



LIFESAVING SOCIETY®

The Lifeguarding Experts

IN-WATER SEIZURES

INFORMATION BULLETIN – December 2024

Seizure disorders (such as epilepsy) carry an increased risk of submersion and drowning for swimmers. Types of seizure can vary from a brief lapse in attention, muscle jerks, to severe and prolonged convulsions. Seizure victims may present as distressed swimmers, drowning non-swimmers (DNS), or unresponsive victims.

SAFETY MANAGEMENT

Swimming pools should have signage advising swimmers with serious medical conditions to consult with a healthcare provider before use and be accompanied by an individual who maintains visual contact with them while using the facility. Patrons should be encouraged to notify lifeguard staff of their condition.

Prior knowledge of a swimmer's condition may assist the lifeguards' response should an emergency occur. The risk of submersion and drowning is highest for individuals who have:

- Frequent seizures (more than one per year),
- Unpredictable, convulsive seizures, and/or
- Other disabilities

When a healthcare provider approves water activities, additional precautions and attention are recommended such as:

- Swimming in clear, shallow, and still water.
- Swimming with a securely fastened personal flotation device (PFD) that will support an unresponsive person.
- Swimming within arm's reach of a capable support person.

TREATMENT

Lifeguards should expect to supervise swimmers with known or undiagnosed seizure disorders and be trained to respond to victims seizing in the water.

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During an in-water seizure:

- Roll the victim (if face-down) or swim the victim to the surface (if submerged), prioritizing rescuer safety throughout (shown in Figure 1).
 - *NOTE: Focus on maintaining a safe distance from the victim and on quickly supporting the airway above the surface.*
- Support the victim with their airway above the water at the nearest wall (shown in Figures 2-3). If the victim is in deep water, begin transporting them towards shallow water where possible.
- Do not restrain or restrict motion or put anything into the victim's mouth.
- Activate EMS at the earliest possible moment.

Although longer seizures are possible, most do not last more than 60 to 90 seconds. For this reason, **it is preferential to remove a seizure victim from the water after the seizure subsides**, where removal is safer for the lifeguard team and the victim.

However, there are some circumstances where lifeguards should consider removal from the water during a prolonged active seizure:

- If a removal will be safe to perform based on:
 - The nature (i.e. violence) of the convulsions / type of seizure
 - The victim's size or body composition
 - The number of lifeguards or assistants available
- If there are environmental concerns that may have triggered the seizure or could cause further harm if the victim remains in that environment (e.g. very hot or very cold water).
- As directed by EMS dispatch or first responders.
 - *NOTE: BCEHS paramedics will not enter the water to assist with victim removal.*

A spine board may be used as an extraction device to assist in removing a seizing victim as shown in Figure 4.

After removal from the water:

- Assess the victim's airway, breathing & circulation.
- If breathing, place the victim in the recovery position.
- Treat the victim for drowning and shock.
- Monitor the victim's airway and breathing until the victim is fully awake and alert.
- Experiencing a seizure during water activities may result in submersion/immersion of the airway. Treat seizure victims as drowning victims by administering oxygen immediately after the seizure has subsided.

Figure 1



Victim Carry

Figure 2



Shallow Wall Support

Figure 3



Deep Wall Support

Figure 4



Extraction Removal

References

- HealthLinkBC (2021). *Helping a person during a seizure*. <https://www.healthlinkbc.ca/health-topics/helping-person-during-seizure>
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