



RESCUER

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*"QUEMCUNQUE MISERUM VIDERIS HOMINEM SCIAS"
"WHOSOEVER YOU SEE IN DISTRESS RECOGNISE IN HIM A FELLOWMAN"*

The **24th SLSS LIFESAVING TEACHERS' COURSE (LTC) '11** was held over 8 training sessions from 3rd to 19th of October 2011. A total of 11 trainees participated in this series of LTC trainings.

Training topics/modules included updates in lifesaving development, CPR techniques, lifesaving instructional skills for higher lifesaving awards and also the open-water rescue skills.

Course trainees needed to demonstrate higher competency and in depth knowledge for the various lifesaving subjects in order to be successful.



Message From The Editor



Another issue has been successfully done. Thanks to all the wonderful contributors who provided valuable insights and experience on life saving. I also urge the other member to play a more active role by either actively involved in lifesaving teaching or if time permits pen some of your experiences in the coming issue so that other members can benefit from you. Once again I thank everyone for your dedication in this noble cause of volunteering your time and energy in lifesaving.

Lye Weng Hon

The SLSS invites articles and photographs on lifesaving related issues for the RESCUER. Proposed articles may be submitted to the SLSS office in MS Word format in a CD Rom or by email. Please note that the SLSS reserves the right to edit the article as may be appropriate and by submission, authors grant to the SLSS a right to publish their articles and/or photographs in the RESCUER and any other publication or medium of the SLSS

Advertisements on lifesaving related subjects are also welcomed and interested persons are asked to contact the SLSS @ 6299-3660 or email: slss@pacific.net.sg for more information on the prevailing rates.

Editor

Editorial Board

Publisher	The Singapore Life Saving Society
Editor	Lye Weng Hon
Managing Editor	Alfred Chua
Website	www.slss.org.sg
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The SLSS seeks to fill the following positions:

Manager / Deputy Manager / Senior Executives

- At least an 'A' level certificate or a Diploma
- Preferably possess lifesaving bronze medallion award or alternatively, able to swim at least 200m in any recognised stroke
- Willing to undergo training in first aid & lifesaving for those without first aid and lifesaving background
- Computer literate

Office located at Geylang Bahru Lane. Interested parties please call: 6299-3660 or email resume to slss@pacific.net.sg.



~ ~ Invitation to Volunteer ~ ~

The Singapore Life Saving Society's work would not be possible without the generous help from the many volunteers who serve us in different ways and we would like to thank them for their contributions.

We would also like to take this opportunity to invite anyone who is interested to contribute to the mission of the Society to let our Senior Manager, Mr Alfred Chua, know so that we can try to involve you in our work.

Please see our website and the latest annual report for information on the various things that we do. Kindly also do not hesitate to contact Mr Alfred Chua or any of the Executive Committee members if you have any queries.

We look forward to working with you in our mission to promote lifesaving and water safety.

Richard Tan Ming Kirk
President
The Singapore Life Saving Society



Hyperventilation

by **CPT(NS) Ng Chuen Ser** (email: instructor@v3club.org)

Chief Instructor, V3 Aquatic Club. Lifesaving Teacher, Singapore Life Saving Society.

Certified Instructor: British Sub-Aqua Club, Divers Alert Network, St John Ambulance, & Singapore Medical Association.

Introduction

Shallow water blackout (syncope or fainting) is loss of consciousness caused by cerebral hypoxia towards the end of a breath-hold dive, when the swimmer does not necessarily experience an urgent need to breathe and has no other obvious medical condition that might have caused it. Shallow water blackout can easily lead to drowning.

Although the body requires oxygen (O₂) for metabolism, low O₂ level normally does not stimulate breathing. Rather, breathing is triggered by rising carbon dioxide (CO₂) level in the bloodstream. As a result, cerebral hypoxia can lead to syncope without ever experiencing air hunger. There is no bodily sensation that warns a swimmer of an impending blackout.

Hyperventilation before apnea dive escalates the risk of shallow water blackout. It artificially depletes CO₂, causing a low blood carbon dioxide condition called hypocapnia. Hypocapnia reduces the reflexive respiratory drive, allows the delay of breathing and leaves the swimmer susceptible to loss of consciousness from hypoxia.

