ARGONAUT ROWING CLUB - Safety

The Argonaut Rowing Club is committed to the safety of its members, the Western Beaches and the on-water community at all times. While rowing is a safe sport when conducted with knowledge and consideration for the risks involved, it is important to recognize that weather and water conditions can introduce significant hazards, especially electrical storms and cold water, and that collisions may result in personal injury.

This policy is designed to maximize safety for everyone by explaining rules, policies and procedures. All club members are responsible for ensuring they familiarize themselves with, and abide by, ARC safety rules and procedures. Nothing in this document in any way limits an individual's responsibility for assessing his or her personal skills and for the outcome of his or her decisions and actions.

Each member of ARC as a member of Rowing Canada Aviron (RCA) is also responsible under their policies for knowing and adhering to the Transport Canada regulations, especially those applicable to rowing. The ARC safety policy, RCA policies and Transport Canada regulations affect all boats; club or private, singles or crew and shells or motorised coach boats.

For the purpose of this document, the terms coach boat and safety boat are used interchangeably and the phrase “member of the crew” will include coaches and other occupants of coach boats in addition to rowers and coxswains.

These safety procedures, rules and guidelines go hand in hand with the Argonaut Rowing Club Rules.

In case of an emergency

Emergency phone numbers are posted by each phone in the club building. They are not to be removed. If calling 911 from a cell phone ensure you provide a clear description of the location with reference to landmarks on the lakeshore.

In the event of an incident, the first priority is the safety of those involved and those coming to their aid. Depending on the situation, the need for assistance and the availability of help, responsibility for decision-making will be as follows:

1. 911 Emergency Services or Harbor Police (if contacted)
2. Parents/emergency contact
3. Head Coach and/or Club Official
4. Coach
5. Crew captain

All accidents, events and damage MUST be reported. The coach or crew captain must inform:

- Parents/emergency contact as appropriate
- Head Coach
- Coach
- Membership Director or Captain

In addition, in the event of an accident involving injury or property damage, the RCA National Office must be notified in writing immediately by an officer of the club under their insurance policy covering clubs and members. An RCA incident report form should be completed by those involved in the accident and filed with the ARC Safety Director. The Safety Director will forward the report to RCA.

Crew member overboard

1. The coxswain (bow seat in coxless boats) gives the command to stop rowing and then to hold water.
2. The stroke removes his/her oar and directs, but does not throw it, to the person in the water.
3. The crew backs the boat to the person in the water.
4. The coxswain gets hold of the person or lets him/her grasp a rigger. Another rower may be required to enter the water to assist with first aid. Generally, it should be the person who was seated in front or behind the rower who is now in the water.
5. If the launch is near do not attempt to bring the person aboard the rowing shell. Instead, they should be brought into the coach boat/safety boat.

Rower unconscious

1. If a rower has lost consciousness in the water, support him/her until a rescue craft arrives. If no rescue craft is at hand, help him/her to the bank as fast as possible accompanied by the rowing shell. It is always preferable to stay with the boat.
2. If a rower has lost consciousness while in the boat support him/her until a rescue craft arrives. If no rescue craft is at hand, proceed to the bank and summon help as fast as possible.
3. If necessary, resuscitation should be applied immediately, even while the rower is still in the water. An ambulance should be summoned by the quickest method available.

Management of hypothermia and heat stroke are described in the Appendices.

Break-up or sinking

1. The crew should remain in a group, using PFD's and oars as additional floatation devices.
2. No one should leave the group, shell, or other flotation device until they are at shore or at the rescue boat. Crews may leave the shell if they can touch bottom and wade to shore, but this should only be done as a group.
3. Use the buddy system, distribute crew evenly on the remains of the hull, encourage one another, and share flotation devices. Buddies should hold on to each other until they are rescued. If the water is cold, the rowers should try to get as much of their body out of the water as possible by draping themselves over the remaining hull.
4. Account for all crewmembers; keep numbering off.
5. NO ONE SHOULD ATTEMPT TO SWIM TO SHORE. Visual perception is dramatically altered in the water and distance seems much shorter than what it really is. Even at the ARC in cold water in

the spring and in the late autumn the distance from the break wall to the shore is, in many cases, too far to swim. Await the arrival of the rescue launch, unless the crew can touch bottom and safely wade into shore.

