



WINDY CITY SEALS SCUBA DIVING CLUB

The **DIVE PLAN**



New 2014 Seals Calendar (top); Seals members get ready for NABS 2013 Summit in Roatan, Honduras; and Seals members explore the realms of a hyperbaric chamber dive at a regional healthcare facility.

Good Things to Come

As 2013 comes to a close, I am very optimistic about 2014. This is not just some mundane remark just to fill in space or words on paper. I'm very sincere about the prospects of 2014 and the direction of the club. For certain there have been a few bumps in the road, first being that we haven't settled down in a new place as yet, and club participation in some activities has not been where I would like it to be. I guess one can say that the club is going through some growing pains. Be that as it may, I know if we stick together as a unit like we've done in the past, there is nothing the Seals cannot resolve.

This column comes just before the NABS Summit at Fantasy Island in Roatan, Honduras. I look forward to the dives and friendship normally shared at these types of adventures. This year's annual dive trip is being shared with NABS; however, Michele Dowdy is working on next year's dive trip pending club approval. If you weren't able to make this year's trip with NABS, please plan for next year's trip with the Seals. Whether or not diving in a quarry or the ocean, the sport of diving still gets me excited as it did the first time I dove. If I don't see you at Fantasy Island, I look forward to seeing you at the Christmas party. This will be a great function to introduce any new member prospects to meet the rest of us. So, please invite them. Goodbye for now.

Safe diving to all!

Marvin

Marvin E. Martin, Sr.
President

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Windy City Seals SCUBA Diving Club Chicago, IL

Mission Statement

To create a network of people and resources that provides educational experiences that enhance and promote an appreciation of diving and an awareness of the aquatic environment. This network will build unity and camaraderie to transfer the legacy to future generations.

The DIVE PLAN

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The purpose of The DIVE PLAN is to inform WCS members about current club business, dive safety, travel, the larger dive community, and resources that will enhance our overall diving experience. The newsletter is published four times per year, and is distributed to the entire WCS membership and friends of WCS by e-mail and posted on the WCS web site. Special issues may be published between scheduled distribution.

Content (articles, photos and other contributions) should be submitted each quarter to TheWCS DivePlan@hotmail.com or to newsletter staff at WCS Club meetings. Articles should be typed and no more than one page. The DIVE PLAN reserves the right to edit content for clarity, space and appropriateness.

Questions, comments or feedback on The DIVE PLAN are welcome. Please submit all correspondence to the e-mail address above.



Exercising and Muscle Cramping

By Andrew Ryal, PADI Divemaster

Greetings, Windy City Seals and fellow divers!

I do hope that the season has fared well enabling you to enjoy the wonderful weather that we've had. For those of us who have yet to get wet and have not remained in shape, one of our most common enemies that may pay us a visit are leg cramps. Whether you consider yourself a fitness freak or a couch potato, you've probably experienced the painful spasms known as 'exercise associated muscle cramping' (or EAMC).

These cramps usually happen while performing exercise to fatigue, such as the calf cramp that hits so many divers getting back in the water after some time off or swimming against the current returning to the boat after a dive. They can also hit during the hours of recovery that follow, such as the charley

horse that makes you pull over during your drive home from a hard workout.

EAMC most commonly occurs in muscles that span two joints. This includes the calves, hamstrings, and quadriceps. EAMC also occurs in the adductors (inner thigh) as well as muscles of the hand and wrist. This is thought to be due to their relatively large ranges of motion and resultant muscle fiber overlap when in a relaxed, shortened position.

EAMC does not require whole body fatigue, such as from running a marathon or swimming for a long distance or kicking against a strong current. Instead, any little muscle that is worked to fatigue will be susceptible to EAMC, such as the hand of someone writing a lengthy letter.

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The Big Lie. Nearly everyone has heard at some point that the best way to prevent cramps is to stay hydrated and eat bananas. Unfortunately, this advice is based upon the extremely persistent myth that cramps are caused by dehydration and/or electrolyte imbalances. Exercise physiologists have known for decades that this strategy, while certainly an otherwise healthful habit, will do nothing to prevent EAMC. To understand where this myth came from and why it continues to be propagated by fitness novices and experts alike, we must look at the history of research on the topic.

Miner Cramps. The first studies of cramps looked at the condition in steamship workers and miners. The extreme heat present in these environments lead to a variety of health issues, including dehydration and electrolyte depletion due to sweating over the course of a 12-16 hour work day. Thus, research in the early 1900s focused on the correlation between these symptoms, going so far as to label EAMC officially as "heat cramps" or "miner cramps" (*Brockbank 1929, Derrick 1934, Edsall 1908, McCance 1936, Oswald 1925, Talbot 1935*). This was the birth of the dehydration and electrolyte theories of EAMC.

Between the mid 1930s and early 1970s, research continued to focus on the

relationship between EAMC and other symptoms and illnesses associated with intense activity. Where the interpretation of these and earlier studies missed the mark is that none attempted to see if EAMC occurs as much in temperature neutral environments as in hot ones, as we now know it does.

Also, they failed to look at EAMC occurring in people experiencing acute muscular fatigue without intense sweating, such as hand, wrist and leg cramps from scuba diving in new musicians, typists and divers. Thus the only correlation between EAMC, dehydration, and electrolyte imbalance was in the fact that all three conditions were the result of physical work to muscular exhaustion.

Beginning in the mid 1980s, exercise physiologists and researchers began to reevaluate previous research to see if they truly identified a direct correlation between EAMC, dehydration and/or electrolyte levels (*McGee 1990*). Armed with a broader perspective, researchers looked for the common denominator between all of the situations in which EAMC commonly occurred.

Evidence began to accumulate showing EAMC was not directly correlated with dehydration, electrolyte levels, or environmental conditions of either extreme heat or cold.

