



UNDERCURRENTS

Newsletter of the Bluegrass Dive Club / www.bluegrassdiveclub.com

March 2015

Volume 45, Number 3

March's Club Meeting

Date: Tuesday, March 10th
Time: 7:30-PM (business)
Social at 7
Location: The Racquet Club
3900 Crosby Rd.
Program:

President's Message

By Tracey Combs



The winter is still holding on and the snow is falling but, I am excited about some of our warm destinations of the future. We have a group that just returned from Dominica and that was a major temperature shock.

There are several upcoming events on the calendar. The always fun and sometimes profitable Derby Party, as well as the Costa Rica Trip are getting closer. Then we have wonderful local diving at Dale Hollow and the exciting Mystery Trip coming in Fall.

Our next meeting will be March 10, 2015 at the Racquet Club. Due to some new security changes at the Racquet Club, the side door by the meeting room will be the preferred entrance. The wooden steps at the back of the building by the parking lot lead to that door. Everyone is welcome!! I hope to see you there. 🚩

The Editor's Notes

By Bart Bertetto



As many of you know, I had to abort in the middle of the Dominica trip to rush to my dad's side in California. He passed away 3 days later. Thank you everyone for your support and thoughts. I'm so thankful I made it back in time to be there and share those final days with him and our family.

Dad lived 92 years of a very full life raising ten children. He was a tremendous health and fitness inspiration to me. Now that he is gone I am more inspired to live my life healthier and fuller. To that end, and because I feel being healthy is an important part of diving, at the end of the newsletter I'd like to share my dad's story and the inspiration and motivation it has given me.

Pictures this issue from the Dominica trip. It truly is a paradise isle and I can't wait to go back 🚩



2015 BGDC Officer's

Tracey Combs, President	621-4066
Corrine Mulberry, Vice President	913-0892
Mike Sullivan, Secretary	266-4516
Dan Miller, Treasurer	948-5133
Doug Geddes, Trip Director	224-3197
Rick Stephan, Safety Info Dir.	223-3719
Mike McCann, Webmaster	255-3937
Bart Bertetto, Newsletter Editor	502-299-3656

Vice President's Report

By Corrine Mulberry



PROGRAMS:

March 2015 Program: Have you ever wanted to hear a first account of Decompression Sickness? March's Program will bring Dale Schermer to our meeting for a first-hand account of DCS. We all want to be safe divers and hearing from Dale will be eye opening and informative. Thanks to Rick Stephan for talking his buddy Dale into coming to our meeting to share his experience!

April 2015 Program: Mike Sullivan has agreed (o.k. we hog tied him until he agreed!) to put together a Dominica 2015 Dive Trip program for us. Everything I have seen and heard.....well, this was a fabulous trip!!

May 2015 Swap Shop: We will have an old fashioned dive gear Swap Shop for our May Program. Go through your dive gear and set aside stuff you aren't using or don't need (new or used) and bring it to the May meeting to barter or sell. I also hope to have someone from Jamie Clark Diving (Danville/rural Mercer County) come to the meeting to tell us more about their services and what they have to offer.

If you have diving information that you would like to present at a Club meeting (past or potential dive trip, etc.), I would love to hear from you. Please contact me so that we can

put you on the calendar. 913-0892 or mulberryc1@gmail.com

Costa Rica - June 6- 13, 2015

The registration and final payment deadline for this trip is behind us now....March 1st. If you missed out, really want to go and can act quickly, we will see if we can accommodate you. Contact Trip Leader, Corrine Mulberry, at mulberryc1@gmail.com.

Dale Hollow - July 18th & 19th, 2015



Let's go the lake and relax! Charlie Denham and "Papa" Johnathan Elkins (above) caught a few zzz's last year. The Dale Hollow Lake Dive/Eat/Relax/Play trip is "ON" for 2015! We already have 3 members signed up. Reservation form and trip details are on our webpage (Thanks Mike McCann!). Go ahead and make your reservations now --- overnight

accommodations at the campground, cabin or state park lodge are currently available, but if you wait another month, the lodge will probably be full! \$20.00 per person per day gets you on the Pontoon boat. More details to follow in future newsletters and on our website. If you are not familiar with this trip, give me a shout and I'll be glad to fill you in! (mulberryc1@gmail.com) 🚩



Trip Director's Report

By Doug Geddes



Dominica 2015

Fun was had by all. Weather was great and the diving was even better than advertised. Lots of large sponges and colors. Sorry you missed it.