Transport Canada Regulations

All members should be aware of and follow the Transport Canada Regulations for Rowing Shells, also described in a much shorter version by the Canadian Coast Guard Safety Notice . All the club members, including those in privately owned boats are individually responsible for following these rules, and the club will in no way be liable for the members choosing not to do so.

For convenience, here is the Coast Guard Safety Notice. Note, for example, that a coach boat following an eight and a coxed four only needs to carry 9 extra PFDs, rather than 14.

SAFETY EQUIPMENT REQUIREMENTS
Unless exempted as described below, rowing shells are required to carry:

- one-Canadian-approved personal floatation device (PFD) or lifejackets of appropriate size for each person on board;
- one sound signalling device;
- navigation lights that meet the applicable standards set out in the Collision Regulations if the pleasure craft is operated after sunset and before sunrise or in periods of restricted visibility.

EXEMPTION
A rowing shell is not required to carry personal protection equipment, boat safety equipment and distress equipment if:

- it is attended by a safety craft carrying a personal flotation device (PFD) or lifejacket of appropriate size for each member of the crew of the largest vessel being attended (in addition to its own safety equipment) or;
- the rowing shell carries a PFD or lifejacket of appropriate size for each member of the crew, a sound signalling device and, if it is operated before sunrise or after sunset, a watertight flashlight or;
- if it is competing or training during a provincially, nationally or internationally sanctioned regatta or competition or is engaged in training at the venue at which such a regatta or competition is taking place.

Procedures and equipment

1. Rowing shells and coach boats rowing before a sunrise or after a sunset must display a white light on the bow, and red light on the stern. The light needs to be at least 15cm from the surface of the water and bright enough to be seen from the distance of at least 500m (25 strokes to collision). The Rowing Committee reserves the right to deem a light inadequate and stop the boats from getting on the water until adequate illumination is provided.

2. Life Jackets, First aid kits and emergency equipment (thermal blankets, buoy and line) are stored in the boat bays and club office. They must be returned after using. Ensuring they are fully stocked and in good repair is the responsibility of the Rowing Coordinator and Membership/Safety Director.
3. The Head and program coaches are responsible for assessing the weather and water conditions and determining the docks status. Regardless, all the coaches and athletes should inform themselves of the forecast weather before the row. Some of the conditions that would lead to the closing of the docks (dock status red) are:
    a. Thunder and lightning in the area within the past 30 minutes.
    b. High winds (coach's discretion, but it could be as low as 20km/h that trigger this)
    c. High waves
    d. Low visibility
4. Even without declaring the docks closed, the Head or program coaches can stop a crew from going out if they determine that the weather and water conditions are beyond the size of the boat or the experience of the crew.
5. In order for the rowing shell to be considered safe, it must have:
    a. A regulation bow ball (white, rubber, no less than 4cm in diameter)
    b. Shoe safety straps and heel tie downs that conform to RCA's Rules of Racing
    c. Correct lighting if rowed before sunrise or after sunset
    d. Appropriate oars and riggers
    e. Vent covers
    f. A fin
    g. A working rudder (with an exception of 1x, 2x and possibly a 4x)
    h. Extra safety equipment as appropriate (e.g., PFDs, whistle, etc.)

Guidance

All Club directors, coaches and crew captains must make sure their crews are familiar with the safety policies and the water course. At the beginning of the season

- crews should identify who on the crew (if anyone) is capable of administering CPR or other First-Aid;
- crews should confirm that all members can swim;
- crews should practice accident responses

On the dock

1. All gear and equipment should be removed from the docks as quickly as possible when launching and following a practice. Oars, when not in the boat house, or an oar lock, should be hung on the racks between the two singles bays and should not be placed on the surface on the dock. Oars, clothing and other equipment left on the dock constitute a hazard and should be stored off the dock or taken in the boat. Shoes should NOT be left on the dock in the path of boats being carried to and from the water.
2. If the crew status requires a coach boat, the coach boat must be ready to launch before such crews leave the dock.
3. A properly equipped safety boat must be available at the dock or on the water at all times.
4. PFD's must be returned to the boathouse and stored appropriately so that they will dry and not be damaged.

