms out to the side or front trying to "paddle" back to the surface. This can look like they are trying to climb an invisible ladder. It only takes 20 seconds for a child to drown and 60 seconds for an adult to drown. The best thing that you can do to help ensure that you never experience these signs or see someone else experience them is to wear a properly fitted life jacket and ask others that you are with to wear them too while they are in, on, or near open water (lakes, rivers, etc.).

# 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!**

The most important thing to do before trying to assist someone in the water such as a person that is drowning is to assure your own safety, so you don't become a victim yourself. You can follow these four steps to help someone; reach, throw, row, go for help. Reach for the person using your hand or anything that extends your reach, such as a pole, tree branch, or paddle. If your reach won't work, throw something that will float, or they can grab and be pulled to safety. If you have nothing to throw or the person is too far a way you can row a watercraft, if available, out to the person or get the attention of nearby boaters to help the person. Don't go, you should not swim out to the person. Even a strong swimmer can drown trying to help someone. People drown every year because they don't think before jumping in the water to save someone. Some don't even make it to the person they are trying to save and drown because they exceeded their swimming ability. Others have drowned when the person they are trying to save holds them underwater because they are fighting to save their life. Several incidents have occurred where the person in trouble gets to safety and the person that jumped in to help them drowns. If you can't reach, throw, or row something to a person that is in trouble in the water don't go in for them, go for help.

Here is a link to a Reach, Throw, Row, Don't Go video created by the Nashville District.

(copy and paste in internet browser)  
<https://m.youtube.com/watch?v=WyOkVhEEFQI>

# 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;

If you have any questions about any information in the USACE Safety Manual (EM 385-1-1) please contact your District Safety Office.

Link to USACE Safety Manual (copy and paste in internet browser)

[https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM\\_385-1-1.pdf?ver=7Cpck\\_22Ct\\_-w6QSGyOKVQ%3d%3d](https://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf?ver=7Cpck_22Ct_-w6QSGyOKVQ%3d%3d)

The Safety Manual is also available as an app on the Apple App Store and Google Play Store.

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).

Regarding 05.J.02.g. "In-water testing is required for all first-time users so that wearers become familiar with the feel and performance of the PFD", this is not a suggestion it is a requirement for all employees and volunteers that are going to wear an automatic-inflatable life jacket.



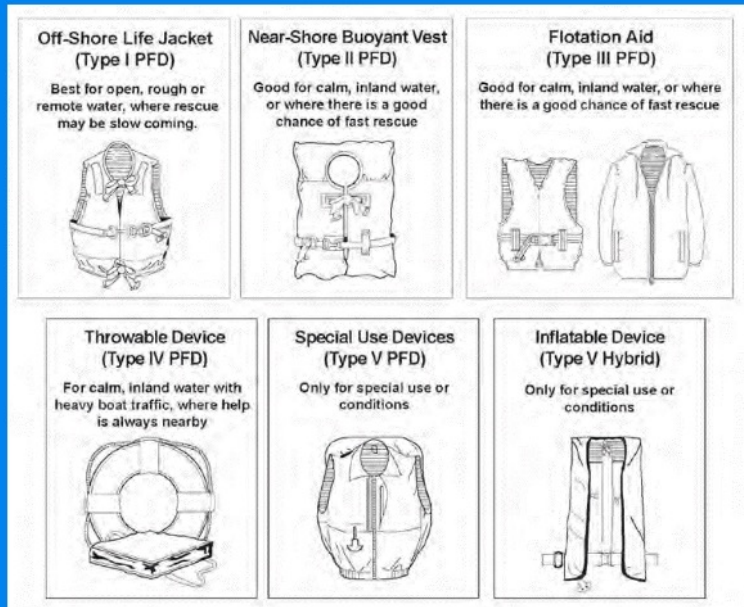
05.J.03 continued.

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.



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## 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.



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## 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.



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## 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.



