



# TEACHERS GUIDE

Co-funded by the  
Erasmus+ Programme  
of the European Union



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# WHY SHOULD YOU READ THIS?



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# Similarities and differences: water rescue, first aid.

## Rescue from the water Used equipment



- Dry wetsuit;
- Wetsuit;
- Lifeguard vest;
- Raft + paddles;
- Float buoy;
- Throwing bag;
- We do not organize rescue from the ice.



- Dry wetsuit
- Wetsuit
- Lifeguard vest
- Life buoys
- Float buoy
- Throwing bag
- We do not organise rescue from the ice.



- Dry wetsuit;
- Lifeguard vest;
- Neoprene gloves;
- Life buoys;
- Paddles;
- Reel with rope;
- Float buoy;
- Swimming goggles or mask;
- Ring Buoys;
- Rescue from the ice:
  - ✓ shoe spikes,
  - ✓ belt,
  - ✓ jacket,
  - ✓ branch.

# Similarities and differences: water rescue, first aid.

## First aid Methods Equipment



- Nitrile gloves;
- Dressing material;
- Strangler;
- Turnstile;
- Backboard(s) with head immobilizer and straps;
- Scoop frame;
- Neck collars;
- Vacuum splints;
- Sam splints;
- First aid kits;
- AED;
- AMBU bags;
- Resuscitation mask, veil;
- Resuscitation manikins (Adult, junior, baby);
- ACT FAST - vest for training Heimlich maneuver.



- Back Pack:
  1. gloves;
  2. CPR Masks;
  3. First aid; supplies;
- Backboard(s) with head immobilizer and X-straps;
- Scoop frame;
- Neck collars;
- Vacuum splints;
- Sam splints;
- First aid kits;
- AED;
- AMBU bags (BMV);
- Resuscitation manikins (Adult, junior, baby);
- ACT FAST - vest for training Heimlich maneuver, or Heimlich manikins.



- Hip packs:
  1. Resuscitation masks;
  2. Disposable gloves;
  3. First aid supplies;
- Backboard(s) with head immobilizer and straps;
  - First aid kit;
  - AED(s);
  - AMBU bags.





## Rescue from the ice surface with rescue sledges (Accident)

### Presented situation:




The lifeguard with the sledge moves towards the alleged victim who is on the plow, snatches it firmly, pulls it on the sledge, and the rescuer on the shore pulls the sledge ashore with the help of a rope.

Environmental conditions (season, indoor/outdoor): Frozen water or imitation ice plow.

Step	More details	Need equipment	Photo
1. The alleged victim holds the ice on the plow	Rescuers prepare rescue sledges and self-protective equipment. Depending on the thickness of the ice (running or lying down with the help of spikes),	Lifeguard vest; Rescue sledges; Reel with rope; Helmet – 2 pcs. <b>If training on ice:</b> Shoe spikes – 2 pcs. Dry type wetsuits – 2 pcs; Neoprene gloves - 2 pcs;	
2. The rescuer with the sledge approaches the victim			

## Rescue from the ice surface with rescue sledges (Accident)



Step	More details	Need equipment	Photo
<p>3. A loop is placed on the arm above the elbow</p>	<p>the rescuer moves with the sledge towards the victim, while the other stays ashore and maintains the rope connecting the rescue sledge and the rescuer.</p>		
<p>4. The victim is firmly picked up and given a signal that he can be pulled ashore</p>	<p>As it approaches the victim, it is taken firmly, placed in a loop above the elbow and raised so that it can be pulled out, then a signal is given that it can be pulled ashore.</p>		
<p>5. The victim is pulled out of the plow.</p>			



## Rescue with a buoy



### Presented situation:



After being hit in the water, the rescuer comes to the alleged victim and, depending on his condition, transports him ashore with the help of a buoy.

