

# Para-Rowing Capsize Recovery Drill & Safety Guidance

Athens, Greece, February 2019







## AIMS

- To provide a model for NF's to use when running their own Para-Rowing capsizes & recovery training sessions

## OBJECTIVES

- Explain the protocols and rationale for Para-Rowing capsizes and recovery training
- Describe how you will structure a capsize and recovery training session
- Demonstrate the elements of a Para-Rowing specific capsize and recovery training session

## OUTCOMES

- Organise and deliver Para-rowing capsizes and recovery training for your NF using this model in which athletes and coaches will learn;
- How to respond to a capsize
- How to assist others who capsize
- Advice for club and event organisers (Umpires, Safety Personnel)

- Quiet room for the delivery of the introductory theory session which has sufficient space and seating for the all participants
- Computer data projector which can play video and PowerPoint presentation
- Flip Chart, easel - A1pad, and pens
- Training guide
- Clean PR1 single scull with fixed seat and pontoon floats
- Clean set of sculling blades
- Trestles
- Swimming pool (or safe open water space) with a minimum depth of 1.3m (4 feet)
- **Timings: Theory : 1hour 15- 25mins**



- See Tutor Notes
- Compliance with FISA APPENDIX 18 - Para Rowing Competition Regulations Event Regulations and/or Departures from the FISA Rules of Racing -  
[http://www.worldrowing.com/mm//Document/General/General/13/08/95/Appendix18-ParaCompetition2018update\\_Neutral.pdf](http://www.worldrowing.com/mm//Document/General/General/13/08/95/Appendix18-ParaCompetition2018update_Neutral.pdf)
- Strapping
- Entry to boat Checklist

# Strapping



Aids sold individually



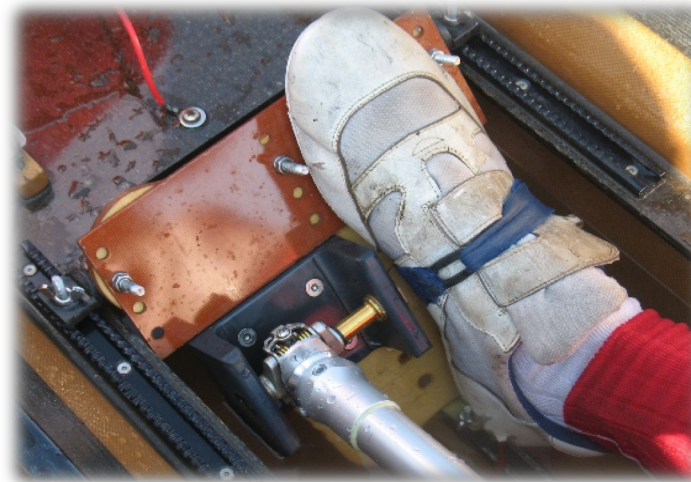
Strapping should be made of a material which will not induce pressure marking or chaffing

HANDS	must be quick mouth release
TRUNK	must be ONE DIRECTION quick release
THIGHS	must be ONE DIRECTION quick release

**IMPORTANT:**  
FISA recommends that all chest, leg and hand strapping is evaluated for safety by the rower before using on open water, by conducting a controlled capsized drill in a swimming pool.



