

ALERT

LIFEGUARDING IN ACTION

The textbook of the National Lifeguard Service



THE ROYAL LIFE SAVING SOCIETY CANADA

Acknowledgements

Alert: lifeguarding in action features the expertise and experience of lifeguards, aquatic administrators, facility managers and programmers, and professionals in a variety of fields including education, emergency medicine and law.

The author of the first edition of *Alert*, **Jocelyn Palm**, then national executive director of The Royal Life Saving Society Canada, identified the need for an updated edition of her standard-setting text and initiated the work toward an expanded second edition. While the second edition introduces new content, *Alert* retains much of the material from the first edition, attesting to Jocelyn's insight, sound judgment, and understanding of lifeguarding principles.

This second edition of *Alert: lifeguarding in action* was prepared under the leadership and guidance of National Lifeguard Service Committee experts from across the country. This edition also includes **Frank Pla's** research on the Instinctive Drowning Response found in *On Drowning and Observations on the Drowning of Nonswimmers* and the factors leading to drownings in supervised areas which he authored in *The RID Factor as a Cause of Drownings* and outlined in *The World of Lifesaving*. **Richard Huint**, author of *Lifeguarding in the Waterparks*, developed the chapter on Waterpark Operation and Safety and the **World Waterpark Association** is acknowledged for "Safety Rules" from their publication, *Considerations for Operating Safety*.

Photojournalist **Victor Fisher**, whose work appears in books and magazines around the world, contributed many of the photographs. A lifeguard himself for seven years including four years with the Wasaga Beach Patrol in Ontario, Fisher says that by photographing lifeguards he still lives the life of a lifeguard vicariously through the images.

The Royal Life Saving Society Canada thanks the many individuals who helped shape the content of this second edition. In particular the Society acknowledges the following people for their significant contributions throughout this book and thus to the standard of lifeguarding education in Canada:

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Ensure that your zone is supervised during communications with patrons. Keep conversations brief and keep your eyes on the area. If you must communicate for any longer than a few seconds, signal another guard to cover your area.

Where close communication is not possible, use devices such as megaphones to project your voice. In large cosmopolitan areas, lifeguards have to account for a variety of languages spoken by patrons.

c) Public address systems.

Once an emergency response has been initiated, a public address (P.A.) system may aid in crowd control.

Announcements should be brief. Speak slowly, enunciate each word clearly and pause between sentences. Avoid indicating panic or annoyance in your voice. Repeat announcements can be useful; however, avoid over-use of the P.A. system.

P.A. systems are also used for important announcements during public swims, but announcements should not be so frequent that they annoy patrons or that they are eventually ignored. Limit the staff authorized to use the P.A. system. Use a tape recorder to practice public address skills.

P.A. systems are available in a variety of forms. Various models have effective ranges under different conditions. Test units before purchasing. Ensure the unit will do the job required for your specific situation.

d) Flags.

See *Flags on Shore* in Chapter 12.

FACTORS IN DROWNINGS IN SUPERVISED AREAS

Drownings in supervised aquatic facilities are rare. However, the chances that a drowning will occur in a supervised area are greatly increased by a combination of:

- a failure to Recognize the signs of distress or drowning
- Intrusion of non-lifeguard duties on a lifeguard's primary task - preventive lifeguarding
- Distraction from surveillance duties.

Based on his research study into drownings in the United States from 1919-1980, Frank Pia

found that swimming-related fatalities in supervised areas can be caused by any one or a combination of the R.I.D. factors listed above.

a) Failure to recognize.

Fatalities in supervised aquatic facilities are often unwitnessed drownings in which neither the lifeguard nor nearby swimmers notice the drowning victim struggle and slip below the surface. Training in victim recognition and effective scanning techniques, combined with vigilant, attentive, and alert lifeguarding minimizes (but does not eliminate) the chances of an unwitnessed drowning. (See *Recognizing Trouble* in Chapter 3.)

b) Intrusion of non-lifeguard duties.

The intrusion of maintenance or other recreational tasks on the supervision responsibilities of the lifeguard is another factor in drownings in supervised areas.

The primary task of the lifeguard assigned to supervision duty is accident prevention and, secondarily, rescue response in an emergency. Since near-drownings and emergencies can occur at facilities with only a few patrons in attendance, lifeguards should never be assigned recreational or maintenance duties while they are a member of the surveillance team.

Attempting to reduce aquatic-related fatalities means realizing that the majority of a lifeguard's time is spent preventing people from placing themselves in dangerous situations or in engaging in hazardous behaviour. When the preventive work of a lifeguard is effective, potential life-threatening conditions are corrected before accidents occur. To the uninformed observer, however, a lifeguard engaged in surveillance work might appear less than fully occupied and therefore available for additional duties.