**Environmental conditions:** body of water or swimming pool.

Step	More details	Need equipment	Photo
1. The alleged victim or manikin is floating on the surface of the water	The alleged victim (unconscious) or the manikin floats on the surface of the water at a distance of approximately 20-25 m from the shore. The rescuer comes to the victim, if necessary his back turns to himself and takes the buoy.	Float buoy, Wetsuits - 2 pcs.	
2. The rescuer swims towards the victim by attaching a lifebuoy			

## Rescue with a buoy



Step	More details	Need equipment	Photo
<p>3. The rescuer rushes to the victim, holding him on the buoy</p>	<p>Holding the chin of the victim with one hand and holding the buoy with the otherhand, he puts the victim on the water at the same time. After lying down, the victim is transported to shore.</p>		
<p>4. The rescuer transports the victim towards the shore</p>			
<p>5. The victim was taken ashore.</p>			



## Rescue with a lifebuoy



### Presented situation:



Unconscious in the water, the rescuer comes to the victim and transports him towards the shore with one hand behind his chin.

**Environmental conditions:** body of water or swimming pool.

Step	More details	Need equipment	Photo
1. The alleged victim or manikin is floating on the surface of the water	The Savior sails in a free style, pushing the rescue circle in front of him. When he reaches the victim, he takes him by the hand and puts on a lifeline.	Life buoys, Wetsuits - 2 pcs.	
2. The rescuer swims towards the victim by pushing the rescue wheel			

## Rescue with a lifebuoy



Step	More details	Need equipment	Photo
<p>3. The rescuer approaches the victim and holds the rescue wheel by holding him by the hand</p>	<p>The victim is transported ashore with one hand holding the lifeline rope and the other hand breaks</p>		
<p>4. The rescuer transports the victim towards the shore while holding his chin</p>			
<p>5. The victim was stranded</p>			


## Rescue without additional measures



### Presented situation:


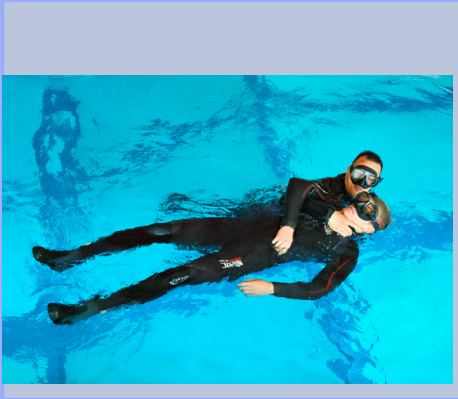
Unconscious in the water, the rescuer comes to the victim and transports him towards the shore with one hand behind his chin.

**Environmental conditions:** body of water or swimming pool.

Step	More details	Need equipment	Photo
1. Alleged victim or dummy immersed in water	The rescuer sails towards the victim (freestyle). Approaching turns for faster transportation.	Wetsuits – 2 pcs; Swimming goggles or mask – 2 pcs	
2. The rescuer sails towards the victim			


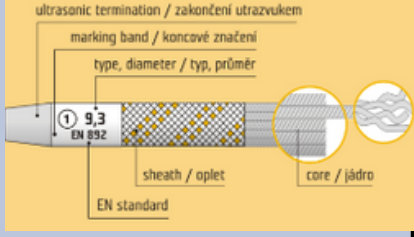
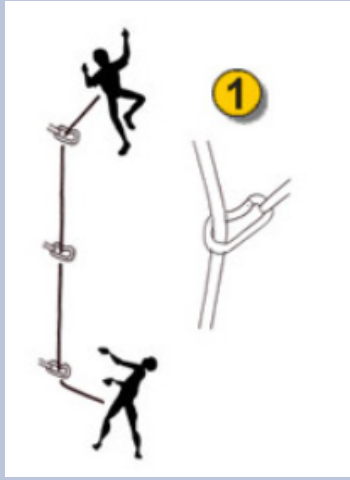
## Rescue with a lifebuoy



Step	More details	Need equipment	Photo
<p>3. The rescuer swims in and the victim turns his back towards him</p>	<p>It is most convenient to transport by the chin, but other modes of transport can be used. To make it easier to keep the victim afloat, the rescuer can immerse themselves in the water during periodic transport (after inhaling plenty of air), thus reducing the weight of his body in the water.</p>		
<p>4. The rescuer transports the victim towards the shore while holding his chin</p>			
<p>5. The victim was floated ashore</p>			