# Foot-stretcher with cord release / Prosthetic release

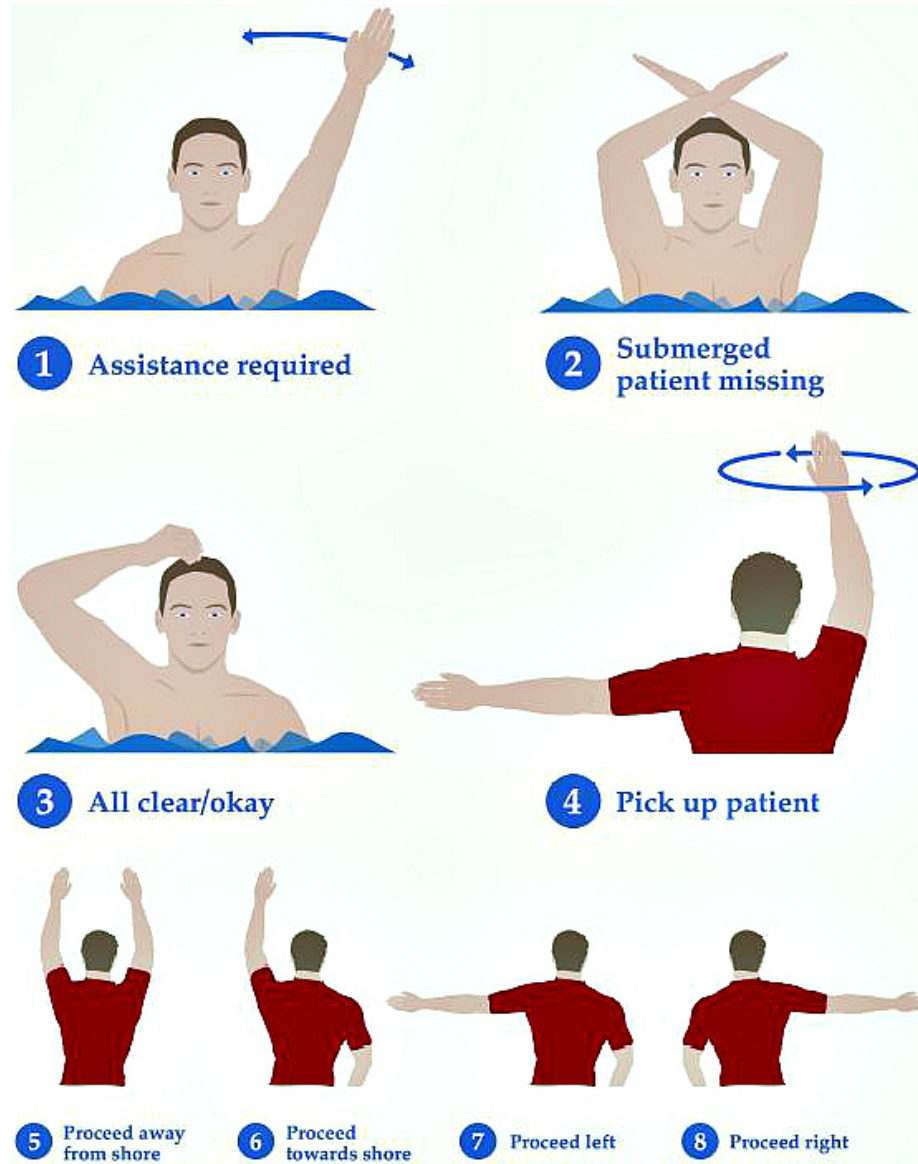


# Lifejackets for PR1, PR2 Athletes





# Signage



Agree signage between all taking part in capsized drill in case of emergency

# Video & Audio Shoot Sequence







The following information is taken from British Rowing's

*'Adaptive Rowing Safety Guidance to Event Organisers'* - This document highlights safety advice for the Organising Committees of British Rowing Para-Rowing events.

<https://www.britishrowing.org/wp-content/uploads/2017/04/Adaptive-Rowing-Safety-Guidance-For-Event-Organisers-2.pdf>

*'ROWSAFE'* - a simple and direct web-enabled directory, providing safety advice to rowers, clubs, events and everyone else associated with the sport of rowing.

<https://www.britishrowing.org/wp-content/uploads/2018/04/Row-Safe-April-2018-Chp-6.pdf>



- Provides information that may be useful to ensure safe participation in rowing:
  - Pertinent Medical History
  - Confirmation that the rower has evaluated the safety of equipment and where appropriate carried out a controlled capsize drill
  - Additional Assistance



# Event Risk Assessment and Health & Safety Emergency Response Plan



Provides information that may be useful to ensure safe participation in rowing:

