



# Irish Water Safety

Sábhaitteach Uisce na hÉireann

# COLD SHOCK



# HYPOTHERMIA

Issued in the interests of safety by  
**Irish Water Safety, The Long Walk, Galway**

Irish Water Safety is the statutory, voluntary body established to promote water safety in Ireland.

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## Introduction

For people not used to cold water (temp. < 15°C), sudden immersion is associated with two problems, either of which may result in death from drowning.

On initial immersion, the shock of the cold water coming in contact with the skin ("Cold Shock") can result in incapacitation and drowning in the first 2-3 minutes. For those who survive this and are unable to get out of the water quickly, progressive body cooling leading to hypothermia will follow in time. The rate of onset will depend on water temperature and the protective measures you have taken to reduce body cooling.

This pamphlet gives advice on how to prevent these conditions in the first instance and what to do if you do find yourself a victim of either.

## Cold Shock

The term used to describe the initial response of a victim, unused to cold water after sudden immersion.

### Signs and Symptoms:

- Initial deep gasping
- Uncontrollable rapid breathing, with possible dizziness and pins and needles
- Panic
- A large increase in both heart rate and blood pressure.

### Dangers:

- Inhalation of water
- Drowning
- Stroke or heart attack

### Prevention:

- Use recognised 'man overboard' prevention equipment
- Wear approved lifejackets.
- Wear clothing with good insulating and waterproofing properties.
- Wear Immersion Suits (dry/wet)
- Hold on to some support and do not attempt to swim until symptoms have subsided (approx. 2 - 3min)
- Exit the water as soon as possible

### Follow up:

- Monitor airway, breathing and circulation
- Prevent further loss of heat
- Protect from wind
- Get medical help

## Hypothermia

Following immersion, first, the skin and limbs cool rapidly; then the heart, brain, and other deeper parts of the body cool. Hypothermia occurs when deep body temperature drops by at least 2°C. Body build, body fat, fitness level and types of clothing worn, all affect its rate of onset.

### Signs and Symptoms:

- Early dulling of sensation in hands and impaired muscle function
- Violent shivering with blueness around the lips
- Armpits very cold
- Muscles stiffness
- Lethargy and disorientation
- Slow and laboured breathing
- Pulse weakens but difficult to feel in any case because of cold

### Dangers:

- Impaired sensation & muscle coordination may impair some early vital lifesaving actions involving hands
- Loss of consciousness
- Drowning
- Cardiac arrest
- Death

**Note:** Do not assume a person is dead; they may only be in hibernation.

- Wear approved lifejackets.
- Wear Immersion Suits over warm clothing.
- Learn cold-water survival techniques (stay still with arms by sides and legs together – "HELP" position).
- Get out of water as soon as possible (life raft; upturned hull, or any other refuge in air)

### Follow up:

- Prevent further heat loss (enclose in plastic bag)
- Monitor airway, breathing and circulation
- Move victim to shelter and lie flat
- Insulate body and specially the head
- Remove wet clothing if dry replacements are available.
- If not :
  - Enclose body – except face – in large polythene bag or other waterproof material
  - Give warm sweet drinks if conscious, DO NOT give alcohol
  - Avoid rubbing the victim's body

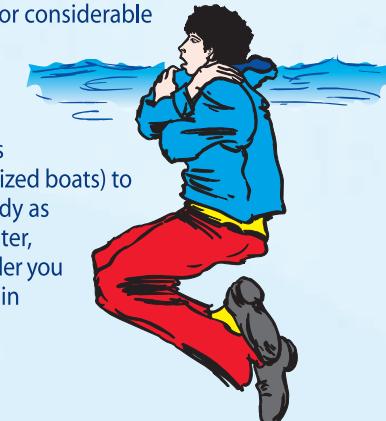
## Facts

- a) It takes only 15 to 30 minutes in cold water before the temperature of the heart, brain and internal organs begin to drop but skin and muscle temperatures cool far quicker, which may impair some essential early lifesaving actions.
- b) Children cool much faster than adults because they are smaller and have less fat. Boys usually cool faster than girls.
- c) Swimming may give a feeling of warmth but it accelerates muscle cooling. The body may produce more heat when swimming but it is also more quickly lost from the arm and leg muscles. Once these muscles cool, swimming becomes more difficult or impossible.
- d) Normal clothes will not produce much insulation against cold water, but they will slow down the rate of loss of vital body heat.
- e) Wearing approved Lifejackets, Immersion Suits and properly fitting Wet suits will decrease the likelihood of hypothermia for all water sports enthusiasts.