Administrators should be aware that any requirement that lifeguards perform non-supervision functions when they are, or should be, part of the surveillance team, sharply increases the chances of drownings and accidents. Asking a lifeguard on supervision duty to clean pool facilities, to rent umbrellas or chairs, take admission tickets, or give swimming lessons, is simply asking for trouble.



Lifeguards never perform maintenance and administration tasks while supervising swimmers.

c) Distraction.

Any distraction that takes the lifeguard away from active surveillance of bathers for more than a brief period must be viewed as a serious disruption in safety supervision. The lifeguard must detect the surface struggle of the drowning non-swimmer within seconds to keep a routine rescue from becoming serious or fatal. The consequence of inattention can be catastrophic. Educate patrons and friends to understand that you cannot talk at length with them and why you can not give them your undivided attention during brief exchanges.

WEATHER CONCERNS

Lifeguards need to be alert to weather conditions and have up-to-date weather forecasts to prepare for the hazards associated with certain types of weather. (See *Facility Evacuation* in Chapter 4. See *Weather* in Chapter 12.)

THE SUN

Lifeguards (and patrons) in outdoor facilities are at risk from the dangers of exposure to the sun. Ultraviolet radiation reflects off sand, water, and concrete and is present even on cloudy days.

Exposure to solar radiation can be extremely damaging to the skin causing sunburn, premature wrinkling, and skin cancer. The body defends itself by producing melanin which darkens the skin pigments (suntanning) adding protection from the sun. People with light or fair skin, which produces less melanin, are at greater risk from ultraviolet radiation.

Both suntans and sunburns are signs of skin damage. Even after the burn fades the damage remains and builds with each burn. The sun is the main cause of skin cancer (the most common cancer in Canada). It is significant that the Canadian Cancer Society advocates avoiding the sun as much as possible.

There are three types of skin cancer: basal cell, squamous cell, and the more deadly malignant melanoma. The first two, usually grow slowly and rarely spread, although the squamous cell can occasionally spread rapidly. Melanoma, on the other hand, can spread in the blood or lymphatic system.

Prevention and early detection are essential. Be alert for any unusual skin condition such as a sore that does not heal or a mole that darkens, changes shape, or becomes itchy. It is particularly important to prevent overexposure in children and teens. There is evidence that a single severe burn during childhood or adolescence may lead to melanoma later in life.

Protect yourself from the sun by using:

- covered towers or chairs
- umbrellas, parasols
- wide brimmed hats
- protective clothing
- sunglasses which are polarized and which block ultraviolet light
- sunscreens
- zinc oxide

Sunscreens are rated with a number according to a sun protection factor (SPF). The higher the SPF, the greater the protection. The Canadian Cancer Society recommends using a sunscreen with an SPF of 15 or higher.

CHARACTERISTICS OF DIFFERENT TYPES OF VICTIMS

While working as a lifeguard at Orchard Beach, Bronx, New York, Frank Pia studied the characteristics of tens of thousands of bathers who were drowning and being rescued. He classified their behaviour into two types: distress victims and drowning victims.

Descriptions of characteristics of different victim types serve as a guide to enhance victim recognition by lifeguards. All victims may not display all the characteristics described.

a) Distress victims.

The victim in distress is unable to return to safety without assistance usually because of fatigue, cramps or currents. But because of the distress victim's swimming or floating skills, he or she may attract the attention of the lifeguard, or of other nearby swimmers by calling for help or attempting to wave one or both arms.

Signs of distress include:

- Victim attempts to communicate distress by calling for help or waving an arm.
- Victim attempts to swim to safety, but with a weak or ineffective stroke. When a patron is observed making little or no progress, he or she is in distress.



Distress victims may signal for help.

- Victim seems in pain and holds his or her arm, leg, head, or stomach. Such victims might be suffering injury, shock, or both.
- Victim is visibly holding his or her breath, cheeks puffed out and not looking comfortable.
- Victim's face shows wide-eyed fearful look.

Lifeguards must remain alert for the initial signs of patrons in distress. Speedy recognition and response is vital. As victims of water accidents experience increased stress, they become more internally focused. Rapidly, they become oblivious to things going on around them. They become less accessible to visual, verbal, or supportive aids. Their actions become more and more sporadic and purposeless.

Without timely rescue, distress victims will progressively deteriorate and begin to demonstrate characteristics of the drowning victim.

b) Drowning victims.