- See Access Audit module - [https://www.britishrowing.org/wp-content/uploads/2015/10/ROWING-CLUB\\_adaptive\\_access\\_audit.pdf](https://www.britishrowing.org/wp-content/uploads/2015/10/ROWING-CLUB_adaptive_access_audit.pdf)
- Process for summoning assistance in an emergency
- Location of the event, including postcode and other relevant location information, and directions for emergency services
- Plan of the event showing all emergency access points, with postcodes, and grid references where possible to assist emergency services
- Emergency phone numbers and the location of the nearest landline telephone if available
- Number and location of First Aid Points and, if available, the nearest Automatic External Defibrillator (AED)
- How injured persons will be transported to the First Aid Point or ambulance. Number and appropriate type of safety boats

# Embarkation and Return of Para Boats

- Pontoons and landing stages are preferred to launching off steps, slipways or the bank as it is easier to transfer from wheelchair to boat and back
- Access ramps at appropriate gradient (1:12 recommended) for manual wheelchairs
- Embarkation pontoons and rafts are stable for wheelchair users
- Ensure that when transferring to the boat, they avoid sitting on hard surfaces for prolonged periods of time. Care should be taken to avoid sharp projections that may cut or mark during transfer, e.g. riggers. Protect heels from pressure marking and ensure that they use cushions/matting during transfer to pontoon/raft
- Dedicated boat launch and landing area for Para-Rowers, as they may need more time and space for embarkation and return, particularly if they have to rely on support from their coaches or helpers, etc



- Para-Rowers should be able to demonstrate at embarkation point that they are able to release straps in a safe manner
- All Safety Teams at events should be aware that some Para-Rowers will have compromised sitting balance in the PR1 boat classes and therefore the risk of capsize is heightened
- Umpires/Marshalls to carry out checks to ensure correct fixing of pontoon floats and ensure that athlete is able to demonstrate safe release of straps before leaving embarkation pontoons
- Understand degree of difficulty in up-righting an inverted boat with rowers who are strapped into seats
- Understand the method of release for rowing straps and carry a safety knife, so if necessary they can cut straps at the attachment point to seat frame
- Those with a limited range of movement in their ankles or wear a prosthesis should ensure that if they have foot stretchers that rely on heel-restraints as a method of release in the event of a capsize, they should be able to demonstrate ability to safely remove their feet from the boat



# Cold Water Immersion (Hypothermia)

Increased risk for rowers who have thermoregulation dysfunction

- i.e. spinal cord injury - Poikilothermic (when the body assumes the temperature of its environment) in a very short period of time, where safe and expedient removal from the water is essential



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Know how to recover people from the  
water  
water

## Autonomic Dysreflexia

**CLINICAL EMERGENCY:** spinal cord injuries above T6

**LIFE THREATENING:** if not immediately treated

### SYMPTOMS

- Increased Blood Pressure
- Pounding Headache
- Profuse Sweating
- Nasal Congestion
- Bradycardia
- Flushed, Clammy, Goosebumps

### CAUSES

- Bladder (Distention/UTI)
- Any PAIN Causing Discomfort
- Bowel Impaction
- Pressure Sore or Skin Burns
- Fracture
- Ingrown Toenails