Chemistry

pH (power of Hydrogen) is the measurement of the acidity or basicity of an aqueous solution. <http://en.wikipedia.org/wiki/PH> - cite_note-Bates-0 Pure water (H₂O) is neutral, with a pH close to 7.0 at 25°C. Solutions with a pH lower than 7 are acidic and solutions with a pH greater than 7 are basic or alkaline.

However, water that has been exposed to air is mildly acidic. This is because carbon dioxide (CO₂) dissolves in water to form carbonic acid (H₂CO₃), which dissociates into bicarbonate (HCO₃⁻) and hydrogen ions (H⁺).



Carbon dioxide + water \rightleftharpoons carbonic acid \rightleftharpoons bicarbonate + hydrogen ions

Biology / Physiology

The pH of blood is regulated to stay within the narrow range of 7.35 to 7.45. The most common disorder in acid-base homeostasis is acidosis, which means an acid overload in the body, generally defined by pH falling below 7.35.

Alkalosis refers to a condition in which there is reduced hydrogen ion concentration of arterial blood plasma (alkalemia), generally when pH of the blood exceeds 7.45. This acid-base balance is finely tuned by a number of homeostatic mechanisms, including the bicarbonate buffering system.

A person's breathing rate influences the level of CO₂ in his blood. Breathing that is too slow or shallow causes respiratory acidosis; while breathing that is too rapid leads to hyperventilation, which can cause respiratory alkalosis.

CO₂ is one of the mediators of local autoregulation of blood supply. If its level is high, the cerebral vessels dilate (vasodilatation) to allow a greater blood flow. Conversely, low concentration of CO₂ in the blood (hypocapnia) raises the blood's pH value; this alkalinisation of the blood causes vessels to constrict (vasoconstriction).

This shift in the CO₂ chemistry associated with hyperventilation causes physiological changes such as hypoxia, cerebral constriction, coronary constriction, blood and cellular alkalosis, cerebral glucose deficit, ischemia, buffer depletion, bronchial constriction, calcium imbalance, magnesium deficiency, muscle spasms, and fatigue.

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Hyperventilation

Hyperventilation

Hyperventilation can be brought about voluntarily, by taking many deep breaths in rapid succession.

Hyperventilation can also occur involuntarily:

When someone exercises over his VO₂ max, unable to transform oxygen into energy beyond a certain level but hyperventilate in an effort to do so.

Also, while experiencing excitement or anxiety, the body releases the hormone epinephrine (adrenaline) leading to responses including hyperventilation.

Conclusion

Safety practices like the following should be observed:

•Before dive:

- Do not perform hyperventilation voluntarily.
- Take a moment to relax and allow blood oxygen and carbon dioxide to reach equilibrium.
- Breathe absolutely normally; allow the body to dictate the rate of breathing to make sure the carbon dioxide level is properly calibrated.
- If excited or anxious about the dive, take extra care to remain calm and breathe naturally.

•During dive:

- When the urge to breathe comes on near the end of the dive, immediately seek access to air.
- Never dive alone. Dive in buddy pairs; when one is diving, the other is to supervise at all time.

•Buddy pairs must both be proficient in rescue and cardiopulmonary resuscitation (CPR).

References

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15th Lifesaving Update cum Examiners' Workshop '11

Feedback on Seminar 2011 by **Bob Lim Joo Yam**, Grade 1 Examiner

I would like to share some thoughts on the seminar which was held on 11/11/2011. Seminars are an essential component of learning experience. We are indeed fortunate to have so many lifesavers that share the same passion, share their skills and knowledge willingly with the lifesaving community during such annual gatherings.

Alfred Chua invited me to write something about the seminar. I told him that I would share the most of what I could recall. I would give a sincere and frank view, so as to identify areas for improvement.

During the break, many of us gathered in small groups, and exchanged ideas and discussed numerous topics of the day, including those raised in the seminar. In my books, it was a complete success in the morning, but the afternoon session, which I would further elaborate. It was a letdown.

First of all, I would like to say that I enjoyed the seminar. This year's seminar topics were a refreshing change from the previous year. The spark that interest me the most was the item on "Recent developments in lifesaving & water safety 2011" presented by Mr Richard Tan. This was something very relevant, very refreshing and significant for members to enlarge their reservoir of knowledge. The info was useful both professionally and personally. I feel refreshed as a lifesaver. Well done Richard.