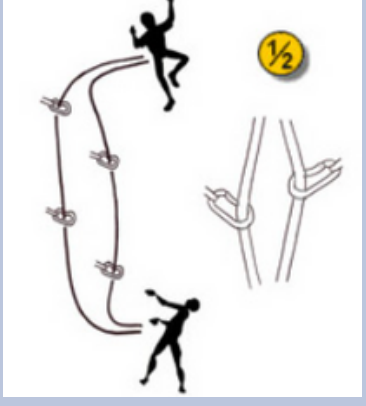
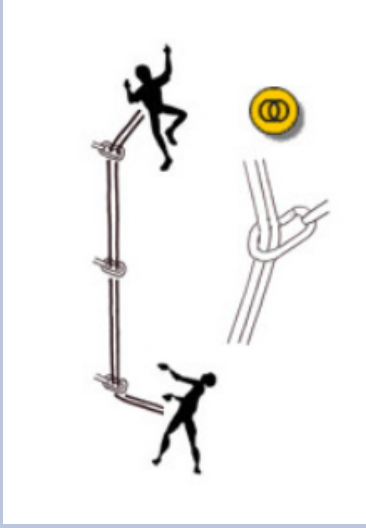
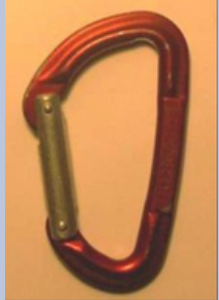
## Equipment



<p><b>Static ropes</b></p>	<p>Ropes that are used as work ropes where no fall is expected</p>	<p><b>Static - working rope</b></p>	
<p><b>Ropes dynamic</b></p>	<p>The rope used to catch falls</p>	<p><b>Dynamic - climbing rope</b></p>	
<p><b>Simple ropes</b></p>	<p>Single strand rope, most often with a diameter of 10 – 11 mm. It is marked with the symbol of a number in a circle. Suitable for terrains where there is no danger of the rope being cut on a sharp rock edge, such as artificial walls, cultivated rocks, unsegmented rocks without rock spikes, sharp protrusions, footbridges, etc..</p>		

## Equipment



<p><b>Half ropes</b></p>	<p>Two-strand rope, most often with a diameter of one strand of 8.5 – 9 mm. It is indicated by the fraction symbol <math>\frac{1}{2}</math> in a circle. Both strands can be guided separately, so that each strand passes through its progressive safety carabiners.</p>	
<p><b>Double ropes</b></p>	<p>Two-strand rope, most often with a diameter of one strand of 8.0 – 8.5 mm. It is marked with the symbol of two crossed circles, under which is the inscription Twin. Both strands must be clicked together into the progressive belay carabiner, and therefore participate together in one moment in arresting the fall.</p>	
<p><b>Type B carabiners</b></p>	<p>Also marked "D", "symmetrical/asymmetrical D" Carabiner suitable, for example, as a progressive belay.</p>	



## Equipment



<p><b>Carbines HMS H</b></p>	<p>A carabiner, usually pear-shaped, used for belaying with a half boat loop.</p>	
<p><b>Úvazek</b></p>	<p><b>Type A: Full body for adults ( keeps unconscious person upright)</b></p> <p><b>Type B: Full-body for small persons (as A, but up to 40 kg user weight - "children's")</b></p>	

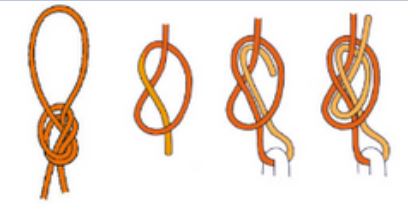
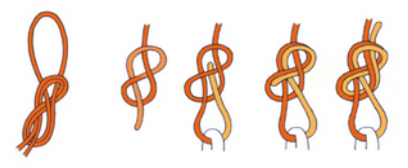
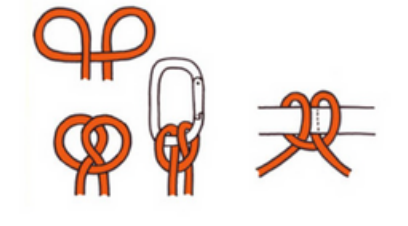
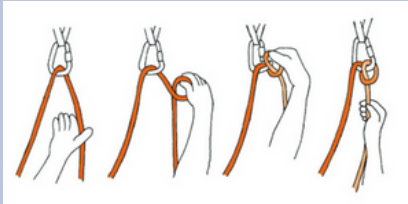
## Equipment