Philippines 2016

Check out our website for this fantastic trip back to the areas we did in 2012. One of our best dive destinations. We are diving at two fabulous locations. Please sign up soon as this trip will be here quicker than you think. Don't miss it this time.

Mystery trip 2015

Have had a couple of good trips to consider this year. Still waiting for more to choose

between. Keep watching and let me know if you see one pop up? 🚩



From the Treasurer

By Dan Miller



2015 Membership Dues

Student (High School or College ID) ..	\$10.00
Single & Family (1 diver)	30.00
Family (non divers).....	30.00
Family (2 or more divers)	40.00

Renewal: Please send payment to the address listed below, please make sure there is a correct indication of your mailing address, phone number and it is very important to indicate an email address.

Contact / Mail to: Bluegrass Dive Club c/o
Dan Miller
824 Gunpower Drive
Lexington, KY 40509

New Members: Visit the website to fill out an on-line form or to access a Microsoft Word printable form. [CLICK HERE](#). 🚩



From The Secretary

By Mike Sullivan



General Meeting February 10, 2015

CALL TO ORDER 7:25 PM. Everyone was welcomed by Tracey Combs.

OFFICERS AND DIRECTORS REPORTS:

TREASURER. Dan Miller was absent. The Treasurer's Report was briefly discussed by Tracey Combs and no questions were asked. The account interest was not available, but will be put on next month's reports.

VICE PRESIDENT. MULBERRY. There were no new members. The new bumper stickers were unveiled and passed out to members. The Video was 2012 Philippines trip. The same two locations will be visited on the 2016 trip.

SECRETARY. Mike Sullivan was absent. Tracey Combs passed the sign-in sheet around the room. Mike McCann could not find his name tag. A Name Tag for Sid Yarbrough needs to be made.

TRIP DIRECTOR. Doug Geddes was absent. Tracey Combs and Corrine Mulberry briefly

highlighted the upcoming trips: Dominica (Fort Young), February 7 – 14, 2015. Costa Rica, June 6 – 13, 2015. Dale Hollow, July 18 – 19, 2015. Mystery Trip, Fall 2015. Philippines, January 23 – February 6, 2016. The possibility of a Mystery Trip to Honduras (Anthony's Key) was discussed. The group was not interested in staying at this location.

SAFETY INFORMATION DIRECTOR. STEPHAN. Rick briefly discussed his article in the February newsletter, 10 Tips to Prevent Motion Sickness. Rick also gave a brief introduction of the guest who will be at the March Meeting. He had decompression sickness and will be talking to the group about his experience.

NEWSLETTER EDITOR. Bart Bertetto was absent. He was recognized for a great job on the February newsletter, which he completed without assistance.

WEBMASTER. McCANN . Mike will be putting the Dale Hollow and Philippines trips on the BGDC Website very soon, so that sign-ups can begin.

ADJOURNMENT 8:28 PM



Board Meeting February 24, 2015

Meeting called to order at 7:43 pm
Attendees: Tracey Combs, Rick Stephens, Corrine Mulberry, Doug Geddes, Dan Miller, Mike McCann, and Mike Sullivan

Agenda approval: Doug Geddes

Treasurer: Dan submitted the Treasurer's Report as of 24 February 2015. Brief discussion concerning money on account for members.

Vice President: Corrine confirmed presentations for Mar: presentation by Dale Schermer on DCS; Apr: Presentation by Mike Sullivan on Dominica trip; May: Swap Shop; June: Cookout and Social. Seven people have signed-up for the Costa Rica trip. Plenty of space if more members are interested. Reminder that final payment is due March 1, 2015.

Reminder that the Dale Hollow trip is scheduled for Jul 18-19. Corrine indicates that work needs to be done on the database to track membership status by year.

Secretary: Mike provided the Board with a Club Retention Status. He will look at past years numbers and trends based on trips and Families.

Trip Director: Doug will wait on the mystery trip for other resort options before the board makes a decision. The Philippines trip is on the website for members to sign-up for the trip

Webmaster: Mike is currently working on the Club taxes.

Safety: Rick has arranged for Dale Schermer to present the program in March on (DCS).

Newsletter: Articles are due to Bart on Friday, February 27, 2015.

