



## ASK DR. DEBBIE...

By Debra A. Hill, MD

### AM I FIT TO GO DIVING...AND WHAT ABOUT THE FITNESS OF MY DIVE BUDDY?

Recently I had a great conversation with a friend I hadn't seen in years. We reminisced about some fun dives we'd had together, and shared some new dive stories too. Then the subject came up of getting together and doing some diving right here off of Laguna.

Of course I was eager to set a date to go diving as soon as possible, but to my surprise my friend said that she didn't feel fit to dive here right now. I was surprised to hear her say that, since she looked as fit as she always has. But no, she felt she could handle warm, clear, water diving—but, that she'd need to work on getting fit to dive in our local waters again. I was impressed with her matter-of-factness and resolve regarding her decision to not just hop in the water and go diving with me like we'd done years ago. This notion of being fit to scuba dive got me thinking about a number of things. I began thinking, well, I need to work on dropping few pounds, but I didn't feel those few extra pounds made me unfit to dive. Oh, and there are so many articles in the dive magazines about the importance of being fit to dive. Many of them emphasize that diving actually helps to make one more fit to dive. While I do think it is true, that the more we do certain kinds of dives, the more we are accustomed to doing what's required—i.e. beach diving is quite different from boat diving, and reef diving is quite different than say oil rig diving, or cave diving or technical deep diving. .

Well, we are all noticing a few extra pounds after the holidays and are beginning to start our efforts at taking off that Holiday weight gain. Certainly weight can be a measure of fitness, but what about the idea that we are fit to do

some kinds of diving, but not others, and what criteria do we use in our own minds to determine our own fitness level?

As I analyzed how I think through my own fitness for certain kinds of dives, I realized that there are some basic underlying issues common to all diving that define fitness to dive. These fall into three categories: 1) Physical fitness, 2) Cognitive or mental fitness, and 3) Emotional fitness. I see diving as an experience that integrates these three aspects of us—our physical well-being, our mental or thinking self, and our emotional well being. When these are all in harmony, generally we feel good on our dive. We feel confident that we know what we are doing, confident that we can handle the physical demand of the dive, and we are in a positive, even keeled emotional state and able to experience the pleasure of the dive through all of our senses. So how do we decide that we are physically fit enough to dive? Some of us might go to our internist or family doctor every year or two for a physical—and if the doc says you're basically OK, and you feel OK, then generally, I think most people decide they must be fit to dive. Remember that most docs aren't trained in understanding the kinds of demands that are placed on the body in a hyperbaric environment (i.e. underwater environment), and may not be able to give well-informed advice about diving and you.

I was talking to one of the medics at the Dive Alert Network today about their review of dive accidents and fatalities, and their comment was that nearly all fatalities could have been avoided, and that 30% of them had to do with underlying cardiovascular disease. That's a fairly high percentage. Well, you say, how am I going to know if I have

cardiovascular disease? I'll just take my chances, I don't get chest pain, and I don't have high blood pressure—at least it's OK when I take my meds, you say to yourself. But, aha, there is something you can do to make some kind of reasonable guess as to your relative risk for cardiac disease—and that is the following: Ask yourself if you have any of the risk factor for cardiovascular disease, and if you have some of those risk factors, then definitely see your doctor and get a thorough evaluation. The cardiac risk factors include:

- 1) A family history of heart disease such as: Heart attacks, angina, or hypertension.
- 2) Your own history of heart disease: Hear attacks, chest pain, and high blood pressure.
- 3) A family history or your own history of diabetes as this can lead to vascular disease.
- 4) A history of smoking.
- 5) A history of more than, occasional intake of alcohol.
- 6) A sedentary lifestyle. The recommended baseline level of exercise is presently 30 minutes of walking per day.
- 7) Body weight, more than 10% over the recommended weight for your height and age.
- 8) Eating pattern of high fat intake (greater than 25-30% by calories of fat per day). Did you realize that by frying things it increases the calories by 4-5 times per ounce! For example baked potatoes are 20 calories per ounce, but when fried they are 80-100 calories per ounce! So an 8-ounce potato goes from being 160 calories to 800 calories when made into fries! That doesn't mean we can't have fries now and then—but consider if it's worth it.
- 9) Eating less than five servings of fruit and vegetables per day. A serving of fruit and vegetables is one piece of fruit, or one cup of fruit or vegetables. For example: eating two pieces of fruit per day and 3 cups of vegetables per day—and sorry, fries don't count.

**And what about our mental fitness? Some good ways to evaluate this are:**

- 1) Are we trained to do the kind of diving we are about to embark on, and do we feel up to date on our training—or should we take a refresher course?
- 2) Have we gotten 7-8 hours of sleep nearly nightly this past week—and especially the night before a dive? How often is it, and I've been guilty of this too, that we are up late getting our dive gear all organized for our early morning trek to the boat or beach? Lack of sleep will truly put one at risk of an unsafe dive.
- 3) Have we eaten well and kept ourselves well hydrated, i.e. 8 glasses of water minimum per day, throughout the week before the dive?

**Lastly, what about our emotional fitness before a dive? Here are some basic ways to evaluate this:**

- 1) Do I feel comfortable with my gear, my dive buddy, the dive plan, and the emergency plan if something goes wrong? Remember the old saying, "Plan your dive, and dive your plan." This adage is very sound, and should always be remembered.
- 2) If uncertain about your level of comfort in any of these areas, ask your self to rate your level of discomfort on a scale of 1-10. Obviously, if your discomfort level is around a 7-10 out of 10, then you probably should skip the dive. Remember there is always another day to dive.
- 3) Are you pre-occupied by some other issue in our life at the present moment that you can't stop thinking about? This is critical. Diving requires concentration, and if we are distracted by other worries—it's not the time to dive.
- 4) Don't be afraid to speak up about anything you feel could be potentially dangerous about the dive, even if it involves something that someone else is doing—better to gently say something, than keep it to yourself, and later regret not having expressed your concerns. This lesson, I learned on the well-known Darren Douglas Dive accident. Fortunately, my husband and I were able to use CPR to save one of the divers, but Darren and his 12 year old son drowned, unfortunately at 150 fsw on the wreck of the Moody—a dive that clearly an inexperienced 12 year old should not have gone on. I only wish I had expressed my concern before that boy entered the water.

In summary, the basics we should ask ourselves about our fitness to dive include:

- 1) What is our cardiac risk status (per the items listed above)?
- 2) Are we well trained, well rested, well fed, and well hydrated?
- 3) Are we comfortable with all aspects of the dive—from ourselves, to gear, to buddy, to ancillary crew, to emergency plan?

When we are fit physically, mentally, and emotionally then diving becomes autopilot. We use our skills with ease, and we can enjoy the experience! I encourage all of us to dive safely so we can enjoy the amazing underwater world. Let's strive to be the fittest Dive Club in the Country! We can do it!

I want to thank my friend for not being afraid to speak up and tell me she wasn't fit to dive at this time. I truly respect her sound judgment regarding her fitness to dive. I know I will get to dive with her again when she is ready. And then we can both truly enjoy it!