The characteristics of a distress victim in trouble are different from those of the drowning non-swimmer. Drowning victims are unable to support themselves in water over their depth. They have no supportive swimming skills. Drowning victims can be either at the surface or submerged. Drowning victims are more difficult to recognize especially when located a considerable distance from the lifeguard.

Drowning victims can be passive or active. The passive victim, because of a sudden loss of consciousness, slips below the surface without calling out for help or struggling. Passive drowning may be caused by a blow to the head, heart attack, stroke, hyperventilation, cold water immersion or intoxication.

Frank Pia calls the classic behaviour exhibited by active drowning victims an "Instinctive Drowning Response". This active victim, a conscious drowning non-swimmer, exhibits the following behaviour:

- no call for help or wave
- upright body position
- non-supportive leg action
- vigorous arm movements either to the sides or extended in front in an effort to raise the head above the surface

- head tilted back; face turned toward shore or help
- face and eyes show panic

All data and reports of drowning and rescue incidents indicate that few drowning victims call for help. The drowning victim is reluctant to open his or her mouth to make a verbal cry for aid.

As the drowning progresses the victim's head sinks lower and lower in the water. The arm movements become less visible and more feeble, until only the top of the head and grasping hands can be seen. Indeed, the entire drowning behaviour can be almost invisible below the surface of the water. The process can last as long as 60 seconds or take as little as 10 seconds.

LOOKING FOR TROUBLE

Some patrons indicate by appearance or behaviour that they require close attention. Learn to recognize the indicators which help lifeguards anticipate and prevent problems or accidents.

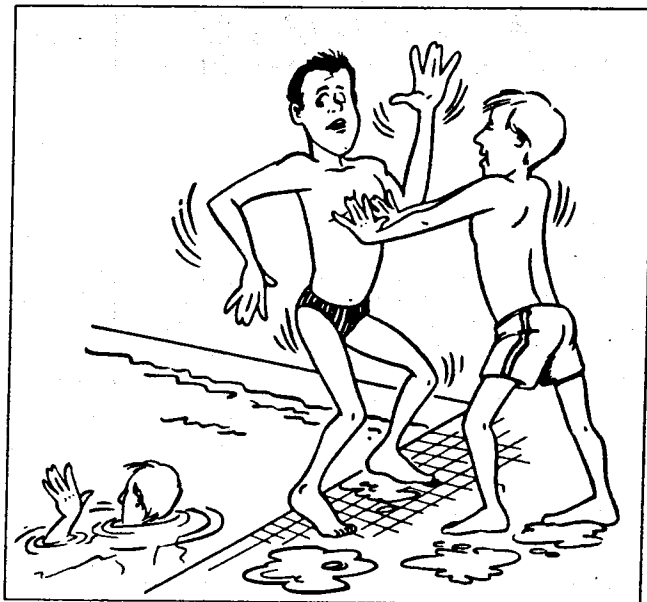
At waterfront facilities, because lifeguards know that specific bottom or water conditions can be sources of trouble, they can prevent or minimize accidents because of their ability to recognize potential danger.

Lifeguards, ordinarily located at some distance from the victim, must acquire the ability to recognize the need for assistance from afar. Despite uncertainty, always apply the principal rule of lifeguarding: whenever you suspect trouble, respond immediately. A response may be necessary when you see:

- Unusual gestures or facial expressions which suggest calls for assistance, for example, breath holding or a child with WIDE open eyes and a fearful expression.
- Poor swimmers with weak or ineffective strokes who stand up or look up frequently. Watch anyone moving from a horizontal to a vertical body position.
- Shallow water waders who do not like to get water in their face.
- Unsupervised children. Attend to any children who are carelessly supervised or who are playing in the water alone or near drop-offs. Whenever possible link these children with their parent or guardian. Reinforce with the parents their responsibility to supervise their children. Even with conscientious parents, it is often a lapse in supervision, not merely a lack of supervision which causes problems.
- Older adults who lack confidence in the water or who look frail.



Look for wide open eyes and a fearful look on drowning victims.



Rough play on wet decks can spoil the fun.

Submerge to push off the bottom and move towards shallower water.

e) **Carries.**

The goal in every rescue is the speedy support of the victim's face above the water and a quick transfer of lifeguard and victim(s) to the nearest point of safety. Safety means solid ground, such as the beach, shallow water, or edge of pool deck or dock. With any of these carries, the lifeguard can also use a rescue aid.