# Medical Alert

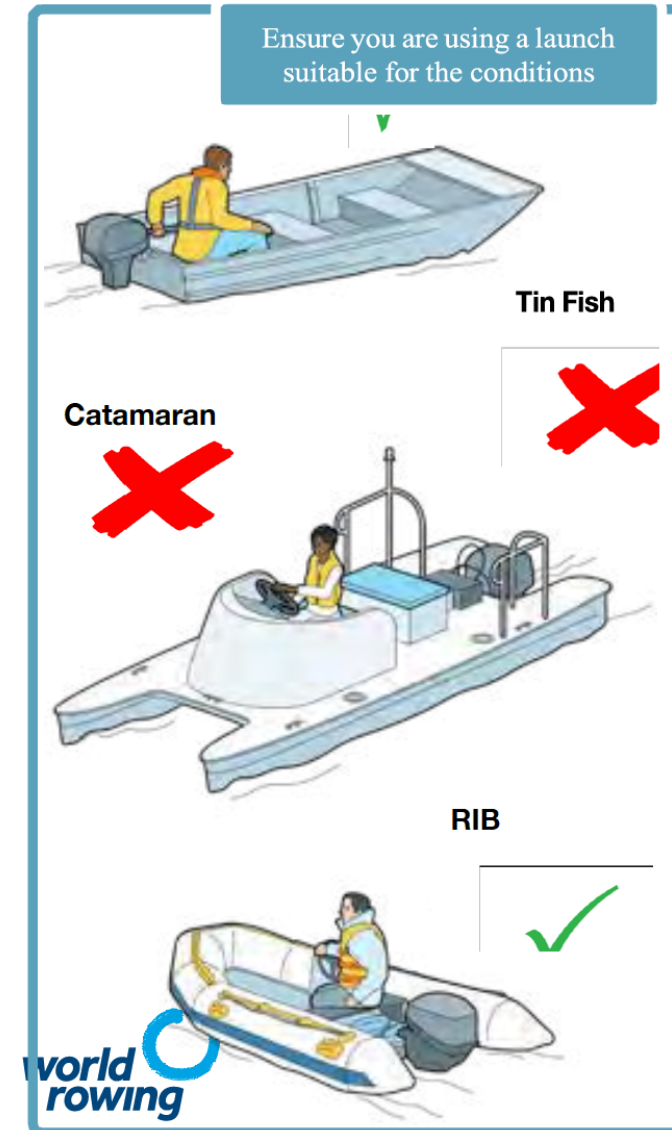


- This is a sudden increase in blood pressure and corresponding decrease in heart rate. The condition occurs in rowers with complete spinal injuries at T6 and above. It can occur anywhere within the rowing environment but is of heightened concern on water
- Para-Rowers predisposed to dysreflexic episodes should either carry relevant medication in a waterproof chest pocket or have declared the cause of such episodes during classification
- The rower will be aware of symptoms together with coach and use some form of signing to Rescue boat
- If a rower suffers from Autonomic Dysreflexia, the emergency response is to raise the head above their knees (preferably in a sitting position). This position naturally reduces blood pressure. Look for the causes and seek medical help



# Rescue/Safety Boat

- Appropriate rescue launch with low freeboard and/or drop-bow for safe rescue of adaptive rowers who are likely to have reduced mobility or muscle weakness in the lower extremities
- Sufficiently stable to allow safe recovery of people from the water
- Should have naturally buoyant properties ('tin fish' not appropriate)
- Low sides to make it easier getting people out of the water
- Fitted with a propeller guard to protect people in the water
- Quick and easy to manoeuvre with low wash characteristics
- Enough space to carry injured persons lying down to safety
- Carry safety equipment with the addition of a 'horseshoe life ring' and 'safety knife'
- Well maintained, with a recorded maintenance and service history
- Positioned such that they stay close to the competitors and are strategically located along the event course with radio links
- Enough capable crew to rescue a potentially uncooperative casualty
- In addition to the driver, each rescue boat should have at least one crew member and together they should be able to rescue a rower who cannot release the straps. This individual may need to enter the water



# Rescue/Safety Boat Kit

- Event organisers should ensure that there are an adequate number of safety boats with recommended launch rescue kit
- Each safety team should keep good communication using radios and/or mobile phones