I was very impressed by the report presented by the both Mr Lim Kim Seng and Mr Jimmy Tan sharing their participation from the World Conference on Drowning Prevention 2011 in Danang, Vietnam. The simple presentation allowed us to learn from the Vietnamese, that there was different way to improvise rescue techniques, far beyond our imagination. I did not want to leave to go to the toilet for fear that I would miss something. Good job to both of them; I find this a very enjoyable topic.

Many people avoid investing in Personal Life insurance or Indemnity Insurance simply because they thought the costs as being too high for their budgets. Fortunately, there are a wide variety of insurance policies available for every set of needs and budgets. All you have to do is choose one that suits you. For many of us who are teaching lifesaving, it is rather important to have a second thought about investing in such policy. It is very timely; SLSS invited Mr Philip Ng to talk about Professional Indemnity Insurance during the seminar. Ask ourselves these:- don't we realise how much money is going to cost when we are caught in a court case if there is negligent during lesson? Won't you think of your family if you lose your job? Why wait for it to happen before deciding what to do or to search for help? Insurance is there for your protection and to give you a piece of mind. To me this is the most valuable issue of concern.

Next, I like to say that I enjoyed the paper on "Dangerous Marine Life Commonly Found in Singapore Waters" by Julian Ong and Quek Chee Boon. This topic is also very close to my heart. I used to go to the beach during my younger days without understanding that there was danger always lurking in, on or under the water. To me, this is exceptionally useful information to me. Good choice.



15th Lifesaving Update cum Examiners' Workshop '11 . . .

Every year, participants look forward to the opportunity to meet the Chief examiner and have a dialogue with him during the Examiners' Workshop. This year was a big disappointment as the Chief Examiner was unavailable. Members had hoped to seek more views from him on how to resolve some of the ongoing conflicts encountered during the lifesaving tests but will have to wait for next year's seminar. What is the core purpose of the workshop, if not for improvement? Participants of the workshop took part earnestly, and gave their personal accounts of their efforts in managing issues and conflicts. With the absence of the Chief Examiner to chair the meeting, the lack of sincerity somehow belittles the purpose of the workshop and its intentions for improvement. It did not help that the discussions were without any agenda, nor were they followed up from last year's feedback. The conduct of examination is always a HOT topic for discussion in our lifesaving fraternity. This session was poorly organised.

The following areas need some improvement:-

a. Registration

Since everyone who was attending the seminar would get a free file, writing materials etc. Why not place them on the chair for the participants when they take their seats. This can help to prevent a built up during registration and unnecessary delay. What the participants have to do is to sign in and go straight into the conference room. (this may not be appropriate as we have cases in the past where members collected more than the fair share and also, we cannot accurately anticipate the nos. of participants turning up and where they would sit. The built up in the queue was because every one try to rush in just before the workshop commenced, which is not an uncommon sight elsewhere.)

b. Examiner workshop

The examiner workshop must have the following:-

- i. Agenda.
- ii. Reports on the previous year feedback.
- iii. Provide New Development to share with the members.
- iv. Forming groups for round table discussion.
- v. Chief Examiner

Perhaps, the examiners' workshop should be separately organised. Future workshop should have a better integration among members for them to brainstorm ideas for development. A well organised Workshop will motivate members to be better committed and have the desire to serve and expand.

Conclusion

Seminar is all about sharing, learning and keeping up with the latest information. I would like to suggest that SLSS form a committee to look into the organisation for next year's seminar. There must be a theme so as to draw up the seminar topic. Theme for the seminar must be useful as well as applicable in the lifesaving fields of research and relevant to solution to achieving future direction. At the end of the day, we want of ask ourselves: what have I learned from the seminar. How important is the topic? Did this seminar make a significant contribution? I hope that you understand what I'm trying to say, even without such minimal academic rigour. What do you think about this? Maybe some of you have interesting articles covering these issues? Perhaps some of you disagree? Or maybe you have something to add?