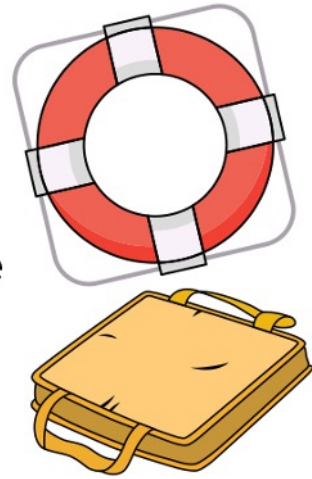
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## Throwable Devices

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.



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## 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.



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# **Wear It Right**

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



Life jackets are designed to help you float while in the water and can save your life, so make sure that your life jacket fits you properly. They come in many styles and colors so choose the right one for you and your water activity.

# 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.)	
<b>70</b> 	
    	
<p>• Drowning hazard if not worn.</p> <p>• Must be fastened and properly adjusted to float the wearer.</p> <p>Choose and wear the device which fits you and your activity: visit <a href="http://www.wearlifelifejacket.org">www.wearlifelifejacket.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	Lab Certification Mark
USCG Approved 166.064/XXXXX TC Approved XXXXXXXX-X ANSI/CANUL 12422-5 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> • Fasten all closures and adjust for a snug fit. <b>Inspection:</b> • Inspect your life vest before each outing. Do not use if your life vest shows signs of weathering, damage, or rot. <b>Care and Storage:</b> • Dry thoroughly after each outing. • Store in a dry, cool place out of direct sunlight.	
    	

## 1. Check the Label

The label will tell you if the life jacket is Coast Guard approved, size of the life jacket, and what activities the life jacket can be used for. Sizes range from infant to extra extra large. Adult life jackets will not work for children and should not be worn by them until they weigh about 90 pounds.

## 2 Check for Damage

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



2. Check for Damage  
Check for broken parts, mold, and rips in the fabric.

### 3 Fasten Up



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

#### 3. Put Life Jacket On and Fasten It Up

Fasten up 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.



### 4. Check for Proper Fit

Lift up on the shoulders of the life jacket. Make sure it does not come up above your 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. It is recommended that you perform a test wearing your life jacket in shallow water with an adult within arm's reach.

## 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.



### 5. Please Wear It

A life jacket only works if it is worn properly. Take the time to be prepared. Make sure you have and wear a life jacket that fits you properly when in, on, or near open water (lakes, rivers, etc.).



The poster version of this image is available on the NRM Gateway in the water safety section in the Water Safety Graphics Library/Water Safety Designs.  
(copy and paste this link on an internet browser)  
<https://corpslakes.erdc.dren.mil/employees/watersafety/water.cfm>

## **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**

It is highly recommended that employees and volunteers that are issued an automatic-inflatable life jacket watch this 9-minute video.

The automatic-inflatable life jacket with hydrostatic activation shown in this video is a model that is approved for employees/volunteers to wear. The other inflatable life jackets shown in this video are not approved for employees/volunteers to wear.

This video was produced by the USACE National Water Safety Program in cooperation with the Corps of Engineers Natural Resources Education Foundation (The Corps Foundation).



# How to Throw a Life Ring

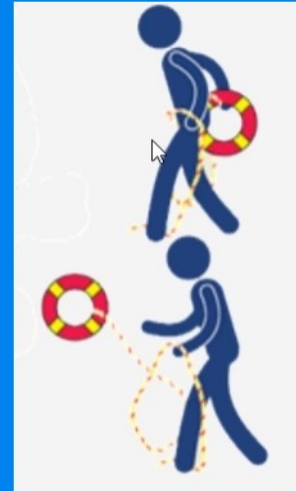
Before throwing life ring drop the end of the rope and stand on it.

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>



The poster version of this “Let It Go!” image is available on the NRM Gateway in the water safety section in the Water Safety Graphics Library/Water Safety Designs.

