FACT SHEET No. 17

EVERYONE CAN BE A LIFESAVER

Royal Life Saving
THE ROYAL LIFE SAVING SOCIETY AUSTRALIA

www.royallifesaving.com.au

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HYPOXIC BLACKOUT & HYPERVENTILATION

Q. What is Hypoxic Blackout?

A. Hypoxic Blackout is a sudden and severe reduction of oxygen to the body and it dramatically affects brain function, leading to unconsciousness which can be followed by brain damage then death. We all have the urge to breathe, but this can be overridden in a swimmer when concentrating on a purposeful goal, where the swimmer ignores the physiological warning symptoms telling them to breathe. When Hypoxic Blackout occurs the swimmer slows down, and then loses consciousness.

Q. Under what circumstances can Hypoxic Blackout occur?

A. The oxygen in a persons body drops to such a level that unconsciousness occurs. When someone holds their breath, the Carbon Dioxide (CO_2) levels in their bloodstream rise. This causes the urge to take a fresh breath (intake Oxygen and expel CO_2). If they do not take a breath hypoxic blackout occurs.

Q. What is hyperventilation?

A. Hyperventilation occurs when a person takes quick, deep breaths. This reduces the CO_2 in the blood which is usually used as the normal stimulus to breathe. This is very dangerous because hyperventilation does not increase oxygen levels in the blood.

Q. Why is hyperventilation dangerous?

A. With low CO_2 levels the body has to rely on low oxygen levels as a stimulus to breathe which may not be reached before unconsciousness.

Q. Does hyperventilation increase oxygen stores?

A. No, hyperventilation removes CO_2 but does not increase oxygen stores. For this reason and the danger involved, Royal Life Saving does not recommended people ever engage in hyperventilation.

Q. Is Hypoxic Blackout common?

A. Hypoxic blackout incidents have recently been recorded while people were training for the sport of "free diving" or engaging in underwater breath holding contests. A male died in similar circumstances while training for underwater hockey.

Q. Is Hypoxic Blackout dangerous?

A. Yes, it can lead to death.

Hypoxic Blackout is a lack of oxygen to the brain which leads to unconsciousness, and if it occurs while in the water, can lead to drowning. Hypoxic Blackout occurs when people underwater are pushing themselves to hold their breath, they ignore their bodies signals telling them to breathe and lose consciousness. When they next take a breath their lungs fill with water and they drown.

Hypoxic Blackout CHECKLIST:

If you think a person has been a victim of hypoxic blackout what should you do?

*Victims of hypoxic blackout should be treated as you would treat a normal drowning using **DRABCD.***

- ☐ ***Danger** – Check for danger, to self, to bystanders, to victim*
- ☐ ***Response** – shout "Are you ok?" and gently squeeze the victim's shoulder*
- ☐ ***Airway** – Clear & maintain*
- ☐ ***Breathing** – Look, Listen & Feel*
- ☐ ***Compressions** – If no signs of life commence CPR*
- ☐ ***Defibrillation** – where available grab a defibrillator and follow the prompts*

Royal Life Saving has developed a number of fact sheets on water safety issues in Australia. Contact Royal Life Saving on:

1300 RESQ ME
(1300 7377 63)

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For further information visit **www.royallifesaving.com.au**