

## I AM A HANDICAPPED DIVER

John Poteet

Before I talk about my own experience with scuba there is a point I must make, that it is common for people to make all-inclusive generalisations about anyone with any kind of disability. For instance, I was talking to a diving instructor and the subject turned towards the Handicapped Scuba Association (HSA). He made the comment that he would be "possibly" interested in working with the handicapped but he did not know enough about them. His assumption was two-fold, I believe. First, that in order to deal with *the handicapped* he had to gain some kind of new insight about a special group of people from a strange new world. He almost unknowingly placed more emphasis on the DIFFERENCES of people than their similarities. Second, he voiced no awareness of the fact that an individual's ABILITY to undertake a specific task depends on the nature of his disability and the extent of its severity. With no malice he lumped *the handicapped* in one big club and assumed that we would all perform the same way. He assumed that he would be dealing with a handicapped group, not a group of individuals.

I hope that nobody who reads this makes the same mistake. I can only relate my personal experience and this cannot be interpreted as common to all persons who have a disability. In fact even though I have cerebral palsy my thoughts should not be judged as relevant to all other persons with cerebral palsy. As a matter of fact there are six different kinds of cerebral palsy and the severity of the disability within each group varies greatly. When you throw in other variables such as temperament and maturity it should be apparent that stereotypes are not realistic.

Having said this, I can begin to talk about my own experience. Cerebral palsy results from damage to the part of the brain which regulates muscular activity. In my case the damage was caused by a lack of oxygen to the area of the brain called the motor cortex. This occurred because of complications during a premature birth and resulted in spastic paralysis, primarily effecting my lower extremities. Another area of my brain that sustained damage was the cerebellar area which controls balance. Without the aid of forearm crutches I fall down a lot. There is pretty much a full range of movement of my upper limbs, although I do not have the dexterity to manipulate a keyboard or play chords on a guitar.

So how does this effect my diving? First things first. Since my legs are already stiff, putting a wetsuit around them makes them that much stiffer. Combine that with the weight of a tank, back pack and weight belt and moving on dry land becomes a lot more tiring. My solution is to put the gear on as close to the water as possible (except the suit) and to take it off as soon as possible after the dive.

Another problem on one dive was COLD. It was in November and I had an ill-fitting rented wetsuit with no hood, booties or gloves. The water was miserably cold and I seemed to stiffen up like a board. The next week I had my own suit, etc., and the dive went fine. Also on the previous dive the mask I had was continually flooding, so I now got a mask which fitted properly. I also switched from a nylon weight belt that had a tendency to become loose to a rubber belt that fitted snugly. What I have mentioned so far goes for any diver: getting equipment that is comfortable and fits makes diving a lot easier.

With the gear on and in the water I had a couple of problems to solve. The weight of the tank made it difficult for me to move from lying on my back to rolling over onto my stomach on the surface. This was a problem I had not expected and I am still not 100% sure why it exists. But in trying to figure it out it occurred to me that when I roll over in bed, or even on the floor, I use my arms automatically to pull on the side of the bed or to push off the floor. In the water there is nothing to grab onto or push off, especially at the surface. It made sense that if the muscles in the lower back and legs are stiff it may be a lot more difficult to overcome the weight on your back to roll over, especially if the buoyancy compensator is partially filled with air. A partial solution is to adjust the weights in the belt so that they are placed towards the front and counteract the weight of the tank. A similar problem is getting vertical on the surface from a prone position. If there is minimal movement in your legs they will have a tendency to want to stay at the surface. Again, it is hip and lower back muscles that force them towards a down position. Strapping 2 lb weights to each thigh reduces the tendency of my legs to float and helps me to gain an upright position. It is much more practical to put the weights on the front of each thigh than on the ankle because I have only a minimal kick and a weight on the ankle would make kicking much harder, and the leverage exerted by an ankle weight would tend to keep my body in an upright position rather than simply providing balance to ease changing from one position to another.

I should point out that most of these problems only occur at the surface and once I get down to about 30 feet movement becomes a lot easier. Also I expect that as my ability and experience increase I may be able to do away with the thigh weights. If it seems necessary to use them on a permanent basis, I will have pockets sewn in the front of my suit above my knees. Velcro straps do have a tendency to slip. But first there is something else I want to try. Regular exercise, particularly to loosen and strengthen my lower back and stomach muscles. Right now I could do five sit-ups if someone put a gun at my head. I really cannot predict how much I will gain, but it is well worth a try. Also swimming laps in a pool will help with endurance. My goal is to become much more than a novice diver with a disability.

