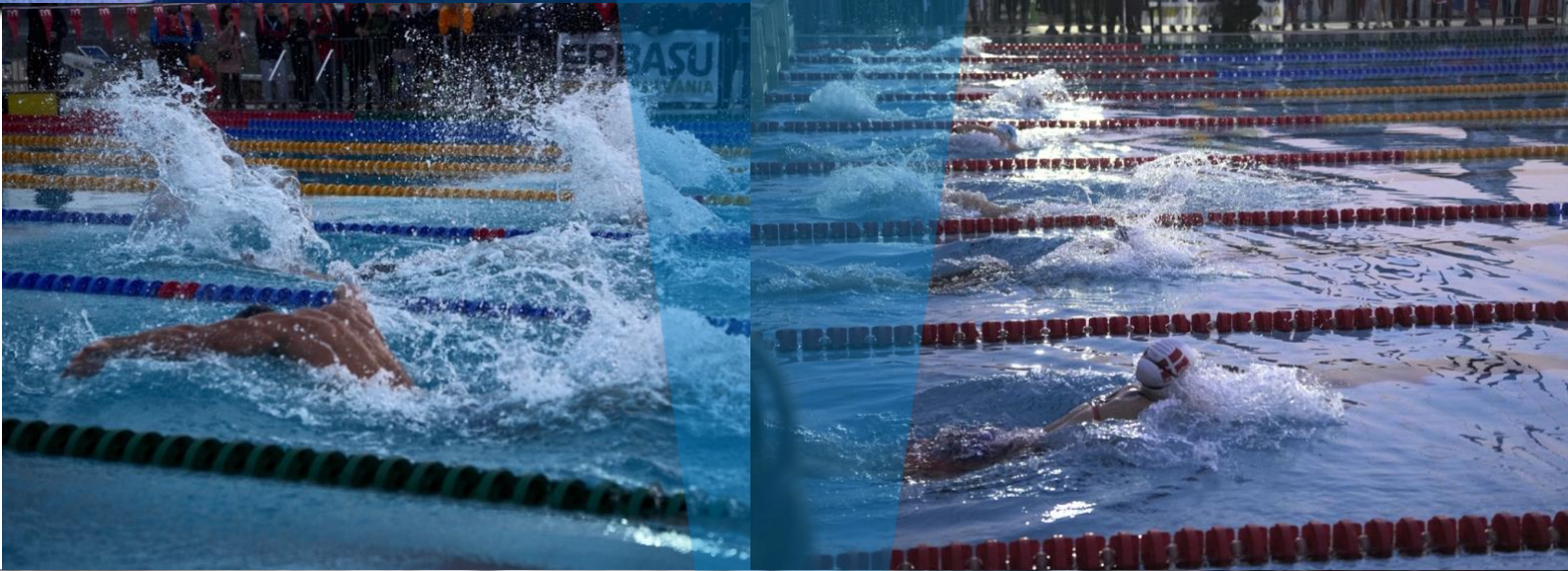


# IISA

INTERNATIONAL  
ICE SWIMMING  
ASSOCIATION



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# ICE SWIMMING MEDICAL & SAFETY GUIDELINES

*For Safety and Integrity in the ICE*

Updated and Effective 1 Nov 2024



# 1. INTRODUCTION

## 1.1. THE SCOPE OF WORLD AQUATICS AND THE IISA

1.1.1. This document represents part of the IISA Safety Rules and working structure. The IISA aims to have ice swimming, as regulated by the IISA, accepted as an aquatic discipline by World Aquatics. The IISA currently covers three categories:

- Open – elite category
- Age group – the equivalent of masters swimming
- Para – para-swimming

1.1.2. Currently, we hold events for all the categories simultaneously. We differentiate the categories at the results and awards.

1.1.3. The initial scope of working with World Aquatics focuses on the elite/open category only. We are happy to collaborate in other areas to share knowledge and experience as part of our dream to take Ice Swimming to the Winter Olympics with World Aquatics.

1.1.4. Some terms mentioned in this document are defined in the IISA Swimming Rules & Regulations. They are capitalised to highlight a defined term in IISA. [IISA R&R](#).

