

## **Dealing with Heavy Gear**

by Cameron L. Martz, ACSM H/FI

Over 70% of the population will experience lower back strain in his or her lifetime. In the best cases, the strain can be treated with over the counter anti-inflammatories and rest. The worst result in bulging discs, which rarely can be fully repaired. Keep in mind that this is not as much an issue of fitness as it is one of repetitive stress combined with improper technique.

Dive equipment, with its cumbersome bulk, lends itself to create the exact type of stress that puts the lower back at risk. A day of picking up tanks and gear bags places a heavy strain on the connective tissues that hold your vertebrae and discs in place. You may not feel your back hurt with any given lift, but the strain will still take place. If the ligaments get stretched enough, they can no longer support your spine and you can end up with irreparable disc damage. This damage may then happen simply sitting in the car on the way home or bending over to tie your shoe.

All dive gear can be properly managed with the right precautions and tools. The following guidelines will reduce (but not eliminate) the chance that you end your diving on the surface:

1. Whenever possible, set your gear up on a bench, table, or tailgate. The more vertical you keep your back when lifting, the less sheer load you will place on your spine. Even the weight of your own body can cause you injury from hunching over your gear as you set it up. So, it is best to set your workspace as high as possible.
2. If you must lift an object off the ground, arch your lower back to pre-engage the muscles protecting the spine. You should look like you're sticking your butt out-though this may attract comments from onlookers, this is the same technique used to set powerlifting records and can make the difference between a successful lift and an injured back. Be certain to tighten the abdominal muscles, which support the spine from the front.
3. When participating as surface support for a diving expedition, don't let any one person bear the burden of placing multiple heavy loads. Back injuries are most commonly repetitive stress injuries. Use carts or hand trucks to transport gear to the water, and trade out between pulling carts and unloading gear.
4. No matter how strong you are, you can greatly reduce your risk by asking for help when placing heavy gear onto a cart or into the water. This is not the time to play tough.

### **Important Note on Back Injuries**

There is no 100% safe way of lifting anything. You can only reduce your risk and be mindful of the onset of injury. If you feel any pain when lifting, stop what you're doing and let someone else take over. Seek the attention of a physical therapist or an orthopedic or spine specialist to properly diagnose any injury that might have occurred.

If you already suffer from a back injury, you probably already know how important the above guidelines are to your daily life. That said, the possibility for further injury increases in any lifting-intensive activity. Always follow the advice of your physician or physical therapist, know your limits, and think before you lift.

Robin McKenzie, PT, has authored several books on the prevention and treatment of back injuries, and his methods have become the standard treatment for many physical therapists and doctors. His books "Treat Your Own Back" and "Treat Your Own Neck" are available from most retailers and have demonstrated an 80% success rate for the most common injuries. I highly recommend that you read these books and talk to your healthcare professional about using his methods in your treatment plan.