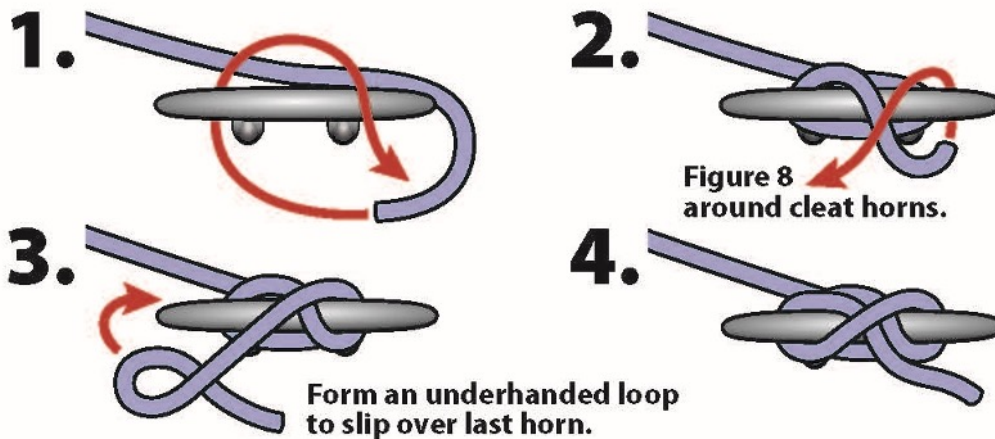
(copy and paste this link on an internet browser)

<https://corpslakes.erdc.dren.mil/employees/watersafety/water.cfm>

A good place to put this poster is on boat ramp information boards, in campground and day use restrooms, etc.

# Knot Tying

## CLEAT HITCH



A good training tool to help learn how to tie this knot is a practice board. Secure a cleat to a 2" x 4" board and have employees, volunteers, visitors, boaters, etc. practice this knot using short pieces of rope. You could even make it a competition to see who can tie the knot the fastest, but remember it is not all about how fast you tie it. It is if the knot is tied correctly that is important.

This cleat hitch knot image is available on the NRM Gateway water safety section in the Water Safety Graphics Library/Water Safety Designs.

(copy and paste this link on an internet browser)

<https://corpslakes.erdc.dren.mil/employees/watersafety/water.cfm> and as a sticker from the USACE National Water Safety Program. The sticker can be handed out to visitors or placed on sturdy, flat material and secured near cleats on docks so visitors see it and learn how to tie the knot properly.

## Knot Cheat Sheet

**Figure Eight**

1. Make a loop with an end
2. Now pass the end through it
3. Pull both sides to adjust the knot
4. The finished knot resembles an "8"

**Bowline**

1. Make a loop
2. Pass the end through the loop
3. Pull the end through to tighten

**Clove Hitch**

1. Wrap the rope around the post
2. Cross the rope
3. Pull the ends to tighten

**Cleat Hitch**

1. Form a loop
2. Figure 8 around cleat horns
3. Form an underhanded loop to slip over last horn
4. Pull to tighten

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Life Jackets Worn... Nobody Drowns  
PleaseWearIt.com

### 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>

The poster version of this image is available on the NRM Gateway water safety section in the Water Safety Graphics Library/Water Safety Designs.  
 (copy and paste this link on an internet browser)  
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The 3' x 8' banner version of this image is available on the NRM Gateway water safety section in the Water Safety Graphics Library/Water Safety Designs.  
(copy and paste this link on an internet browser)  
<https://corpslakes.erdc.dren.mil/employees/watersafety/water.cfm>



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(copy and paste this link on an internet browser)  
<https://corpslakes.erd.c.dren.mil/employees/watersafety/water.cfm>