## 1.2. GENERAL

- 1.2.1. While aquatic sports disciplines are generally considered safe from a medical perspective, there is obvious potential for drowning in all water-based sports. General medical conditions common to all aquatic athletes include upper respiratory infections, skin and eye infections, allergies, the effects of overtraining, iron-deficiency anaemia, infectious mononucleosis and exercise-induced asthma.
- 1.2.2. Each aquatic discipline also carries a potential for injury unique to that sport. Ice swimming, as a competitive aquatic sport, is more like an aquatic pool competition in distance and time, although longer events such as the Ice Mile may occur in an ocean or lake.
- 1.2.3. Ice Swimming is performed unassisted in water at 5.0 degrees Celsius or lower, using a single silicon cap, a pair of goggles and a standard swimming costume.
- 1.2.4. Swimming in extremely cold water temperatures introduces a different challenge besides the apparent hypothermia. Swimming in icy waters impacts the athlete's skin, extremities, limbs, breathing, heart rate, sight, focus and all sensory reactions. The athletes are not new to the effects of swimming in such cold water. However, the speed of the body's reaction to the effects of the icy waters is enhanced by the water's high conductivity, and events may unfold quickly. Therefore, it is critical that Ice Swimming safety covers:
- Pre-swim screening, qualifying and medical checks.
  - Throughout-swim monitoring and reaction protocols.
  - Post-swim care and monitoring until satisfactory recovery.
  - Venue safety protocols ensure the availability of the required equipment, treatments, transfer and evacuation if required.

### 1.3. IISA MEDICALS

- 1.3.1. IISA medicals are now required for all participants at any distance in all IISA events. Swimmers must have undertaken an IISA medical. The swimmer must declare their intent to make a swim attempt to the doctor handling the medical examination. The swimmer must disclose any medical history to the doctor, such as, but not limited to, allergies, chronic illness, hereditary cardiac conditions, medications they use regularly or any discomfort that may affect their ability to swim in the ice.
- 1.3.2. The ECG results and the medical assessment form must be presented at the event registration. In a solo attempt, the swimmer must present the signed IISA medical assessment form and ECG to the official observer and the Medical Officer for verification. Failure to comply with this requirement will mean that the swimmer is not qualified to undertake a swim or participate in an IISA event.
- 1.3.3. The ECG must use 12 points to be recognised as an IISA medical ECG.
- 1.3.4. The IISA medical and ECG are valid within 12 months of the swim date (inclusive). That validity would fall away if the swimmer had COVID-19, pneumonia, a cardiac or pulmonary event or any other major medical or traumatic event since their IISA medicals were signed.
- 1.3.5. If the swimmers experience any change in medical circumstances or experience a significant medical event, they must declare it to the Medical Officer and perform a new medical and ECG.
- 1.3.6. Each swimmer must meet the event doctor and hand in their medicals + ECG for review registration.
- 1.3.7. A swimmer's lack of disclosure of relevant medical history may lead to disciplinary action.
- 1.3.8. IISA Medical Officer accreditation—anyone who wishes to be accredited by the IISA Safety Committee as a Medical Officer based on medical experience and experience in Ice Swimming events should apply to the IISA.
- 1.3.9. The IISA Safety Committee will assess and accredit Medical Officer accreditation.
- 1.3.10. This document aims to familiarise event organisers, athletes, coaches, safety personnel and other members of the athlete's 'entourage' with information relevant to ice swimming.

### 1.4. IISA MEDICAL ASSESSMENT FORM ON THE IISA WEBSITE:

- 1.4.1. <https://internationaliceswimming.com/wp-content/uploads/2023/11/IISA-Medical-Assesment-Form-Oct-2021-English.pdf>
- 1.4.2. Please use the IISA website form as it will be updated first when changes may occur.

## 2. SAFETY PROTOCOLS IN ICE SWIMMING

### 2.1. PRE-SWIM PROCEDURES

2.1.1. **Qualifying and acclimatisation** - It is important to understand that athletes can be highly qualified and experienced in warm water swimming and can find the icy water a new sport at the start. The multiple factors of the body's reaction to extremely cold water are new sensations to athletes who have not experienced ice swimming. Even experienced swimmers can lose their acclimatisation after long breaks from icy water. Therefore, athletes must spend time acclimatising to the cold water for a period before their event. The qualifying procedures ensure that athletes have safely swum a comparable distance in icy waters recently before an event. The qualifying process and athletes' selection for an event must be considered.

2.1.2. **IISA® Medical Assessment** - This requires a complete medical and 12-point ECG within 12 months before the event. An athlete's medical history plays a significant part in pre-swim qualification. The athlete is responsible for organising a medical with their own physician. The event Medical Officer reviews the submitted medical application and organises more extensive investigations if the medical history raises concerns. This document does not specify each possible concern, but the focus is particularly on cardiac history and any previous swimming-related medical issues. It is required in all IISA events to meet the Medical Officer as part of registration and submit the IISA Medical Assessment and ECG for the Medical Officer to examine.

2.1.3. **The medical practitioner** should understand the sport sufficiently to assess the swimmer's fitness to participate. Some medical conditions may require further assessment by a specialist in the field of concern to reach a consensus regarding the risk assessment for swimming. The most common findings relate to cardiac history or ECG changes. Any specialist opinion should be documented as an appendix to the IISA Medical Assessment when this occurs.