Guidelines and suggestions for staying safe on the water

1. Dress appropriately for weather conditions and carry water.
2. Maintain a clear sight line and check course regularly
3. Row at speeds appropriate to traffic, course, visibility and crew skill
4. Practice emergency stops
5. Be aware of and respect other boat traffic

WEATHER CONDITIONS

No crews may launch from the club docks if the Head Coach determines the docks are closed due to weather conditions. Coaches and athletes should be aware of forecast weather and should decide whether rowers may go out on the water based on safety rules. If safety rules would not be violated then the decision to launch in poor weather should be based on the rowers' capabilities and limitations. Water conditions in the breakwall gaps can be significantly worse than those in front of the dock.

Cold Weather and Water

Hypothermia poses a real and significant risk at various times in the ARC rowing season, in particular when the water temperature is below 10 degrees C. A discussion of causes, effects, prevention and treatment of hypothermia is included in the Rowing Canada Aviron's Level 1 Coaching Manual. A brief overview is found in Appendix 1 of this policy.

Preparation and prevention are essential to protect crews against the effects of cold-water. All persons should wear appropriate protective clothing to allow motion and keep the body dry and insulated against heat loss.

Hot Weather

Hyperthermia, in its advanced state referred to as heat stroke or sunstroke, is an acute condition which occurs when the body produces or absorbs more heat than it can dissipate. It is usually caused by prolonged exposure to high temperatures. The heat-regulating mechanisms of the body eventually become overwhelmed and unable to effectively deal with the heat, causing the body temperature to climb uncontrollably. Hyperthermia is a medical emergency which requires immediate treatment. A description and treatment can be found in Appendix 2.

Preparations and prevention are important in protecting against the effects of heat.

- Protective clothing (e.g., hats.)
- Use of sun block with a high SPF factor.
- Drink plenty of water before, during and after exposure to hot weather.
- Address any symptoms of heat stress immediately.

RCA's official safety guidelines can be downloaded at **www.rowingcanada.org**.

Appendix 1: Hypothermia Symptoms and Treatment

Normal body temperature in humans is 36.8°C (98.2°F). Hypothermia can be divided in three stages of severity.

Stage 1

Body temperature drops by 1-2°C (1.8-3.6°F) below normal temperature (35-37°C or 95-98.6°F). Mild to strong shivering occurs. The victim is unable to perform complex tasks with the hands; the hands become numb. Blood vessels in the outer extremities constrict, lessening heat loss to the outside air. Breathing becomes quick and shallow. Goose bumps form, raising body hair on end in an attempt to create an insulating layer of air around the body (which is of limited use in humans due to lack of sufficient hair, but useful in other species). Often, a person will experience a warm sensation, as if they have recovered, but they are in fact heading into Stage 2. Another test to see if the person is entering stage 2 is if they are unable to touch their thumb with their little finger; this is the first stage of muscles not working.

Stage 2

Body temperature drops by 2-4°C (3.8-7.6°F). Shivering becomes more violent. Muscle mis-coordination becomes apparent. Movements are slow and labored, accompanied by a stumbling pace and mild confusion, although the victim may appear alert. Surface blood vessels contract further as the body focuses its remaining resources on keeping the vital organs warm. The victim becomes pale. Lips, ears, fingers and toes may become blue.

Stage 3

Body temperature drops below approximately 32 °C (89.6 °F). Shivering usually stops. Difficulty speaking, sluggish thinking, and amnesia start to appear; inability to use hands and stumbling is also usually present. Cellular metabolic processes shut down. Below 30 °C (86.0 °F), the exposed skin becomes blue and puffy, muscle coordination becomes very poor, walking becomes almost impossible, and the victim exhibits incoherent/irrational behavior including terminal burrowing or even a stupor. Pulse and respiration rates decrease significantly, but fast heart rates (ventricular tachycardia, atrial fibrillation) can occur. Major organs fail. Clinical death occurs. Because of decreased cellular activity in stage 3 hypothermia, the body will actually take longer to undergo brain death.