	<p><b>Type C: Sit harness (or also called sitting, consists of a lap belt and thigh loops, keeps the person conscious in a sitting position)</b></p> <p><b>Type D: Chest harness ( use only in combination with sit harness, when used alone within 1 minute will cause injury)</b></p>	
<p><b>Belaying aids</b></p>	<p><b>Compact self braking descender (RIG)</b></p>	

## Knots used for rescue



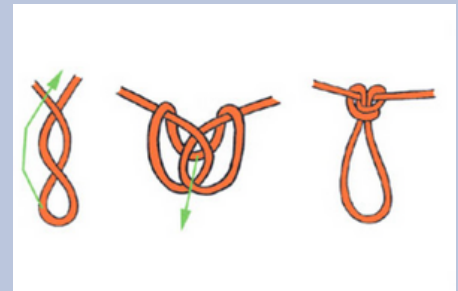
<p><b>Overhand loop</b></p>	<p>A leader knot is the easiest knot to create a loop. Similar to the figure-of-eight knot (of which it is such a "smaller" brother), the loop created by it has a wide range of uses!</p>	
<p><b>Figure 8 loop</b></p>	<p>It is most often used for tying to a rope, anchoring to an anchor point. It is considered the main tying knot.</p>	
<p><b>Clove hitch</b></p>	<p>A loop that contracts under load. It is used to anchor the rope. It is possible to tie it by tying the end of the rope, but it is also possible to tie it uprostřed lana.</p>	
<p><b>Italian hitch</b></p>	<p>It is only used for belaying (belaying method recommended by the UIAA), or also for abseiling in an emergency. The loop does not hold (!), it only inhibits the movement of the rope by friction. Works best on the HMS carbine. Easy to tie with one hand.</p>	

## Knots used for rescue



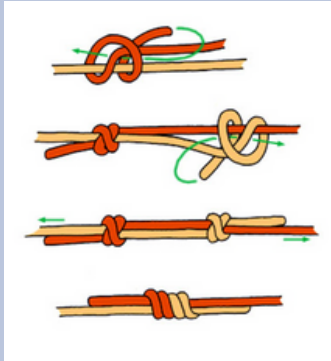
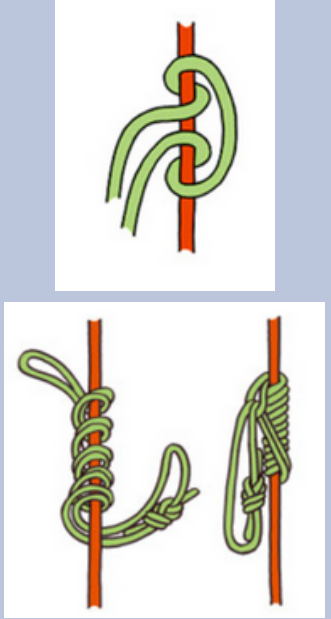
### Butterfly knot

The bow tie is only tied in the middle of the rope. It is used for anchoring the rope, when we assume a load both behind the eye of the loop and also during an anomalous load (i.e. behind both strands of the rope coming out of the knot), and we cannot determine when that load will occur. It is tied only in the middle of the rope. This makes this loop preferable for multiple anchoring of the fixed rope to the securing points (creating the so-called rope railing). An ordinary Leader loop is often used for a similar purpose, but the Butterfly has better parameters compared to it. On the one hand, a smaller loss of the load-bearing capacity of the rope in the knot, and thus greater gentleness to the rope.



## Knots used for rescue



<p><b>Double Fisherman's knot</b></p>	<p>Very good connection for ropes of unequal diameter. For example, two ends of pieces of rope, one thinner and the other thicker, to create a larger eye of the loop (meaning the loop as a securing device, e.g. to wrap around a rock point). long double rope for long abseiling</p>	
<p><b>Prusik knot</b></p>	<p>Self-locking knots that slide when released and snap when loaded. Use as a blocker.</p>	