1.1.1. **On the day of the swim event**, the Medical Officer verifies the participant's medical history, reviews the ECG and performs vital checks (heart rate, blood pressure, temperature). If the Medical Officer is unsure about a swimmer's swimming fitness, they can seek a second opinion. If not, the swimmer will not be permitted to swim. The medical officer's decision is final.

### 2.2. WARM-UP AND LAST-CALL ROOMS

2.2.1. **Recovery room** - Athletes must have a warm room and environment pre-swim. All related rooms, such as last call, muster hall, medical rooms and others, must be heated to a comfortable temperature and protected from wind, rain or outside weather. These rooms need to retain a dry floor and dry environment. Changing rooms must be comfortably warm to ensure athletes do not arrive at the pool cold.

2.2.2. **Dress code for the pool** - There is no specific dress code for the pool area. However, wearing a thick robe or parka, a beanie and clothing that keeps one warm while waiting for the swimmers' event is encouraged.

2.2.3. **Last call room** - The process from the last call room to the start should be efficient to prevent athletes from spending too much time outside by the pool, waiting for their event. However, athletes need to be prepared to wait around five minutes or sometimes more before their heat is called. It is vital to wear non-slip footwear, as the start area may be covered with snow or ice, and there may be potential for rain.

2.2.4. **Safety belt** - Every swimmer, no matter what stroke or distance, must wear a safety belt during the swim. The safety belt facilitates a rapid rescue from the water if required. A swimmer in distress in icy water may be unable to move or control limbs. A wet body in swimwear is inherently slippery, so the belt provides a secure hold to grab the swimmer and remove them from the water.

## 2.3. DURING SWIM SAFETY PROCEDURES

2.3.1. **The 'second' (or 'guardian angel')** - The swimmer must have a second for 500 m or longer distances. The second role is well defined in the IISA Swimming Rules and Regulations. The second will perform the following:

- Accompany the swimmer from the last call room to the start.
- Assist with taking the swimmer's clothes off before the start and keeping them dry in order for the swim to end.
- Keep a watchful eye on the swimmer during the swim. The second pair of eyes are dedicated to the swimmer.
- Notify the poolside safety and referee if they are concerned about the swimmer's stroke, body language, behaviour or any possible risk that requires focused attention on the swimmer.

2.3.2. **Divers and safety personnel** - Every pool must have appropriately attired lifeguards/divers trained and experienced in cold-water rescue. In addition to the emergencies that can occur at any poolside, there are some specific ones related to cold water swimming. A cold shock response at the start of a swim may cause a swimmer to inhale a significant amount of water. Therefore, particular attention should be paid to observing swimmers at the beginning of a race. For this reason, starts are performed in the water. The cold may induce cardiac arrhythmias, cold-induced asthma or rarely swimming-induced pulmonary oedema. During a swim, particularly longer swims, 'swim failure' may occur if the swimmer's muscles become too cold to function normally. Safety personnel should be instructed in the recognition of these issues and should take a risk-averse approach, stopping swimmers if there are any concerns.

2.3.3. **Ambulances and Medical Officer** - At least one ambulance with all required emergency equipment should be available at the event or within proximity (within five minutes). A medical team with training and experience in managing the anticipated range of medical emergencies should be in attendance. Specific expertise in the recognition and management of hypothermia, cardiac arrhythmias, asthma and SIPE (swimming-induced pulmonary oedema) is required.

2.3.4. **Things to watch for during the swim** - The intensity of the water temperature and the rapid cooling of the swimmer's skin, extremities, muscles and more can lead to distress. The swimmer's visual appearance can give the safety team and the second a good indication of the risk.

Observations should include:

- Stroke rate – A significant drop in stroke rate is 10% to 20%.
- Stroke form – Swimmer’s stroke deteriorates in form.
- Body Position - Being lower in the water or sinking legs may indicate imminent swim failure.
- Swallowing water – Facial muscles lose control, and the swimmer starts to swallow water with every stroke.
- The direction of swim – The swimmer's focus deteriorates, and the swimmer is unable to swim straight/maintain lane discipline.
- Swimmer stopping – Swimmers who cannot maintain the stroke with which they started the event or who stop during a race may suffer from hypothermia.
- Confusion/inability to interact rationally with event safety personnel.
- Swimmers demonstrating any of the above signs will be instructed to abort their swim. In this case, the medical safety officer's decision is final.

2.3.5. **Swimming safety rules** - The basis of IISA® swimming rules is derived from standard professional swimming rules, drawing from World Aquatics Pool and Open Water Swimming and from English Channel rules. Many have been modified to cater to the safety and specifics of Ice Swimming conditions.