President: Tracey will be bringing samples of clothing available for purchase by members with the Club logo either screen printed or embroidered on the items.

The meeting was adjourned at 9:30 pm. 🚩



Safety Corner

By Rick Stephan



Note: This month's article is from DAN's website and talks again about decompression illness in diving. Since it is a quite lengthy article, I've divided it into two installments. This month talks about what DCI is and how to prevent it. Next month, we'll discover how to treat it.

Diving is a sport fraught with danger. Big waves, current, physical impairments and so forth can all lead to injury and possible death due to drowning. Injuries inflicted by aquatic animals (shark bite, lion fish injection, jellyfish stings, etc.) can also be a problem. But the one danger endemic to diving is DCI. Read on then, hopefully for just a tune-up, but

Safety Corner Cont.

maybe there are some facts that you haven't considered up to now.

We want to keep the BGDC trips injury free and the best way to do that is to be prepared. And remember, safe diving is fun!

Decompression Illness: What Is It and What Is The Treatment?

By Dr. E.D. Thalmann, DAN Assistant Medical Director

With reports by Renée Duncan, editor, and Joel Dovenbarger, vice president, DAN Medical Services

NOTE: This article was published in March/April 2004.

Decompression illness, or DCI, is a term used to describe illness that results from a reduction in the ambient pressure surrounding a body. A good example is what happens to your body when you're surfacing after a dive.

DCI encompasses two diseases, decompression sickness (DCS) and arterial gas embolism (AGE). DCS is thought to result from bubbles growing in tissue and causing local damage, while AGE results from bubbles entering the lung circulation, traveling through the arteries and causing tissue damage at a distance by blocking blood flow at the small vessel level.

Who Gets DCI?

Decompression illness affects scuba divers, aviators, astronauts and compressed-air workers. It occurs in approximately 1,000 U.S. scuba divers each year. Moreover, DCI hits randomly. The main risk factor for DCI is a reduction in ambient pressure, but there are other risk factors that will increase the chance of DCI occurring. These known risk factors are deep / long dives, cold water, hard exercise at depth, and rapid ascents.

Rapid ascents are closely linked to the risk of AGE. Other factors thought to increase the risk of DCI but for which evidence is not

conclusive are obesity, dehydration, hard exercise immediately after surfacing, and pulmonary disease. In addition, there seem to be individual risk factors that have not yet been identified. This is why some divers seem to get DCI more frequently than others although they are following the same dive profile.

Since DCI is a random event, almost any dive profile can result in DCI, no matter how safe it seems. The reason is that the risk factors, both known and unknown, can influence the probability of DCI in myriad ways. Because of this, evaluation of a diver for possible decompression illness must be made on a case-by-case basis by evaluating the diver's signs and symptoms and not just based on the dive profile.

Decompression Sickness

Decompression sickness (DCS, also called the bends or caisson disease) is the result of inadequate decompression following exposure to increased pressure. In some cases, the disease is mild and not an immediate threat. In other cases, serious injury does occur; when this happens, the quicker treatment begins, the better the chance for a full recovery.

During a dive, the body tissues absorb nitrogen from the breathing gas in proportion to the surrounding pressure. As long as the diver remains at pressure, the gas presents no problem. If the pressure is reduced too quickly, however, the nitrogen comes out of solution and forms bubbles in the tissues and bloodstream. This commonly occurs as a result of violating or approaching too closely the diving table limits, but it can also occur even when accepted guidelines have been followed.

Bubbles forming in or near joints are the presumed cause of the joint pain of a classical "bend." When high levels of bubbles occur, complex reactions can take place in the body, usually in the spinal cord or brain. Numbness, paralysis and disorders of higher

Safety Corner Cont.

cerebral function may result. If great amounts of decompression are missed and large numbers of bubbles enter the venous bloodstream, congestive symptoms in the lung and circulatory shock can then occur.

Symptoms of DCS

- Unusual fatigue
- Skin itch
- Pain in joints and / or muscles of the arms, legs or torso
- Dizziness, vertigo, ringing in the ears
- Numbness, tingling and paralysis
- Shortness of breath

Signs of DCS

- Skin may show a blotchy rash
- Paralysis, muscle weakness
- Difficulty urinating
- Confusion, personality changes, bizarre behavior
- Amnesia, tremors
- Staggering
- Coughing up bloody, frothy sputum
- Collapse or unconsciousness

Note: Symptoms and signs usually appear within 15 minutes to 12 hours after surfacing; but in severe cases, symptoms may appear before surfacing or immediately afterwards. Delayed occurrence of symptoms is rare, but it does occur, especially if air travel follows diving.