# **COLD WATER FACT:**

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



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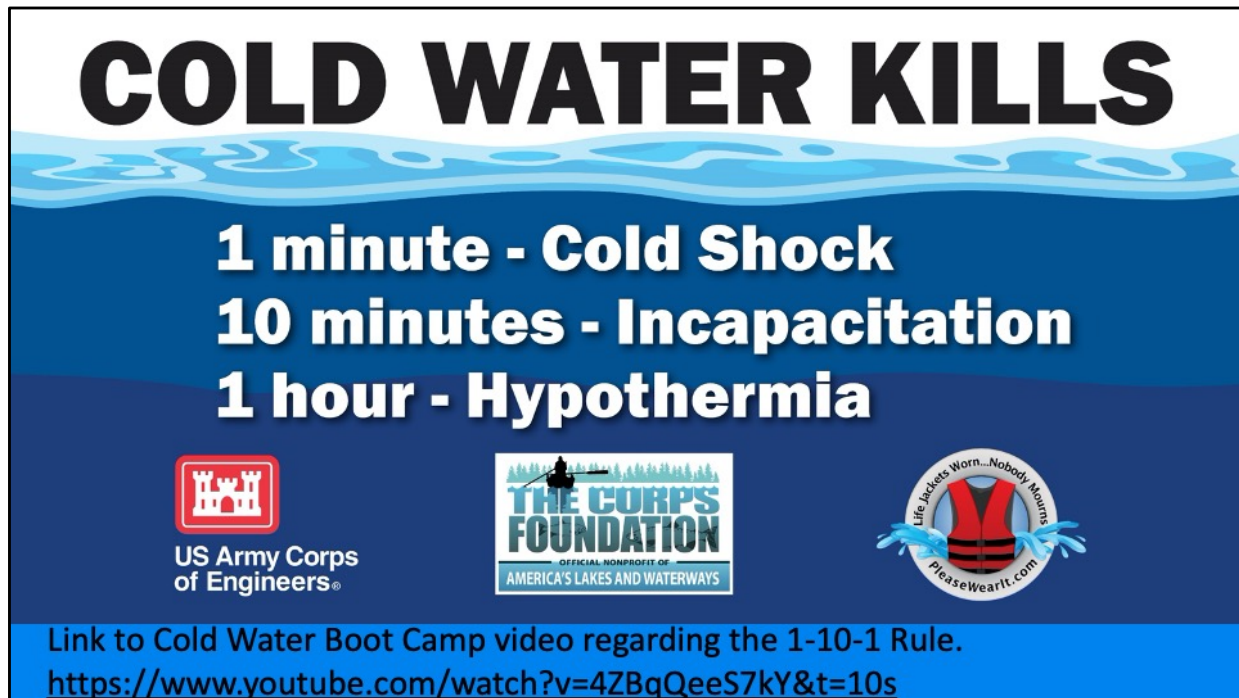
**Link to Cold Water Boot Camp video regarding importance of life jackets.**

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

The 3' x 8' banner version of this image is available on the NRM Gateway water safety section in the Water Safety Graphics Library/Water Safety Designs.

(copy and paste this link on an internet browser)

<https://corpslakes.erdc.dren.mil/employees/watersafety/water.cfm>



The 3' x 8' banner version of this image is available on the NRM Gateway water safety section in the Water Safety Graphics Library/Water Safety Designs.

(copy and paste this link on an internet browser)

<https://corpslakes.erdcdren.mil/employees/watersafety/water.cfm>

A good place to place these banners is in the boat ramp/access areas.

Link to Cold Water Boot Camp 10-minute video (copy and paste in internet browser)

<https://www.youtube.com/watch?v=fXqQLZ6wPdk>



Wearing a life jacket increases your survival time in cold water. When safety isn't nearby these positions can retain body heat giving you more time to be rescued. The HELP (Heat Escape Lessening Posture) and Huddle positions protect critical body areas and slow down loss of heat.

# What to Do if You Fall Through the Ice



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## **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

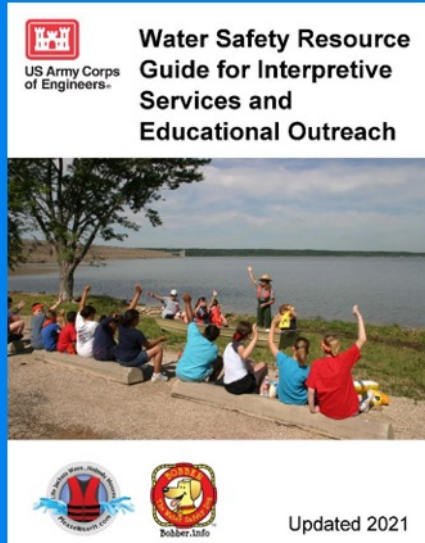
Once out, roll away to prevent further cracking in the ice. Get to a warm, dry place and seek medical attention.





## **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.



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>

The Water Safety Resource Guide for Interpretive Services and Educational Outreach is on the NRM Gateway.

<https://corpslakes.erdc.dren.mil/employees/watersafety/pdfs/WaterSafetyResourceGuide-2021.pdf>