2.3.6. The primary safety departures from these rules are:

- Start - The swimmer climbs down a non-slip ladder and positions themselves, holding the ladder with one hand, ready to start the swim when the gun goes off. No diving is allowed. The swimmer must not be underwater for more than five metres at the start and during turns. This is to allow swimmers to manage the cold shock response [see above]. This also allows a precise headcount and, with minimal underwater swimming, facilitates close monitoring of the swimmers.
- Turns - The only turns allowed in Ice Swimming are open turns. There are several reasons, but the main one is to minimise swimmers' time underwater, always keeping them visible. Flip turns often require a breath hold of several seconds, which poses an additional risk of aspiration in swimmers who may be hyperventilating in response to cold immersion.

## 2.4. POST-SWIM SAFETY PROCEDURES

2.4.1. Exit from the pool - The exit is performed via the ladder available in each lane. The second should be available to assist their swimmer out of the water. If there are any signs of distress, the lifeguards should also attend and help the swimmer. Particular attention should be paid to the safe exit from the water of swimmers after the longer events as they are more likely to be hypothermic.





- 2.4.2. The degree of assistance offered should be proportionate to the swimmer's needs. The skin will be cold with vasoconstriction, and peripheral sensation may be reduced, meaning that swimmers are at increased risk of injury with cuts and abrasions. In moderate hypothermia, fine or gross motor skills may be impaired, with the swimmer requiring assistance moving and dressing. Assistance needs to be provided with care and clear, concise communication, as hypothermia can produce a degree of mental impairment. The safety team should be alerted to observe and monitor swimmers requiring significant assistance from their second.
- 2.4.3. If the swimmer cannot walk, medical staff and other staff by the poolside will assist the swimmer to the recovery area. In case of emergency, the Medical Officer will treat the swimmer on site.
- 2.4.4. Should a swimmer be incapacitated while in the water, they should be recovered as soon as possible and transferred to a warm recovery area where medical and safety personnel can closely supervise them. If resuscitation is required, immediate first aid should be administered, with strong consideration to transfer the swimmer to an emergency medical facility.
- 2.4.5. Most swimmers will recover following rewarming and may be released to the care of their second when the Medical Officer or their delegate is satisfied that they are recovering well.
- 2.4.6. The recovery process and recovery time may vary from one swimmer to another. Each swimmer may have a preferred process but should be under supervision until the officials are satisfied.
- 2.4.7. The most used recovery and rewarming techniques include a sauna, hot tub/shower, warm clothing and mild physical activity.
- 2.4.8. Risk mitigation should be in place for these. The recovering swimmer should always be observed rewarming for possible syncope, arrhythmia and fainting during the rewarming process.
- 2.4.9. There is an additional risk of burns in a sauna and of drowning in a hot tub, hence the need for close observation.
- 2.4.10. Showering immediately after a swim should be strongly discouraged. Cold swimmers may burn themselves and, with rapid rewarming of their skin, suffer a sudden drop in blood pressure as the blood vessels that have constricted due to the cold suddenly vasodilate.
- 2.4.11. Seconds should be aware that a swimmer who is well immediately after the swim may continue to cool significantly for up to 30 minutes following the swim, so they should accompany the swimmer and keep close observation until the swimmer has fully warmed up again.

## 2.5. SAFETY ENVELOPE

- 2.5.1. **Safety envelope** - The safety envelope refers to the entire safety and medical infrastructure surrounding the pool and the venue, catering as far as possible for every eventuality. The event Safety Plan should detail the safety protocols, personnel and available resources. Although the required safety envelope is similar for all events, the venue can dictate different specific requirements due to the layout of the venue (outdoor facilities), location or remoteness and access to the helipad, nearby medical centres and hospitals.
- 2.5.2. **Concentration risk** - At any time during the active part of the event, 8-10 swimmers may be in the water. Some are in the hot tub, showers, sauna or recovery. The event director and staff, together with the medical officers, should always maintain oversight of all areas.

- 2.5.3. If the Medical Officer and safety resources are occupied with a casualty, they may be unable to fully cater to an additional one. Under such circumstances, the swimming must stop or wait until both the Medical Officer and event director are satisfied that the safety envelope of the event is at total capacity.
- 2.5.4. This may be caused by:
- All doctors being busy.
  - All ambulances being busy.
  - A medical event by the poolside.
  - The recovery facility being occupied by an emergency.
  - The number of swimmers who require extra attention being beyond the event's capacity.
  - Death.
  - Any other eventuality that compromises the safety envelope's ability to function correctly.
- 2.5.5. It is essential to notice that such eventualities are rare and may never occur. However, the nature of Ice Swimming as an extreme sport requires the safety envelope always to be 100% functional, regardless of how rare the possibilities are.