# Risk assessment template - completed example

Author		Activity	
Rowing club, location or event		Date	Revision

No.	Hazardous event	Adaptive group at risk (use if appropriate)	Potential consequences	Risk assessment			Reduce likelihood of risk		Mitigate the consequences		Action Parties				
				Severity (1-5)	Likelihood (A-E)	Risk (H,M,L)	Barriers	Action to maintain barriers	Barriers	Action to maintain barriers					
	Capsize														
0	All		Injury	2	D	Mod	Circulation pattern and boating restrictions during bad weather	Marshals present at all times	Health, safety & emergency response plan	Adequate rescue launch, medical & first aid cover during training and regatta					
	Capsize during practice or racing	PHYSICAL - prosthetics, orthotics, hand, leg, trunk straps	Entrapment under water	4	D	Int	Modification to footstraps to facilitate prosthetics. Use of hand straps to hold oar/skill	Check equipment at boating pontoons to ensure rowers are compliant with British Rowing adaptive safety guidelines. All hand straps must be able to be released immediately by quick mouth action. All leg/trunk straps must be single-point release with no mechanical buckles and be released on the same side and in the same manner and direction	Health, safety & emergency response plan	Ensure that umpires, control commission, marshals and the safety team are aware of regulations. Appropriate rescue launch with low freeboard and/or drop-bow for safe rescue of rowers with reduced mobility in lower extremities					
	Capsize during practice or racing	VISUAL - use of zero-vision or light eliminating eyewear	Disorientation, potential to induce panic	3	B	Low	Increased risk with visual impaired rowers in 'small boats' (stability) inability to see water surface debris or hazards.	Encourage all visually impaired rowers to conduct controlled capsize drills with zero-vision eyewear	Health, safety & emergency response plan	Inform safety team that visually impaired rowers are taking part in training/racing					
	Capsize during practice or racing	INTELLECTUAL	Possible unpredictable response in the event of a capsize, potential to induce panic	3	B	Low	Attaching to start in adverse weather conditions	Establish with coach of ID rowers can swim or have appropriate buoyancy aid/lifejacket	Health, safety & emergency response plan	Inform safety team that rowers with an intellectual disability are on the water					



No.	Hazardous event	Adaptive group at risk (use if appropriate)	Potential consequences	Risk assessment			Reduce likelihood of risk		Mitigate the consequences		Action Parties				
				Severity (1-5)	Likelihood (A-E)	Risk (H,M,L)	Barriers	Action to maintain barriers	Barriers	Action to maintain barriers					
	Cold water immersion & Hypothermia														
	Capsize during practice or racing	PHYSICAL	Increased risk for rowers who have thermoregulation dysfunction i.e. spinal cord injury. These rowers are unable to shiver to conserve heat at or below their injury level. Individuals with a complete SCI at T6 and above are at particular risk and can become poikilothermic (when the body assumes the temperature of its environment). Rowers with Down's syndrome are also at increased risk of hypothermia.	2	B	Mod	Important for rowers who rely on lateral stability in the form of pontoon floats, to ensure that they have adequate buoyancy and are attached correctly	The provision of stabilising pontoons for AS and TA rowers, provides a more stable platform, by providing additional lateral stability for rowing shells. The pontoons must be fixed in position so that when the rower is seated in the balanced boat, both pontoons are horizontal and, at a minimum, touch the water	Health, safety & emergency response plan	Ensure that umpires, control commission, marshals and the safety team are aware of thermoregulation issues within adaptive rowing. Appropriate rescue launch with low freeboard and/or drop-bow for safe rescue of rowers with reduced mobility or muscle weakness in lower extremities. Safe and expedient removal from the water essential					
	Hypothermia														
	Resists environment, boating pontoons, start	PHYSICAL	Increased risk with rowers who have thermoregulation dysfunction i.e. spinal cord injury. They can not sweat in order to dissipate heat at or below their injury level. Individuals with a complete SCI at T6 and above are at particular risk and can become poikilothermic (when the body assumes the temperature of its environment). Rowers with Down's syndrome are also at increased risk of hypothermia.	2	C	Mod	Prolonged waiting periods on boating pontoons. Waiting at the start for races during hot weather	Consider scheduling adaptive races outside the hottest times of the day. Identify rest areas that are shaded. Encourage rowers to keep hydrated and wear appropriate clothing, including the use of 'ice socks'	Health, safety & emergency response plan	Ensure that umpires, control commission, marshals and the safety team are aware of thermoregulation issues within adaptive rowing					
	Atlanto-Axial Instability (AAI)														
	Capsize during practice or racing	PHYSICAL/ID	Increased risk with rowers who have Down's syndrome, Atlanto-Axial Instability (AAI) characterized by excessive movement at the junction between the atlas (C1) and axis (C2) as a result of either a bony or ligamentous abnormality. This would be a potential for concern in the event of a capsize and subsequent rescue	2	B	Mod	Unstable boats without supplementary flotation - pontoon floats	Pre-activity screening (classification) to determine risk. There should be no sign of progressive myopathy (a disease in which the muscle fibres do not function for any number of reasons, resulting in muscular weakness). Individuals should have good head / neck muscular control. If any of the symptoms are present, be cautious and refer the rower to their doctor to see if there are any medical contra-indications for taking part in rowing activities.	Health, safety & emergency response plan	Ensure that rower has appropriate documentation including classification to determine that there are no medical contra-indications for taking part in rowing activities.					