Temasek Polytechnic Lifesaving in the 34th National Lifesaving Championship 2011

By **Pamela Loh**, Captain, TP Lifesaving Team
(All photographs courtesy of Temasek Polytechnic)

The Temasek Polytechnic Lifesaving Team participated in the 34th National Lifesaving Championship 2011 organized by the Singapore Lifesaving Society. The Still Water Competition (SWC) was held on 21st August 2011 while the Open Water Competition (OWC) was held on 24th and 25th September 2011. The champion of the competition was decided by points that teams could accumulate, and points were allotted according to positioning (1st place: 9 points, 2nd place: 7 points, 3rd place: 6 points and so forth). The venues for the competitions were Kallang Basin Swimming Complex for the SWC and Siloso beach, Sentosa for the OWC.

Going into the SWC competition the team was confident riding on the success of the 12th NUS Invitational Lifesaving Championship 2011, where TP had a clean sweep of the 'A' Division Men's, Women's and Overall trophies. Indeed TP had a good showing at the SWC with 3 National Records, 12 Gold, 4 Silver, 3 Bronze and lead in both the Men's and Women's with a combined accumulated point of 193 and a massive 74 points ahead of the next team after an intense day of competition. However a chink in the armour was starting to show, TP Women's team was only a mere 6 points ahead of the next Women's team.



The team's capabilities were put to the ultimate test during the OWC under the scorching sun at Sentosa. It drained the last remaining energy from every competitor present. Nonetheless, under the sweltering weather, the Team Temasek spirit was un-wavered, and we gave our best. Yet the chink in the armour had developed into a crack.



TP, traditionally stronger in the swimming pool, was starting to lose ground to other teams on the beach. They fought hard to grasp onto the slipping title. In the Ironman event, regarded as the toughest event, two of our Men successfully fended off other teams, clinched podium positions and won the OWC narrowly by 1 point, and in doing so emerged the Overall Men's Champion.

For the Women's team it was a roller coaster ride event after event. With only a mere 6 points lead the Republic Poly's Women's team caught up and in a dramatic ending in the final event, Beach Sprint, tied with TP Women's in points after the entire competition! But the team with the higher number of Gold medals winning, served as a tie breaker, and The TP Women's was announced as the Overall Women's Champion.



Temasek Polytechnic Lifesaving in the 34th National Lifesaving Championship 2011 . . .

At the end of the Championship, TP bagged a total of 17 Gold medals, 6 Silver medals and 6 Bronze medals, and 3 National records.

It has been three years since TP had a clean sweep of all three trophies: Men's and Women's, and the Overall Champion trophy. We learnt a lot of valuable lessons, and the whole team, (including the juniors who came down to support us and witness the competition for themselves) got to savor the sweet taste of glory when TP was announced Overall Champion for the National Lifesaving Championship 2011. On the bus ride back to home ground, everyone was experiencing the same emotion, really tired, but really contented as well.

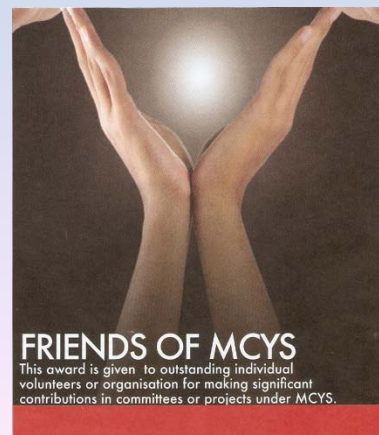


MCYS honours volunteers for their service to the community

The SLSS President, Mr Richard Tan Ming Kirk, has been presented The Friend of MCYS Award at an appreciation ceremony for MCYS Volunteer Awards 2011. The event attended by 400 guests, was hosted by Mr Chan Chun Sing, Acting Minister for Community Development, Youth and Sports. Mr Chan presented the awards to the volunteers, together with Minister of State Mdm Halimah Yacob and Senior Parliamentary Secretary Mr Sam Tan.

In its Press Releases, the MCYS says "This annual award is presented to individual volunteers or organisations which have made significant contributions to committees or projects under the purview of MCYS. The volunteers/organisations receiving this award have served in the Ministry's committees for a period of at least two years and have made significant contributions to the success of specific programmes or projects under MCYS."

Congratulation, Richard!