## 3. MEDICAL ISSUES IN ICE SWIMMING

### 3.1. POTENTIAL INJURY AND ILLNESS

- 3.1.1. This section does not intend to provide a finite list of medical conditions likely to affect ice swimmers. Instead, it summarises common medical issues that should be considered by team physicians and the medical staff of any organising committee hosting an IISA event. cursory comments regarding standard management options are included to assist in planning for major Ice Swimming events.

### 3.2. EPIDERMAL OR MUSCULOSKELETAL INJURIES

- 3.2.1. Ice swimmers may occasionally suffer contact injury from direct contact or unintentional collision with the ladder or lane rope. Bruising and soft tissue contusion are most often minor traumatic incidents, managed conservatively, with minimal disruption to training and competition. The low skin temperature can alleviate the skin's sensitivity to bruising or minor skin breaks. However, swimmers may also have reduced sensation to pain, so injuries should be assessed by a suitable clinician.
- 3.2.2. Any cuts or breaks in the skin should be appropriately dressed. All musculoskeletal injuries in ice swimmers should be assessed and managed by qualified clinical staff in conjunction with specialised input from physiotherapists and biomechanics specialists. It may be that there is an underlying technique or a muscle imbalance, with managed rehabilitation demanding a close working relationship between athlete, coach and therapist (biomechanism, strength and conditioner, coach or physiotherapist). In a few cases where conservative medical management is unsuccessful, orthopaedic surgical intervention may be necessary.

### 3.3. INFECTIONS

- 3.3.1. **Fungal infections** - Fungal skin infections are prevalent in moist environments common to all aquatic disciplines. Tinea pedis, or ‘athlete’s foot’, is the consequence of infection enhanced through moisture between the toes. Fungal spores are readily transmitted, and footwear is encouraged on the pool deck and when showering. Meticulous attention to drying the wet spaces is a helpful mitigation strategy, and sharing socks or sports shoes should be avoided. Topical antifungal applications applied several times daily will generally control most fungi. Recalcitrant infections should be referred for medical opinion.
- 3.3.2. **Ear and eye infections** - Prolonged water immersion may also predispose all swimmers to ear canal infections (otitis externa). Constant irritation to cool water may also stimulate the formation of bony growths (exostoses) in the wall of the ear canal over many years.
- 3.3.3. Moisture can collect in the canal to produce localised infection, resulting in itchy, painful ears (‘swimmers’ ear’). This condition is usually easily managed with antibiotics and glucocorticoid drops. An alcohol preparation may also assist in drying out the ear canal. The progressive growth of exostoses, a condition known as ‘surfers’ ear’, may obstruct the outer ear canal and impede hearing. This condition requires specialist intervention, and surgical removal of the offending bony outgrowth is the only sure cure. This risk is exacerbated by the colder temperatures in ice swimming, and earplugs are strongly recommended.
- 3.3.4. Occasionally, swimmers may suffer eye infections or conjunctival irritation. Discrimination between simple inflammation and secondary bacterial infection will determine appropriate management. Topical applications of antibiotics, antihistamines or glucocorticoid drops are commonly required, always under medical supervision.
- 3.3.5. **Asthma and respiratory tract infections** - Ice swimmers with a history of asthma must pay particular attention to their regular medication use. Cold water immersion may trigger an acute asthma attack. Standard combined inhalations of ‘reliever’ and ‘preventer’ medication manage most situations and do not usually require a Therapeutic Use Exemption (TUE). A regular personal recording of peak flow rates gives every athlete a good indication of asthma control or advanced signal of an impending ‘crisis’ requiring oral medication and application for a TUE. Team physicians should manage such cases and be aware of the WADA Prohibited List and any potential for TUE application.
- 3.3.6. Asthma may also predispose an athlete to secondary chest infections. During the recent COVID-19 pandemic, the road to full recovery was slower for athletes with a history of asthma. Medical oversight is critical in these situations.

### 3.4. ULTRAVIOLET EXPOSURE AND SUNBURN

- 3.4.1. Although typically carried out in winter, some Ice Swimming may occur in mid-summer with clear sunny skies if done in the polar regions. The risk of UV exposure can still be present in ice swimming. Therefore, the risk of sun damage, particularly to the neck and shoulders of swimmers, is common. Judicious use of appropriate sun-blocking, water-resistant creams is advisable for all athletes.

### 3.5. CHAFING AND SKIN IRRITATION

3.5.1. It is important to note that Ice Swimming does not allow wetsuit use under any water conditions or temperatures. Swims are also done chiefly in fresh water, where skin friction is minimal. However, typical skin irritation may occur, especially in the areas of the neck and beneath the armpits. To minimise this, swimmers may apply appropriate lubricants, such as lanolin-based creams, to reduce the risk of chafing. Any area of broken skin should be managed carefully to reduce the risk of a secondary infection. Medical advice should be sought for any persisting problems.