Denial and Recognition

The most common manifestations of DCS are joint pain and numbness or tingling. Next most common are muscular weakness and inability to empty a full bladder. Severe DCS is easy to identify because the signs and symptoms are obvious. However, most DCS manifests subtly with a minor joint ache or a paresthesia (an abnormal sensation like burning, tingling or ticking) in an extremity.

In many cases these symptoms are ascribed to another cause such as overexertion, heavy lifting or even a tight wetsuit. This delays seeking help and is why it is often noted that the first symptom of DCS is denial. Sometimes these symptoms remain mild and go away by themselves, but many times they increase in severity until it is obvious to you that something is wrong and that you need help.

What happens if you don't seek treatment? In severe DCS, a permanent residual handicap may result: this can be a bladder dysfunction, sexual dysfunction or muscular weakness, to name a few.

In some cases of neurological DCS, there may be permanent damage to the spinal cord, which may or may not cause symptoms. However, this type of damage may decrease the likelihood of recovery from a subsequent bout of DCS.

Untreated joint pains that subside are thought to cause small areas of bone damage called osteonecrosis. Usually this will not cause symptoms unless there are many bouts of untreated DCS. If this happens, however, there may be enough damage to cause the bone to become brittle or for joints to collapse or become arthritic.

Prevention of DCS

Recreational divers should dive conservatively, whether they are using dive tables or computers. Experienced divers often select a table depth (versus actual depth) of 10 feet (3 meters) deeper than called for by standard procedure. This practice is highly recommended for all divers, especially when

Safety Corner Cont.

diving in cold water or when diving under strenuous conditions. Computer divers should be cautious in approaching no-decompression limits, especially when diving deeper than 100 feet (30 meters).

Avoiding the risk factors noted above (deep / long dives, exercise at depth or after a dive) will decrease the chance of DCS occurring. Exposure to altitude or flying too soon after a dive can also increase the risk of decompression sickness. DAN has recently published guidelines for flying after diving.*

Arterial Gas Embolism

If a diver surfaces without exhaling, air trapped in the lungs expands with ascent and may rupture lung tissue - called pulmonary barotrauma - which releases gas bubbles into the arterial circulation. This distributes them to body tissues in proportion to the blood flow. Since the brain receives the highest proportion of blood flow, it is the main target organ where bubbles may interrupt circulation if they become lodged in small arteries.

This is arterial gas embolism, or AGE, considered the more serious form of DCI. In some cases the diver may have made a panicked ascent, or he may have held his breath during ascent. However, AGE can occur even if ascent appeared completely normal, and pulmonary disease such as obstructive lung disease may increase the risk of AGE.

The most dramatic presentation of air embolism is the diver who surfaces unconscious and remains so, or the diver who loses consciousness within 10 minutes of surfacing. In these cases, a true medical emergency exists, and rapid evacuation to a treatment facility is paramount.

On the other hand, air embolism may cause less spectacular symptoms of neurological dysfunction, such as sensations of tingling or numbness, a sensation of weakness without obvious paralysis, or complaints of difficulty in thinking without obvious confusion in individuals who are awake and easily aroused.

In these cases, there is time for a more thorough evaluation by a diving medical specialist to rule out other causes of symptoms.

Like DCS, mild symptoms may be ascribed to causes other than the dive, which only delays treatment. Sometimes symptoms may resolve spontaneously and the diver will not seek treatment. The consequences of this are similar to untreated DCS: residual damage to the brain may occur, making it more likely there will be residual symptoms after a future bout of AGE, even if the later bout is treated.

Symptoms of AGE

- Dizziness
- Visual blurring
- Areas of decreased sensation
- Chest pain
- Disorientation

Signs of AGE

- Bloody froth from mouth or nose
- Paralysis or weakness
- Convulsions
- Unconsciousness
- Cessation of breathing
- Death

Remember, safe diving is fun!

A Health Message from Bart

My dad's passing was such a shock and is still very painful for us. In his retirement community they had recently celebrated 22 centenarians and we always thought Dad would have no problem joining that club. Here's his story that just might help you or someone close to you make 100.