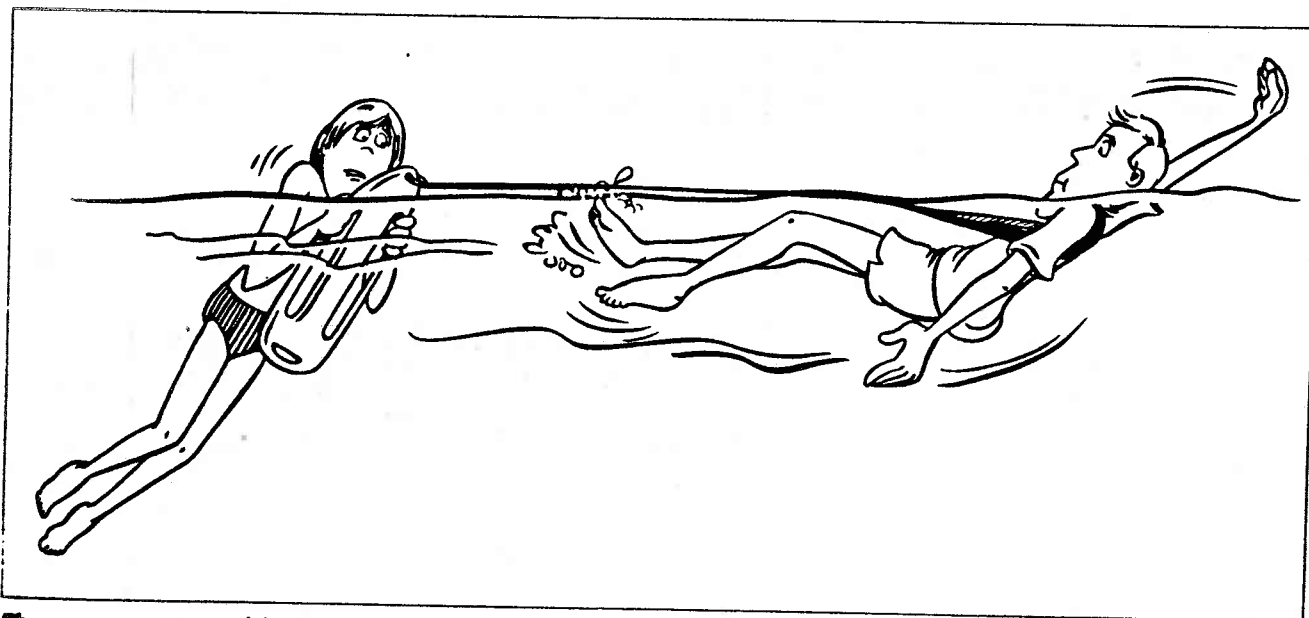
Various assistive carries may be used for weak or non-swimmers: underarm carry, chin carry, arm carry, tired swimmer carry. Assistive carries are suitable for pools and in calm waters. A swimmer tired or exhausted from over-exertion or cramp may be gently assisted to safety in this way.

The lifeguard can use a variety of control carries: double chin carry, head carry, cross chest carry, modified body carry, arm grasp carry, elbow carry. See *The Canadian Lifesaving Manual* for detailed descriptions of each of these carries.

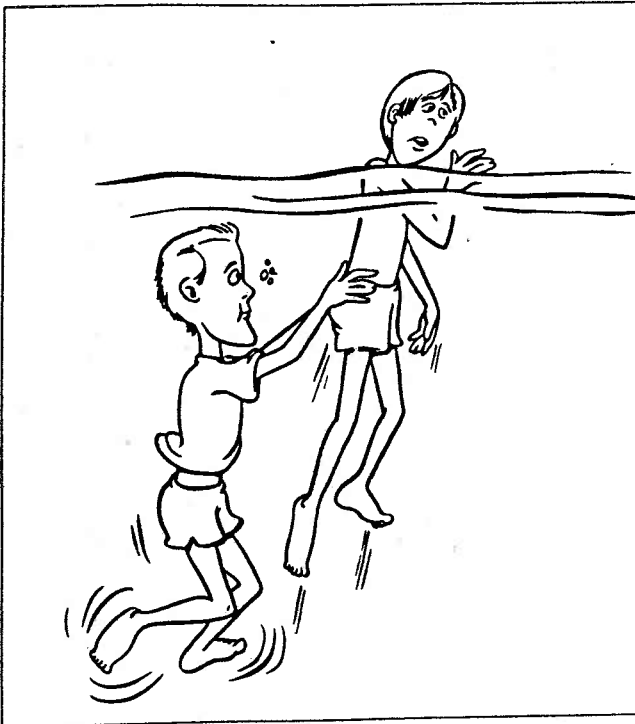
□ **Hip or "Pia" carry**

A control carry designed specifically for use by lifeguards is the hip or "Pia" carry. Approach the victim from behind and below, encircle the victim's waist with one arm and support the victim's

buttocks or thigh on your hip. This keeps the victim's head clear of the water while you swim to safety with a one-arm pull and a whip or eggbeater kick. The priority is to keep the victim's head (and shoulders) out of the water while staying low and behind the victim. The lifeguard should attempt to keep his or her head clear of the surface and reassure the victim while moving to safety.