### 3.6. HYPOTHERMIA AND COLD SHOCK

- 3.6.1. By its very nature, Ice Swimming is conducted in extremely cold water. In addition, factors, including ambient temperature, wind, snow and precipitation, may impact the capacity of any swimmer to maintain a safe, stable core body temperature. It is important to note that Ice Swimming has cut-off times for longer distances of 500 m and 1000 m, which is around 25 minutes. This will be fine for most well-trained, acclimatised swimmers. However, the duration of the event, the period of immersion or intercurrent medical conditions may render some athletes more vulnerable to cold 'stress', with profound and potentially life-threatening consequences when compounded by fatigue and poor hydration. This document does not intend to cover the signs of hypo- or hyperthermia and appropriate clinical management. However, a non-negotiable, collective responsibility for swimmer health and safety is shared by all organisers, staff, coaches, seconds and swimmers at every Ice Swimming event.
- 3.6.2. Hypothermia may manifest in various ways. In the early stages, peripheral sensation and fine motor control can be reduced (e.g. numb, clumsy hands). Even mild hypothermia may be sufficiently severe to prevent swimmers from dressing themselves, hence the requirement for a second to assist.
- 3.6.3. More profound hypothermia can affect clarity of thought, with swimmers struggling to follow simple commands or being delayed in responding to questions.
- 3.6.4. Hypothermia affecting large muscle groups can cause sudden swim failure. Particular attention should be paid to swimmers whose stroke rate or form deteriorates, which may indicate incipient swim failure.
- 3.6.5. Following exiting the water, a swimmer's core body temperature may continue to cool, a phenomenon called 'after drop'. Even an experienced swimmer may develop significant hypothermia in 5-10 minutes following a swim. They should remain under close observation, specifically if using a shower, hot tub or sauna. The rate of swimmer rewarming needs to be controlled and closely managed by medical personnel/support staff (including the swimmer second). Swimmers warmed too quickly can develop problems, including syncope and cardiac arrhythmias.
- 3.6.6. Most swimmers recover rather quickly in the short to medium distances. However, extra care is required for longer distances such as 500 m and 1000 m. It is important to note that the risk of post-ice swim incidents is linked to time spent in the water rather than distance. Therefore, the fast elite swimmers who swim 1000 m in less than 13-14 minutes are at lower risk due to the shorter immersion time.

### 3.7. PRE-SWIM ASSESSMENT

- 3.7.1. The extreme nature of Ice Swimming puts additional cardiovascular strain on the participant. Due to the phenomena known as after drop to muscle cooling, swimmers not acclimated to cold water swimming are at increased risk of swim failure.
- 3.7.2. All swimmers participating in Ice Swimming events should provide evidence of a pre-swim medical assessment, including a cardiovascular and respiratory assessment and an ECG (electrocardiogram). For all events witnessed, qualifying swims should also be certified.
- 3.7.3. During the pre-swim medical, issues of concern include:
- 3.7.4. An underlying history of cardiac pathology; in this case, a more detailed report from the treating cardiologist is generally required. A history of epilepsy: a neurologist's report is required. History of severe hypothermia/asthma/cardiac arrhythmias.
- 3.7.5. Onsite medical assessment of vital signs must be undertaken and recorded by the onsite medical officer, including heart rate, blood pressure and temperature, to clear the swimmer for participation in the event on the day.
- 3.7.6. Swimmers and coaches must be aware of the environment they are preparing to compete in and undertake appropriate acclimation and training adaptation well in advance. During the race, coaches must implement a pre-determined, well-rehearsed race plan.
- 3.7.7. Race officials must maintain extra vigilance across the competitive field and be prepared to act promptly for athlete safety. This requires consultation with the appointed safety officer and on-water medical staff, with helpful input from the athlete's coach if readily accessible.
- 3.7.8. Local organisers must ensure sufficient safety personnel and equipment to cover the whole field and implement a well-practised retrieval plan in the event of any swimmer in distress.
- 3.7.9. On-shore medical services must be able to provide immediate triage and appropriate resuscitation.

### 3.8. SWIMMING-INDUCED PULMONARY OEDEMA

- 3.8.1. Swimming-induced pulmonary oedema occurs when the fluid leaks from the pulmonary capillaries into the alveoli (air sacs). The mechanism is not fully understood, but in ice swimmers, it is most likely due to an increase in the pulmonary arterial pressure, causing the vessels to leak. Some swimmers may be predisposed to this, e.g. those with a prior history of altitude sickness; others may develop increased susceptibility in response to a respiratory tract infection. The treatment depends on awareness, early recognition and the management of the casualty, who should be sitting upright with oxygen and, if necessary, transferred to an emergency medical facility.