## Conservation of Heat in Water

Retention of heat in water:

- 1) Avoid swimming if possible; floating or treading water increase the chances of survival. Remain still by using trapped air in clothes as a buoyancy aid. Better still wear a lifejacket.
- 2) Clothes will slow down the rate of loss of vital body heat.
- 3) H.E.L.P. (Heat, Escape, Lessening, Position) – This position (legs together elbows to sides), may be adopted if wearing a buoyancy aid. It helps slow body heat loss in calm water.
- 4) Immersion Suits: Wet suits provide extra buoyancy and reduce heat loss for considerable time, but dry suits are better for long-term survival.
- 5) Use of floating objects (e.g. Swamped or capsized boats) to get as much of the body as possible out of the water, even if the air feels colder you will always cool faster in water.





# AN FUARSHUAITHEADH



# AN HIPITEIRME

Surtha amach as son leas na poiblóchta ag

**Cumann Sábháilteach Uisce, An Bóthar Fada, Gaillimh**

Tá Cumann Sábháilteach Uisce ina bhord deonach reachtúil a bunaíodh le sábháilteach uisce a chotú in Éireann.

## Réamhrá

Is féidir leis an té nach bhfuil mórán cleachtaidh aige titim in uisce fuar (teocht <15°C) agus fuarshuaitheadh agus hipiteirme a fhulaingt. I ngach cás is féidir bás a fháil.

Ar an gcéad tumadh duit, baineann an t-uisce fuar geit thobann asat agus do chraiceann i dteagmháil leis. Is féidir leat an cumas ionat a bhaint asat agus dá bharr sin bháfaí thú faoi cheann 2-3 nóiméad. Nuair nach bhfuil an seans agat éalú ón uisce in am fhuaraíonn do chuid fola agus tiocfaidh hipiteirme ort tar éis tamaill. Braitheann an t-am a thiocfaidh sí ort ar theocht an uisce agus ar a ndearna tú chun tú a chosaint ón bhfuacht.

Tabharfaidh an paimflead seo comhairle duit chun tú a chosaint ón dá rocht thuslauite i dtús báire agus dá dtiocfaidís ort, an chaoi chun tú féin a shábháilt.

## An Fuarshuaitheadh

Seo téarma chun cur síos a dhéanamh ar an rocht a thagann ar an té nach bhfuil cleachtaidh aige dul isteach in uisce fuar go tobann.

Comharthaí agus Airíonna:

- Cneadanna nó saothar anála ar dtús
- Análú tapaidh dosmactaithe agus uaireanta le mearbhalla agus eanglach
- Easpa treo nó eagair
- Ardú mór ar ráta croí agus ar bhrú fola

Contúirtí:

- Análú uisce
- Bá
- Stróc agus taom croí

Bealaigh chun é a chosc:

- Bain leas ag gnáthfhearsas le duine thar bord a shábháilt
- Caith casgó slándála
- Caith éadaí fuar/uiscedhíonacha
- Caith Tumchulaith (tirim/fliuch)
- Coinnígh greim ar thaca snámhachta agus ná déan snámh go n-imí na hairónna uait (timpeall 2-3 nóiméad)
- Amach leat ón uisce chomh sciobtha agus is féidir

Criochnú na hoibre:

- Tabhair aire do na haerbhealaigh agus do imshruthú na fola
- Cuir stop le haon chailliúint teasa
- Cosain tú féin ón ngaoth
- Cuir fios ar an lucht leighis

## An Hipiteirme

Tarlaíonn sé seo nuair a thíteann teocht na colainne níos ísle ná 2°C. Fuaraíonn an craiceann agus na géaga in uisce ach tarlaíonn Hipiteirme nuair a fhuraíonn an croí agus an inchinn. Méid na colainne, saill na colainne, aclaíocht an duine agus na héadaí atá á gcaitheamh ag an duine is iad is mó tionchar ar an gcaoi a dtosaíonn sé.