SLSS Lifesaving Activities Schedule for Year 2012

Corporate CPR Course		Preliminary Module (Lifesaving 1, 2 & 3)	
Duration: 1 session Time: 9am to 5pm (Saturdays) Dates: 14/1, 18/2, 10/3, 24/3, 21/4, 19/5, 23/6, 14/7, 18/8, 8/9, 22/9, 20/10, 10/11, 15/12		Monday Wednesday Friday Tuesday Thursday Monday	Duration: 10 sessions x 2hrs Time: 6.30pm to 8.30pm 9/1 and subsequently on every Mon. 7/3 and subsequently on every Wed. 11/5 and subsequently on every Fri. 17/7 and subsequently on every Tue. 13/9 and subsequently on every Thu. 5/11 and subsequently on every Mon.
CPR + AED Course			
Duration: 1 session Time: 9am to 1pm or 5pm to 9pm Dates: 9/1, 7/2, 8/3, 13/4, 14/5, 12/6, 20/7, 13/8, 18/9, 25/10, 23/11, 10/12			
Oxygen Resuscitation Course		Lifesaving 1, 2, & 3 Refresher Course	
Duration: 1 session Dates: 17/3, 21/7, 17/11 Time: 9am to 5pm (Sat)		Duration: 1 session Time: 9am to 6pm Dates: 13/2, 21/4, 7/6, 12/8, 19/10, 17/12 Pre-requisite: Candidate <u>MUST</u> have already possessed Lifesaving 123 certification.	
Lifesaving Seminar			
Duration: 1 session Dates: 16/3 Venue: To be confirmed Time: 9 am to 5 pm			
Lifesaving Update Workshops		Workshop on Instructor Self-Assessed-Scheme	
Duration: 1 session Dates: 9/5, 16/5; 3/10, 10/10 Venue: To be confirmed Time: 6 pm to 9 pm		Duration: 1 session Dates: 9/5, 16/5 Venue: To be confirmed Time: 6 pm to 9 pm	
Lifesaving Training cum Examiners' Workshop		Induction on Aquatic Activities for People with Disabilities	
Duration: 1 session Dates: 16/11 Venue: To be confirmed Time: 9 am to 5 pm		Duration: 1 session Dates: 18/5, 12/10 Time: 6.30pm to 9pm	
25th Lifesaving Instructor Course		35th National Lifesaving Championship	
Duration: 12 Sessions Dates: 9/5, 11/5, 14/5, 16/5, 18/5, 21/5, 23/5, 25/5 (Proficiency Test). Time: Proficiency Test session - 6.15pm to 9pm. The remaining sessions - 6pm to 9pm. Venue: To be confirmed		Still-Water Competition (SWC) Day/Date: Sunday, 26 August 2012 Venue: Kallang Basin Swimming Complex (<i>tentative</i>) Time: 8am to 5pm Open-Water Competition (OWC) Day/Date: Saturday, 15 September 2012 (Heats) Venue: Siloso Beach, Sentosa Island (<i>tentative</i>) Time: 8am to 5pm Day/Date: Sunday, 16 September 2012 (Finals) Venue: Siloso Beach, Sentosa Island (<i>tentative</i>) Time: 8am to 5pm	
25th Lifesaving Teacher Course			
Duration: 8 sessions Dates: 3/10, 5/10, *7/10 (Open-Water - Sun), 8/10, 10/10, 12/10, 15/10, 17/10. Time: All sessions - 6pm to 9pm, except the session on 7/10 - 9am to 1pm.			
Free Lifesaving Clinics at SENTOSA (a community service program in partnership with Sentosa Leisure Group)		Note: All dates are tentative and subject to terms and conditions of registration. Please visit Singapore Life Saving Society's website: www.slss.org.sg or call +65 6299 3660/email < slss@pacific.net.sg > for further updates. Lifesaving Training Center, Kallang Basin Swimming Complex will be the venue for all courses unless otherwise specified.	
Dates: Last Sat of the month - 28/1, 25/2, 31/3, 28/4, 26/5, 30/6, 28/7, 25/8, 24/9, 27/10, 24/11, 29/12 (Sat) Venue: 1pm at Siloso Beach, Sentosa. 3pm at Palawan Beach, Sentosa.			