My dad had pancreatitis that had gone undiagnosed. But what killed him was multiple organ failure. I could not understand that because Dad had no known issues and was in very good shape for his age- 100 percent mentally, active, ideal weight, ate very well (or so we thought) and had good marks (or so his doctor thought) during his checkups every 6 months. So I started researching and talked with every specialist at the hospital I could find. This is what I concluded in my non-medically trained opinion.

It is clear that his doctor, for that matter most doctors (including mine), are oblivious about pancreas health and the long term impact of elevated blood sugar (glucose) levels on the other organs and aging in general. Looking at my dad's records, his Fasting BS level always bounced around 100. Mine has been in the 95-99 range for quite some time now. In both cases our doctors always said that was a good number. Wrong. According to many experts now, I'm technically pre-diabetic, one step away from Type 2 Diabetes. Optimal BS levels for organ function and general longevity are now recognized to be Fasting BS 70-85 and Post-meal BS less than 120! Why? For 99.9% of man's evolutionary time on this earth he was on a low carbohydrate/sugar hunter-gatherer diet and the pancreas and the other organs developed their complex functions accordingly. Man did not eat the cultivated and highly hybridized grains and legumes that are in our diets today. (See Paleo Diet) These and other modern foods and their food products have relatively super high carbohydrate content. Carbohydrates rapidly convert to sugar (glucose) in the blood and they continually throw the pancreas into high gear to produce the insulin to control it. The pancreas is just not designed for that kind of long term abuse. But just as bad, is the deteriorating effect of high blood sugar on other organs such as kidneys, heart, and

lungs. My Dad's favorite breakfast was a large bowl of oatmeal full of dried fruit and he drank a lot of juice. Then doing his handyman and gardening rounds, he would snack all day on granola, nuts, and dried fruit like raisins, cranberries, etc. He thought he was doing his body good. But in reality these very high carb foods can easily spike your blood sugar sky high, way in excess of 200. When my dad got to the hospital his BS was over 250 for which he had to receive emergency insulin. His kidneys, heart, and lungs were in significant distress and dysfunction followed in short order.

Carbohydrate content, Glycemic Index (how readily the carbohydrate converts to sugar), and portion size are something to keep in mind when you are eating or drinking any high carbohydrate food. Post-meal BS can really spike, especially with "trigger" foods like orange juice, putting stress on the pancreas and other organs. It will eventually take its toll. Monitor your BS levels and gradually make the diet and portion changes to bring them down. With the alarming increase in Type 2 Diabetes and the attention being given the Paleo diet, there are vast resources on the web. I'm currently experimenting with flourless, low-glycemic bread (not bad) and my wife with vegetable pizza "dough".

Now does this mean I'm going to give up orange juice, beer, and real pizza? Probably not. But, I am going to try to balance these things with low carbo foods and give my system rest and recovery time. Hopefully it will bring down my BS numbers as well. Let's all inspire ourselves to shoot for the 100 club. 🚩

Bluegrass Dive Club 2015 Calendar

March

10, Tuesday Dive Club Meeting
24, Tuesday Board Meeting

April

14, Tuesday Dive Club Meeting
28, Tuesday Board Meeting

May

2, Saturday Club's Derby Party
12, Tuesday Dive Club Meeting
26, Tuesday Board Meeting

June

6-13, Costa Rica Dive Trip
9, Tuesday Dive Club Meeting
30, Tuesday Board Meeting

July

14, Tuesday Dive Club Meeting
18-19, Saturday Dale Hollow
28, Tuesday Board Meeting

August

11, Tuesday Dive Club Meeting
25, Tuesday Board Meeting

September

8, Tuesday Dive Club Meeting
29, Tuesday Board Meeting

October

13, Tuesday Dive Club Meeting
27, Tuesday Board Meeting

November

10, Tuesday Dive Club Meeting
24, Tuesday Board Meeting

December

12, Saturday Club Christmas Party

Dive Committee Members

Doug Geddes – Chairman	885-2215
Tracey Combs	621-4066
Ralph Covington	621-3862
Mike Sullivan	266-4516
Gordon Green	C@Meeting
Ed Sullivan	C@Meeting
John Geddes	223-7926
Corrine Mulberry	913-0892