Rather, it seems to be most directly associated with extreme fatigue of a given muscle, not necessarily the fatigue of the entire body.

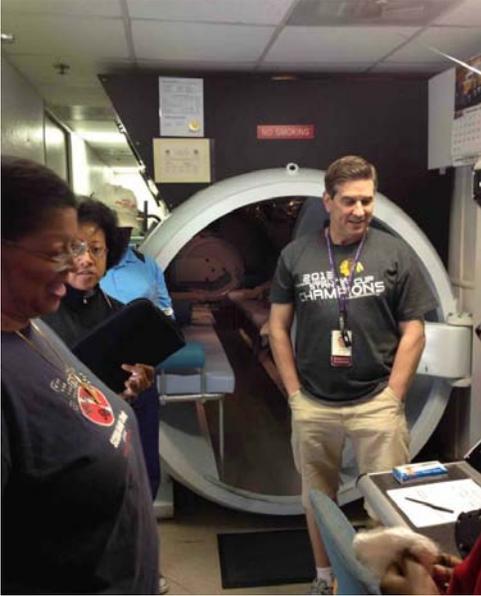
Treatment of Cramps. When a cramp hits, the fastest way to stop it involves stretching the cramping muscle while contracting its antagonist, or opposite muscle. For example, if you have a cramp in your hamstring, you should straighten your leg and contract you quadriceps. This lengthening of the muscle reduces the amount of overlap between the strands of the muscle fibers and limits the amount of force they can generate. The contraction of the antagonist also serves to send a signal of inhibition to the cramping muscle, instructing it to relax. Deep massage may or may not reduce the duration of the cramp, though it usually helps to relieve the associated pain.

Once the cramp releases, you should continue to stretch the affected muscle for 30-60 seconds. This will further inhibit the contraction of the muscle fibers, reducing the chance it will cramp again.

I hope that this bit of information has been interesting as well as educational, remembering that a good sanctioned physical exercise regimen is the most proven way to good health.

Source: Cameron L. Martz, ACSM H/FI

THE LOG BOOK

Seals Explore Hyperbaric Medicine

On a breezy September morning, seven Seals members set out to participate in a hyperbaric chamber dry dive. They met at Advocate Lutheran General Hospital's Hyperbaric Treatment Center in Park Ridge, IL. After an hour of classroom instruction to learn about the history of hyperbaric medicine, they walked through the hospital to the center, which was located in a trailer steps away from the hospital's side entrance. They received further instruction about the actual chamber, and prepared for the dive by either removing their shoes or placing sanitized covers over them before entering the chamber. The instructor ensured that all divers were comfortable and then closed the door. Seals members dove 130 feet in 12 minutes, and had an 18-minute bottom time.

This dive simulated conditions of being under water where higher than normal atmospheric pressure is experienced. As most divers know, hyperbaric treatment allows a person to breathe 100 percent oxygen while inside a pressurized chamber. The increased oxygen and increased pressure put 10 to 20 times more oxygen directly into the body's tissues, which can result in many therapeutic effects, especially for diving injuries.

THE LOG BOOK

Seals Join NABS 2013 Summit: Roatan, Honduras November 9-16

Members of the Windy City Seals SCUBA Diving Club will attend the National Association of Black SCUBA Divers (NABS) 2013 summit in Roatan, Honduras November 9-16. The Seals plan a large presence at the 23rd annual summit, which will be held at the Fantasy Island Beach Resort. The resort sits on a 21-acre private island on one of three major islands that form the Bay Islands off Honduras. It is an all-inclusive resort that includes all meals, all diving, sodas, juice and alcohol. All rooms have ocean views with balconies, air-conditioning, TV hairdryers and small refrigerators.

Let's get ready for Honduras!



2013-2015 Seals Officer Nominations

Windy City Seals SCUBA Diving Club will hold elections for two offices – Vice President and Treasurer – at the club’s November meeting. Nomination forms were sent to all Seals members by e-mail recently. Nominations will be accepted through November 8.

Officers and Duties – Vice President and Treasurer shall be elected. These officers shall perform the duties described by these bylaws and by the parliamentary authority adopted by the Windy City Seals SCUBA Diving Club.

The Vice President performs the function of the President in the absence of the President and shall serve as Chairperson of the Membership Committee.

The Treasurer shall be the custodian of all monies and financial records of the Club. He/she shall issue such checks and monies, as the Club shall authorize. The Treasurer shall present a financial report at each regular meeting.



SUPPORT THE SEALS

Seals Publish New 2014 Calendar

They’re hot off the press! Get your 2014 Windy City Seals SCUBA Diving Club Calendar today. Just \$10 for one year of beautiful diving and diving-related photos captured by Seals members traveling throughout the Caribbean from Marina Hemingway to Roatan, Honduras.

Order today! Contact us by e-mail at info@windycityseals.com.





Windy City Seals President Marvin E. Martin, Sr. (second from right) surrounded by other Seals members (from left: Cass Simpson, Art Smith, Jerome Banks and Jamilah Owens) during the last local dive of the Seals season in October. The dive event was held at Haigh Quarry in Kankakee, IL.

CALENDAR OF EVENTS

November

- 9-16 NABS Summit / Fantasy Island, Roatan, Honduras
- 23 Seals Business Meeting (Elections) / Church of the Holy Cross

December

- 14 Seals Annual Christmas Party / Jackson Park Harbor Club

January

- 1 Seals Annual New Year's Day Dive / Lake Michigan

Windy City Seals SCUBA Diving Club Chicago, IL

Club Officers

President
Marvin E. Martin, Sr.

Vice President
Melvin Knazze

Treasurer
Brenda Marshall

Secretary
Brenda Hampton

Dive Trip Coordinator
Michele Dowdy

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