## Slaňování:



Step	More details	Need equipment
<p>Before abseiling, the person properly anchors the rope along which he/she will abseil</p>	<p>The person properly fastens the prepared rope to the structure of the tower using knots and loops.</p>	<p>Type A sedentary time Static rope</p>
<p>The person is attached to the rope using the HMS carabiner</p>	<p>The person attaches an HMS carabiner to the C eye harness, to which a half-ship knot will be tied. Tests the correctness of the binding.</p>	<p>1x HMS carbine</p>
<p>A person climbs into a window on a training tower.</p>	<p>A person climbs into a window on a training tower. At the same time, he will secure the free end of the rope (pointing downwards) in his hand under the belay device with one hand and slowly sit in the tie until he fully loads it.</p>	

## Slaňování:



<b>Step</b>	<b>More details</b>	<b>Need equipment</b>
<p>The person begins a gradual abseil.</p>	<p>The person will slowly release the rope in the belay river and this will lead to a gradual abseiling. When abseiling, you need to proceed slowly. The new ones are stretched at the knees, slightly straddled (shoulder width) perpendicular to the mat. The person tries to get the upper part of the body as close as possible to the rope above the belay device.</p>	

## Slaňování:



Osoba vyleze na cvičnou věž a slaní se pomocí slaňovací brzdy RIG. Je vybavena úvazkem typu A a karabinou typu HMS se slaňovací brzdou RIG.

Step	More details	Need equipment
Before abseiling, the person properly anchors the rope along which he/she will abseil	The person properly fastens the prepared rope to the structure of the tower using knots and loops.	1x seat belt type A Satic rope
The person is attached to the rope using the abseiling decender RIG	The person attaches the HMS carabiner to the eye harness C, on which they will have the RIG abseil brake attached, into which they will insert the prepared rope.	1x HMS carbine 1x abseiling decender RIG
A person climbs into a window on a training tower.	A person climbs into a window on a training tower. At the same time, he will secure the free end of the rope (pointing downwards) in his hand under the belay device with one hand and slowly sit in the tie until he fully loads it.	



## Slaňování:



<b>Step</b>	<b>More details</b>	<b>Need equipment</b>
<p>The person begins a gradual abseil.</p>	<p>The person will slowly release the rope in the belay device and this will lead to a gradual abseiling. When abseiling, you need to proceed slowly. The legs are stretched at the knees, slightly apart (shoulder width) perpendicular to the mat. The person tries to get the upper part of the body as close as possible to the rope above the belay device.</p>	





## Adult CPR with AED (Adult Cardio-pulmonal resuscitation with Automated external defibrillation)

Step	More details	Need equipment	Photo
1.Check-up the safety	Look around you. Check if you are in danger. If so, try to remove it.		
2.Check-up the consciousness	Speak to the victim loudly. If he or she is not reacting, shake his or her shoulders.		
3.Check-up the breathing	If the victim is not conscious, we perform a head tilt, "the chin-forehead manoeuvre" and we watch, hear and feel if the victim is breathing. Breathing is controlled for a maximum of 10 seconds.		


## Adult CPR with AED (Adult Cardio-pulmonary resuscitation with Automated external defibrillation)



Step	More details	Need equipment	Photo
4.Call for help	We use the phone and call the emergency line 112. We activate the loudspeaker. If we do not have a phone with us, we ask another person for help.	Mobile phone	
5.Start CPR	We apply 30 chest compressions in the middle of the chest with two hands, we push 5 or 6 cm deep at a frequency 100 to 120 pushes per minute (song "Staying Alive"). After 30 compressions, we apply 2 rescue breaths using a resuscitation mask. The frequency of compression to inhalation is 30:2. If there are two rescuers present, they can use the AMBU bag (BMV) in the position behind the head, and the other on the side near the chest. If 2 rescuers are resuscitating, they exchange in chest compressions every 2 minutes.	AMBU Bag, MP3 song Staying Alive (for teaching CPR)	






## Adult CPR with AED (Adult Cardio-pulmonal resuscitation with Automated external defibrillation)

Step	More details	Need equipment	Photo
6.Using AED	<p>If an AED (automatic external defibrillator) is present, the rescuer will use it as soon as possible. It is convenient if one rescuer performs CPR and the other retrieves and turns on the AED. After switching on, rescuers are guided by voice instructions and pictograms. They continue to perform resuscitation using an AED until emergency services arrive.</p>	AED (train equipment)	