That about covers all the major problems I faced in

regard to diving, but there are a few others perhaps I could touch on. It would not have been practical for me to have gone through a four to six week course offered by a scuba shop because it takes time and experimenting to go through the learning process of how to solve these problems, a process I am still going through. A crash course in a local shop may not allow time for this. Special problems in one individual in a class may become a frustrating burden to the instructor. That is what makes the Handicapped Scuba Association unique. It is designed not only to teach scuba but to tackle those problems as a challenge, not a burden. I have not forgotten those extra hours that some capable people were willing to spend with me to help me work out answers to my problems. I have been fortunate to dive with buddies who understand my limitations, which allows me to feel comfortable in the water with them.

For me diving is an exciting adventure. A really important part of what makes it enjoyable is the continued association with HSA members. What makes the HSA such an unusual organisation is that it provides a means for overcoming disabilities. It is not merely a club for the handicapped, it exists for the able-bodied who want to learn scuba. It is good to belong to a club that concentrates on PEOPLE rather than on their disabilities.

*This remarkable testimony to the importance of the human spirit in discussing Fitness to Dive has been slightly edited from its original format as a letter. Readers may like to know that the HSA is a Californian Non-profit Charitable Foundation and that all its officers have a physical disability of one sort or another. The aspiration is to teach and promote diving for the handicapped, as well as additional aquatic sports such as sailing and fishing. It is based in California but has chapters in Florida and Ohio and correspondence with groups in Michigan, Canada and the UK. Its basic philosophy is to concentrate on ABILITIES not the disabilities, gladly accepting a great deal of input from pupils. This creates a situation where the instructor frequently finds himself in the role of student. It has accepted amputees, paraplegics, quadriplegics and cerebral palsy sufferers. Its classes are unique in that there is a mix of handicapped and able-bodied. This creates a sensitive learning experience for both, as some tasks can be done better by the disabled persons. On completion of training there is entry into the Scuba Diving Club, which runs dive trips for members and others. This is organised by the HSA Vice-president, Larry Thompson. Larry is a partial paraplegic who has nearly completed his NAUI Assistant instructor course. The address of HSA is:-*

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## THE DIVING CANDIDATE WITH A HISTORY OF ASTHMA

CG Daugherty

The history of asthma is considered disqualifying for diving, even if not currently active or inactive for a considerable period of time. It is disqualifying by the US Navy, the North Sea regulations of the United Kingdom and Norway, and this also represents the opinion of the majority of physicians in the United States who are knowledgeable in diving medicine. The following factors should be considered, particularly if the diagnosis may be somewhat in doubt:

### Safety in the Workplace

There is a general requirement for an employer to maintain a safe, healthy workplace. The employer cannot knowingly hire someone who is physically or medically unsuitable for the proposed job. The employer has a legal requirement to have prospective employees examined in a fashion sufficient to exclude persons having conditions which would render them unsuitable for the job in question. Thus, a history of asthma would make one unsuitable for the occupation of commercial diver.

### Provocation of Asthma

Asthma may be defined as a condition in which the airways of the lung narrow and become smaller in response to stimulation which has no effect on ordinary people. Although the person may not have had an attack of asthma in many years, the potential still exists. As this reaction may be caused by situations which do not usually affect ordinary people, this means an attack could be triggered under what are considered to be normal working conditions. This is certainly true of diving, where divers are required to breathe dry gas mixtures for prolonged periods of time. This will typically cause tightness in the chest, coughing, and mild chest discomfort of a temporary nature. This is exactly the sort of exposure that could quite possibly provoke an attack of asthma in a susceptible person.

### Diagnosis of Asthma

There may be some question as to how definite the history of asthma is. In infancy and early childhood, there are common virus infections of the chest which can produce wheezing and are sometimes mislabeled as "asthma". In some cases there may not have been a formal medical diagnosis of asthma. Rather the person may simply have been told by his parent that he had asthma early in his life. This may have been based on an episode of wheezing which appeared to represent asthma to the parents, or perhaps to the person's own physician. The question can sometimes be difficult, particularly in young children. A few appropriate questions to one's parents or family