No.	Hazardous event	Adaptive group at risk (use if appropriate)	Potential consequences	Risk assessment			Reduce likelihood of risk		Mitigate the consequences		Action Parties				
				Severity (1-5)	Likelihood (A-E)	Risk (H,M,L)	Barriers	Action to maintain barriers	Barriers	Action to maintain barriers					
	Autonomic Dysreflexia														
	Can occur anywhere within the rowing environment, is of heightened concern on water	PHYSICAL	<p>Sudden increase in blood pressure and corresponding decrease in heart rate. Occurs in rowers with complete spinal injuries at T6 and above. Common sources are:</p> <ol style="list-style-type: none"> <li>1. A full or distended bladder (most common source of AD)</li> <li>2. Bladder related causes such as bladder infection, sores, or stones</li> <li>3. A full or impacted rectum (including constipation)</li> <li>4. Pressure sores</li> <li>5. Tight clothing, irritating wrinkles or folds, or creasing underwear or pants.</li> <li>6. An injury below the spinal cord injury such as a broken ankle, cut or scrape</li> <li>7. Anything that produces discomfort below the level of injury</li> </ol>	5	B	Int		Require 'declaration of medical condition'. This will be declared during classification. A history of dysreflexia should be detailed on this form. Should a rower be predisposed to dysreflexia, they should either carry relevant medication in a waterproof chest pocket or with coach. The rower will be aware of symptoms together with coach and use some form of stenting to rescue boat. Encourage SCI rowers at risk to empty bladder prior to training/competition	Health, safety & emergency response plan. If a rower suffers AD, the emergency response is to raise the head above their knees (preferably in a sitting position). This position naturally reduces blood pressure. Look for the causes of AD and seek medical help	Ensure that all adaptive rowers have been classified in accordance with British Rowing classification procedures which includes a 'declaration of medical conditions'					
	Pressure sores, cuts & bruises														
	Of particular concern with rowers who have a loss of sensation in part of their body. Those with spinal cord injuries are at particular risk	PHYSICAL	Rowing is one of the most dynamic of all seated sports and individuals with spinal cord injuries in particular are susceptible to tissue pressure sores. Many rowers will have his or her own preferred method of skin protection that the coach should attempt to utilize in and out of the boat	4	C	Sub	Transferring to boat, avoid sitting on hard surface for prolonged periods or sharp projections that cut or mark, e.g. rippers. Protect heels from pressure marking	Determine during classification rowers predisposition to developing pressure sores. Boat marshals to inspect pontoons for any sharp projections	Health, safety & emergency response plan	Ensure that all adaptive rowers have been classified in accordance with British Rowing classification procedures which includes a 'declaration of medical conditions'					
	Trip hazards														
	Can occur anywhere within the rowing environment. Increased risk with rowers who are visually impaired and rowers with reduced mobility	All	Trip hazards for visually impaired rowers, wheelchair users, rowers with amputations on crutches	2	B	Mod	General hazards within rowing environment	Event audit should be carried out to determine potential hazards, such as steps, ground obstacles in boathouse (seats, rippers)	Health, safety & emergency response plan. Complete access audit to identify potential hazards. It should follow a logical sequential journey following how members enter, navigate, use and leave the club; starting from the club perimeter, through car parking area, pedestrian routes, building entrances, recreation areas, information, delivery, horizontal and vertical circulation routes, internal spaces, facilities and exits.	All clubs wishing to host adaptive events should identify potential hazards by using approved access audit which includes: <ol style="list-style-type: none"> <li>1. Approach routes</li> <li>2. Car Parking</li> <li>3. Footpaths</li> <li>4. Stairs</li> <li>5. Access to boathouse</li> <li>6. Access to water</li> <li>7. Club – internal</li> <li>8. Showers/changing facilities</li> </ol>					



Thank you !