## Recovery position



Step	More details	Need equipment	Photo
1.Check-up the safety	Look around you. Check if you are in danger. If so, try to remove it.	AED (train equipment)	
2.Check-up the consciousness	Speak to the victim loudly. If he or she is not reacting, shake his or her shoulders.		
3.Check-up the breathing	If the victim is not conscious, we perform a head tilt, "the chin-forehead manoeuvre" and we watch, hear and feel if the victim is breathing. Breathing is controlled for a maximum of 10 seconds.		
4.Call for help	We use the phone and call the emergency line 112. We activate the loudspeaker. If we do not have a phone with us, we ask another person for help.	Mobile phone	




## Recovery position



Step	More details	Need equipment	Photo
5.Placing in a recovery position	If it is clear that the victim is breathing and it was not a serious injury, a fall from a height or an accident, we place the victim in a recovery position. We always turn the person towards us. It is important that the position is sideways. In this position, the head must be bent so that the vomit can come out.	Blanket	
6.Constant breathing control	We check the victim at least once in a minute to make sure he hasn't stopped breathing until the emergency services arrive.		



## Stopping of massive bleeding

Step	More details	Need equipment	Photo
1. Check-up the safety	Look around you. Check if you are in danger. If so, try to remove it. Use gloves.	Nitrile gloves	
2. Look for a massive bleeding or wound	Find where the blood is coming out or splattering.		
3. Stop the bleeding	Use the pressure bandage. If there is a lot of bleeding on the limb, you can use a tourniquet (ready or improvised). Write down the time of loading the tourniquet. The treatment is correct when the blood stops flowing.		
4. Call for help	We use the phone and call the emergency line 112. We activate the loudspeaker. If we do not have a phone with us, we ask another person for help.		

## Stopping of massive bleeding



<b>Step</b>	<b>More details</b>	<b>Need equipment</b>	<b>Photo</b>
5. Anti-shock treatment	Still talk to a victim. Secure warmth. Check consciousness and breathing.		



## Fixation of the spine

Step	More details	Need equipment
<p>1. Check-up the safety and using of gloves</p>	<p>Look around you. Check if you are in danger. If so, try to remove it. Use gloves.</p>	<p>Nitrile gloves</p>
<p>2. Evaluation of the mechanism and fixation by hand</p>	<p>If there was a fall from a height, a possible injury to the head and spine or an accident at speed, we assume a fracture of the skull or vertebrae. Therefore, if the person is conscious, we immediately grab his head with our hands.</p>	
<p>3. Use of a cervical fixation collar</p>	<p>One rescuer still fixes the head with both hands, the other carefully applies the fixation plastic collar and adjusts the collar to the correct size.</p>	<p>Neck collars</p>
<p>4. Transport using a board</p>	<p>Place the victim on the board by tilting the board and sliding it under the victim. We still fix the victim by the head. We make as few movements as possible.</p>	<p>Blackboard(s) with head immobilizer and X-straps, neck collars</p>



## Fixation of the spine

<b>Step</b>	<b>More details</b>	<b>Need equipment</b>
5.Headblocks application	We use headblocks and fix velcrostraps. Headblocks will replace fixing with hands.	Blackboard(s) with head immobilizer and X-straps, neck collars
6.Using X-Straps	We fasten the X-Straps to the board and firmly fix the victim to the board.	Blackboard(s) with head immobilizer and X-straps, neck collars



## Organisations:

1. Slovak Red Cross, Regional office Zilina;
2. Fire and Rescue Department (Lithuania);
3. Lithuanian Red Cross

## Websites:

1. <https://play.google.com/store/apps/details?id=cz.appkee.metodikavvh&hl=cs&gl=US&pli=1>
2. <https://lt72.lt/>
3. <https://ugm.lrv.lt/lt/mokymai/mokymo-priemones-1>
4. <https://pagd.lrv.lt/>
5. <https://www.cprguidelines.eu/assets/guidelines/European-Resuscitation-Council-Guidelines-2021-Ba.pdf>
6. <https://www.cprguidelines.eu/assets/guidelines/European-Resuscitation-Council-Guidelines-2021-Fi.pdf>
7. <https://www.youtube.com/@UGmokykla>
8. <https://www.youtube.com/@RescueMethods>
9. <https://www.youtube.com/@royallifesavingsocietywa/videos>
10. <https://www.youtube.com/@LIFEGUARD2013/videos>