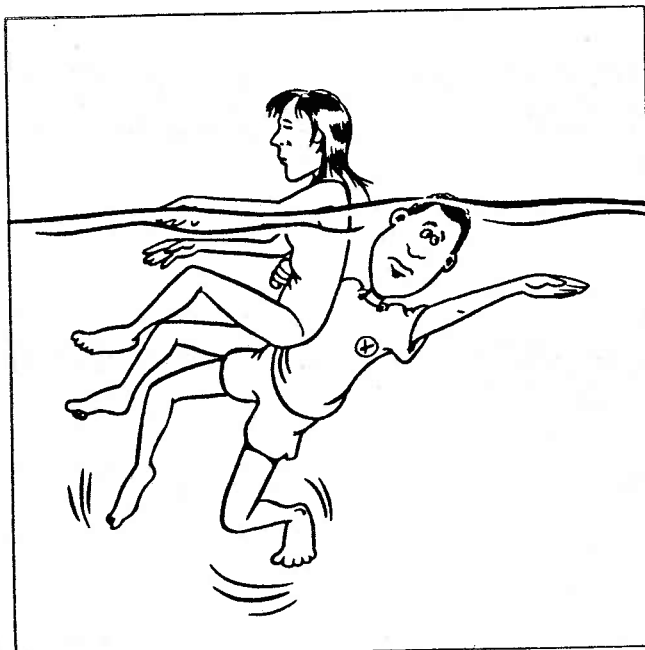


The rescue can provides good victim support, visual and verbal contact, and allows the rescuer to use both arms for swimming.



Push the submerged victim to the surface.

This carry is used only over short distances where safety can be reached within 10 - 15 m and when there is at least one other lifeguard available as back-up.



The hip or "Pia" carry provides good victim support over a short distance.

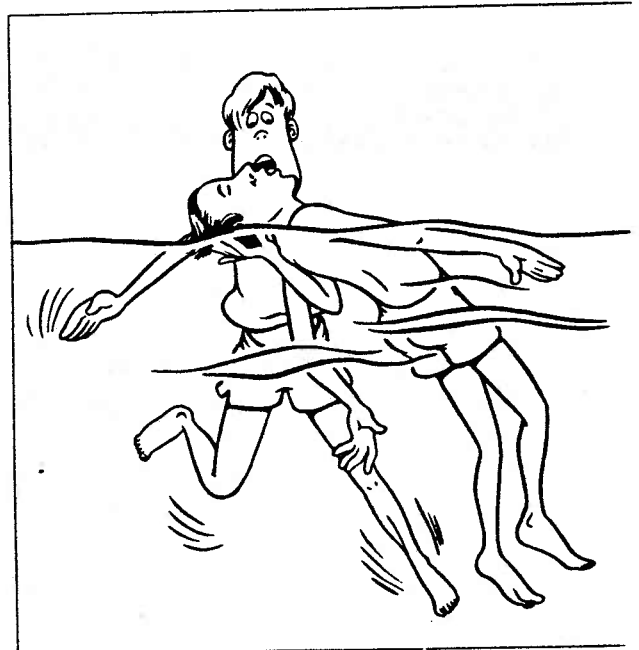
f) Non-breathing victims.

The priority in rescue of the unconscious non-breathing victim is to get the victim's head out of the water, the airway open and clear, ventilations assessed and maintained, and circulation assessed and maintained. Since these priorities are very difficult to execute in deep water or at the pool or dock edge, immediate movement to shallow water and/or removal from the water is essential.

The use of aids is dependent on their immediate availability and their potential to help or hinder in the approach and victim recovery.

The rescue breathing turnover and carry (with or without an aid) is an effective method for recovering an unconscious victim quickly to shallow water. Cover the victim's mouth and nose with one hand and ascend (if necessary), pushing off the bottom if possible.

Reach over the face-down victim's back with one arm (while still covering the victim's mouth with your other hand), and pull the victim towards you onto his or her back while sliding your arm over the victim's arm and under the victim's shoulder to support the victim's upper back



The rescue breathing carry provides control of victim's head and airway, while moving quick to shallow water.