Comharthaí agus Airíonna:

- Bodhrú mothúchán sna láimha ar dtús agus drochfheidhm sna matáin
- Creatha fuachta tréana le hath gorm ar na beola
- Ascaill rí-fhuara
- Cruaíonn na matáin
- Spadántacht agus mearbhalla
- Análú atá saothraithe
- Cuisle lag agus deacair í a mhothú de bharr na fuachta

Contúirtí:

- Drochmhothú agus drochfheidhm sna matáin a chuireann bac ar iarracht tú a shábháilt le láimha
- Titim i bhfanntais gan aithne
- Bá
- Taom croí
- Báis

**N.B. Ná glac leis go bhfuil an duine básaithe. B'fhéidir go bhfuil sé díbheo.**

Bealaí chun é a chosc:

- Caith casoga tarthála
- Caith Tumchulaith thar éadaí teo
- Foghlaim bealaí le maireachtáil i bhfuaruisce (Fan socair agus na géaga le do thaobh agus an chuma "T.E.A.C.S. (Teas, Éalú, An Crapadh, Suíomh)" ort)
- Ámach leat ón uisce chomh sciobtha agus is féidir (rafta tarthála, bád le béal faoi nó cibé rud eile cóngarach duit)

Criochnú na hOibre:

- Ná lig níos mó teasa as an gcolainn (cuir pláisteach thar an gcolainn)
- Tabhair aire don analú, do na haerbhealaí agus do imshruthú na fola
- Aistrigh an duine chun foscaidh agus coinnigh ina luí é
- Clúdaigh an cholainn go háirithe an ceann
- Bain na héadaí flúcha de má tá éadaí tirime ar fáil. Mura bhfuil:
- Clúdaigh an cholainn – seachas an aghaidh – i mala polaitéine nó le hábhar uiscedhíonach eile
- Tabhair deochanna teo milse don duine má tá mothú ann
- Ná tabhair alcól dó
- Na cuimil colainn an duine

## Fíricí

- a) Ní thógann sé ach idir 15 agus 20 nóiméad in uisce fuar sula dtíteocht na fola sa chroí, san inchinn agus sna baill inmheána. Ach fuaraíonn an craiceann agus na matáin i bhfad níos sciobtha, rud a d'fhéadfadh cur isteach ar bheatha a shábháilt.
- b) Fuaraíonn leanaí i bhfad níos sciobtha toisc go bhfuil siad níos lú agus nach bhfuil mórán saille iontu. De ghnáth fuaraíonn na buachaillí níos sciobtha ná na cailíní.
- c) B'fhéidir go gcuireann an snámh teas ionat ach luatháinn sé fuarú na matáin. B'fhéidir go dtugann an snámh teas do do cholainn ach nuair a dhéanann tú snámh cailltear an teas níos sciobtha ó matáin na láimh agus na gcos. Dá fhuaire a éirionn na matáin is ea is deacrá nó dodhánta an snámh a dhéanamh.
- d) Ní thugann gnáthéadaí mórán cosanta in aghaidh uisce fhuair ach moilleann siad ráta chailliúna beath-theasa ón gcoláinn.
- e) Nuair a chaitear casoga tarthála, tumchultacha, agus fliuch-chultacha oiriúnacha laghdaíonn sé an seans go dtiocfadh hipiteirme ar aon diograiseoirí a dhéanann spórt farraige.

## Caomhnú Teasa san Uisce

- 1) Ná tabhair faoin snámh más féidir. Nuair a fhanann tú ar uachtar an uisce nó má dhéanann tú snámh i do sheasamh tugann tú seans níos fearr duit tú féin a choinneáil beo. Fan socair trí aer a ghastiú in éadaí mar thaca snámhachta.
- 2) Cuireann éadaí moill ar chailliúint teas na colainne.
- 3) T.E.A.C.S. (Teas, Éalú, An Crapadh, Suíomh)
  - Is féidir an chuma sin a chur ort (cosa le chéile agus uillinnéacha le do thaobh) agus tú ag caitheamh gléas snámhachta. Laghdaíonn sé cailliúint teas na colainne in uisce ciúin socair.
- 4) Tumchultacha: Tugann tumchultacha snámhacht bhreise agus laghdaíonn siad cailliúint teasa ar feadh ama cuíosach fada ach tugann Tirimchultacha seans níos fearr duit maireachtáil níos faide.
- 5) Tóg rud ar bith atá ar snámh romhat (m.sh. bád ar thiontaíodh béal faoi agus a leithéidí) chun do cholainn a choinneáil as an uisce. Cé go bhfeictear duit go bhfuil an t-aer níos fuaire ná an t-uisce fuaraíonn do cholainn níos sciobtha san uisce.