## 4. GENERAL CONCEPTS

### 4.1. PERTAINING TO ALL ICE SWIMS

- 4.1.1. These medical and safety regulations apply to all Ice Swimming events organised by the IISA, sanctioned by the IISA or over which the IISA has technical control ('IISA events'). These regulations augment the IISA Swimming Rules and Regulations and the Medical Requirements for IISA Events.
- 4.1.2. They detail skilled personnel required on site, the position of medical and emergency staff during competitions, the equipment needed and the visibility of the medical staff.
- 4.1.3. The critical elements of these regulations are the following:
- 4.1.4. A pre-swim medical assessment including an ECG must be verified by the Medical Officer on site.
- 4.1.5. All ice swimmers must be observed during the competition to recognise a distressed swimmer immediately.
- 4.1.6. A rescue protocol must be established to promptly retrieve any swimmer in distress with immediate access to an identified evacuation point.
- 4.1.7. There must be appropriate acute resuscitation capability for any medical emergency.



## 5. SAFETY RULES

### 5.1. MEDICAL PROTOCOLS

- 5.1.1. This medical protocol shall apply to all IISA events regardless of distance in events sanctioned by the IISA.
- 5.1.2. It shall detail the people needed on site, the position of medical and emergency personnel during competitions, the equipment needed and the visibility of the medical staff.
- 5.1.3. Critical elements of these regulations include:
- 5.1.4. Submit a site-specific Emergency Action Plan compliant with these regulations as part of the event approval process.
- 5.1.5. Approval of that Emergency Action Plan by the IISA Safety Committee as a condition of event approval.
- 5.1.6. Appointment of an IISA Safety Committee, which is independent of the Host Member Federation and Organising Committee ('HMF/OC'), to ensure that the approved Safety Plan and the requirements of these regulations are implemented on race day.
- 5.1.7. The authority vested in any one of the IISA Safety Committee, the HMF/OC safety officer or the chief referee to postpone, cancel or modify an event where safety conditions warrant.
- 5.1.8. Careful accounting for all swimmers before, during and after the race is needed to ensure that all swimmers starting the race are accounted for when they withdraw or finish the race.
- 5.1.9. All swimmers must be observed during the race so that there is immediate recognition when a swimmer is struggling or loses consciousness.
- 5.1.10. A rescue protocol must be established to promptly retrieve any distressed swimmer with immediate access to an identified evacuation point.
- 5.1.11. There must be appropriate acute resuscitation capability for any medical emergency.

### 5.2. MEDICAL SERVICES

- 5.2.1. The medical services for Ice Swimming are described above in the safety envelope.
- 5.2.2. Effective planning for athlete health care must be based on a clear understanding of the size and scope of the IISA event. From a purely logistical standpoint, the medical plan must consider:
  - The duration of the event.
  - The location of the venue.
  - Environmental conditions.
  - The number of participants.

### 5.3. HEALTHCARE PERSONNEL (HCP)

- 5.3.1. Numbers will depend on the size of the event but may include the following:
  - Primary care/sports medicine/emergency medicine physicians.
  - Lifeguard or diver in an ice water wetsuit or semi-dry suit.
  - First aid responders.
  - Paramedics.



- Nurses.
- Physiotherapists.
- Massage therapists.

5.3.2. All IISA events should have trained and qualified lifeguards or divers on site for all training and competitive sessions. They will be responsible for any difficulty in retrieving an athlete in the water.

5.3.3. Athlete medical services must be provided on all official training and competition days, beginning at least one hour before training or the competition begins.

5.3.4. Training and the competition can start with the presence of lifeguards and healthcare professionals.

## 5.4. VENUE MEDICAL STATION

5.4.1. The medical station and the treatment and recovery area will be designated at each competition venue and training venue.

5.4.2. The area should be clearly labelled and be within easy access of the pool area.

5.4.3. Access to ambulance transport should also be easily reached from the treatment area.

## 6. EMERGENCY ACTION PLAN

6.1.1. The Emergency Action Plan should be clearly defined according to the sport-specific risk.

### 6.2. EMERGENCY PLAN DETAILS:

6.2.1. Procedures for how and when to access the field of play.

6.2.2. Emergency treatment and evacuation procedures from the field of play:

- Include educational videos.
- Daily medical scenario training/practice.
- Emergency medical protocol for athlete medical stations.

6.2.3. Clearly defined protocols for the field of play for dealing with:

- Life-threatening injury.
- Hypothermia.