Treatment

Treatment for hypothermia consists of drying, sheltering, and gradually warming (making sure to not rub the patient's body, to warm with blankets and, if possible, to transfer your own body heat). While blankets help a person retain body heat, they are not sufficient to treat hypothermia. **It is vital that the core of the body is warmed first or else the cold blood will be forced towards the heart and may cause death.** In the field, a mildly hypothermic person can be effectively rewarmed through close body contact from a companion and by drinking warm, sweet liquids.

Moderate and severe cases of hypothermia require immediate evacuation and treatment in a hospital. In hospital, warming is accomplished by external techniques such as heated blankets for mild hypothermia and by more invasive techniques such as warm fluids injected in the veins or even lavage (washing) of the bladder, stomach, chest and abdominal cavities with warmed fluids for severely hypothermic patients. These patients are at high risk for arrhythmias (irregular heartbeats), and care must be taken to minimize jostling and other disturbances until they have been sufficiently warmed, as these arrhythmias are very difficult to treat while the victim is still cold.

An important tenet of treatment is that a person is not dead until he/she is *warm* and dead. Remarkable accounts of recovery after prolonged cardiac arrest have been reported in patients with hypothermia, like children who have been submerged in cold lakes for more than 15 minutes, being called *mini-hibernation*. It is presumed that this is because the low temperature prevents some of the cellular damage that occurs when blood flow and oxygen are lost for an extended period of time.

Appendix 2: Hyperthermia/ Heat Stroke

One of the body's most important methods of temperature regulation is perspiration. When a body becomes sufficiently dehydrated to prevent the production of sweat this avenue of heat reduction is closed. When the body is no longer capable of sweating core temperature begins to rise swiftly. Victims may become confused, may become hostile, often experience headache, and may seem intoxicated. Blood pressure may drop significantly from dehydration, leading to possible fainting or dizziness, especially if the victim stands suddenly. Heart rate and respiration rate will increase (tachycardia and tachypnea) as blood pressure drops and the heart attempts to supply enough oxygen to the body. The skin will become red as blood vessels dilate in an attempt to increase heat dissipation. The decrease in blood pressure will cause blood vessels to contract as heat stroke progresses, resulting in a pale or bluish skin colour. Complaints of feeling hot may be followed by chills and trembling, as is the case in fever. Some victims, especially young children, may suffer convulsions. Acute dehydration such as that accompanying heat stroke can produce nausea and vomiting; temporary blindness may also be observed. Eventually, as body organs begin to fail, unconsciousness and coma will result.

First aid

Heat stroke is a medical emergency requiring hospitalization, and the local emergency services should be notified as soon as possible.

The body temperature must be lowered immediately. The patient should be moved to a cool area (indoors, or at least in the shade) and clothing removed to promote heat loss (passive cooling). Active cooling methods may be used: The person is bathed in cool water, a hyperthermia vest can be applied, however, wrapping the patient in wet towels or clothes can actually act as insulation and increase the body temperature. Cold compresses to the torso, head, neck, and groin will help cool the victim. A fan may be used to aid in evaporation of the water (evaporative method).

Immersing a patient into a bathtub of cool - but not cold - water (immersion method) is a recognized method of cooling. This method requires the effort of 4-5 persons and the patient should be monitored carefully during the treatment process. This should be avoided for an unconscious patient; if there is no alternative, the patient's head must be held above water. Be careful not to make the water too cold as Immersion in ice or very cold water is dangerous as this may cause vasoconstriction in the skin, preventing heat from escaping the body core.

Hydration is of paramount importance in cooling the patient. This is achieved by drinking water (Oral rehydration). Commercial isotonic drinks may be used as a substitute. Some authoritiesare opposed to giving any fluids, except by emergency personnel. Intravenous hydration (via a drip) is necessary if the patient is confused, unconscious, or unable to tolerate oral fluids.
Alcohol rubs will cause further dehydration and impairment of consciousness and should be avoided. The patient's condition should be reassessed and stabilized by trained medical personnel. The patient's heart rate and breathing should be monitored, and CPR may be necessary if the patient goes into cardiac arrest.

The patient should be placed into the recovery position to ensure that the person's airway remains open.