6.2.4. The exit pathway from the field of play to either the athlete venue medical station or the ambulance.

6.2.5. Location of ambulance transportation.

6.2.6. Completion of medical records, including the maintenance of privacy and confidentiality.

## 7. ASSISTED SWIMMERS' SAFETY

### 7.1. PARA SWIMMERS AND SWIMMERS REQUIRED ASSISTANCE

7.1.1. Any swimmer requiring assistance getting to and from the poolside or entering and exiting the pool should notify the safety staff in advance.





- 7.1.2. Poolside safety, volunteers and divers should be aware of any swimmer who requires assistance entering and exiting the pool, especially PARA swimmers.
- 7.1.3. Assisted swimmers PARA or others should brief the poolside safety team, including divers, on how they plan to enter and exit the pool before and after the race.
- 7.1.4. Divers and the poolside safety team must be prepared and briefed on extracting a swimmer in distress with a disability to be best prepared for any eventuality.

## 8. MEDICAL/SAFETY PLAN

### 8.1. SUBMISSION TO THE IISA EVENT COMMITTEE:

- 8.1.1. For all covered competitions, the HMF/OC shall submit a site-specific Safety Plan to the IISA for its approval by 14 days before the first day of training or competition. That Safety Plan shall comply with all requirements of these regulations.
- 8.1.2. The IISA Safety Committee shall review each Safety Plan and approve, modify or reject the submitted Safety Plan.
- 8.1.3. No covered competition subject to these regulations shall be sanctioned or approved by the IISA without an approved Safety Plan.
- 8.1.4. Any change to an approved Safety Plan requested up until five days before the race must be approved by the IISA Safety Committee. Changes to an approved Safety Plan necessitated by circumstances beyond the control of the HMF/OC requested within five days of the race or otherwise required to protect participant safety may be approved by the IISA Event Committee appointed by the IISA for the race.

### 8.2. IMPLEMENTATION OF THE MEDICAL/SAFETY PLAN AT THE EVENT

- 8.2.1. Concurrently with an event awarding, the IISA shall appoint an IISA Event Committee for each Covered Competition. The IISA Event Committee shall be independent of the HMF/OC. The IISA Event Committee shall generally be responsible for all matters related to the safety of the competition participants. It shall be specifically responsible for ensuring that the approved Safety Plan and these regulations are followed during the competition.
- 8.2.2. The HMF/OC shall appoint an HMF/OC safety officer with experience in icy water safety and an HMF/OC Safety Committee responsible for organising and implementing all safety aspects of the competition. The HMF/OC Safety Committee shall include certified local lifeguards with experience in bodies of extremely cold water, who shall be involved in safety during the competition.
- 8.2.3. The IISA Event Committee shall inspect the competition venue and meet with the HMF/OC Safety Delegate and Safety Committee at least three days before the scheduled start of the competition to ensure that the Safety Plan remains adequate to address the conditions at the competition venue and that all actions necessary to implement the approved Safety Plan have been taken.
- 8.2.4. The IISA Event Committee shall ensure that all the elements of the Safety Plan are in place prior to the start of the competition so that it can commence.

- 8.2.5. The IISA Event Committee shall have the authority to modify, postpone or cancel the competition whenever the approved Safety Plan is not being implemented or as otherwise required to protect the safety of participants. The HMF/OC safety officer and the race's chief referee may advise the IISA safety delegate on the competition's modification, postponement or cancellation.

### 8.3. ATHLETES BRIEFING/TECHNICAL MEETING

#### 8.3.1. Technical meeting:

- Athlete representatives must attend the technical meeting. If a swimmer or the swimmer's representative cannot attend the technical meeting, the swimmer must attend a special safety briefing to participate in the race.
- Safety topics that shall be included in the technical meeting include:
  - Explanation of the course layout and hazards.
  - Water conditions.
  - Weather conditions.
  - Water temperature.
  - Water quality conditions.
  - Description of the method by which the Safety Committee will monitor swimmers.
  - Location of safety accessories, if deployed, and safety personnel.
  - A description of medical support onsite and the availability of hospital care.
  - Transport procedures to the nearest hospital.
  - Signals and raises their hand for assistance.
  - An evacuation plan for clearing the racecourse, including a description of related visual and audible signals, is needed.

#### 8.3.2. Briefing:

A short pre-race safety briefing, mandatory for all swimmers, shall be held immediately before the race.

## 9. SPECIFIC SAFETY PLANS AND RACE SAFETY IMPLEMENTATION REQUIREMENTS

- 9.1.1. Each Safety Plan required by these regulations shall include the following minimum requirements. The implementation of these requirements is mandatory for each covered competition.

### 9.2. SPECIFIC ISSUES ARE COVERED IN IISA SWIMMING RULES AND REGULATIONS

- 9.2.1. <https://internationaliceswimming.com/iisa-rules/>

