

Why We Do Not Bounce Dive After Diving in the WKPP

by George Irvine

It is OK to offgas from the tissues into the blood stream in bubble form in the later steps of decompression as it is a more efficient, faster way of getting rid of the remaining gas (by reduced pressure) than by elevated oxygen alone (which starts taking exponentially more time with greater risk). However, this depends on having a good lung filter and no shunts. All of you have been PFO tested if you are diving with us.

The correct way to ascend from the last stop is one foot per minute for the bigger dives.

The greatest potential for offgassing in bubble form is when the pressure is totally removed back to one ATA out of the water. Now you get a real shower of bubbles, relative to what was happening in the water. A good, clean deco with the foot per minute ascent reduces this dramatically. In MOST people, the greatest bubbling occurs out of the water and continues for up to four hours, not even peaking for a couple of hours. In a well vascularized, fit person like me, it is over with in 30 minutes. Don't bet on that with most of you.

In ALL people, the bubbles continue to grow in size after the pressure is off. They accumulate like gas into themselves from the surrounding blood or tissues (if there are bubbles in the tissues or injury sites) and they grow bigger. This is why you feel pain later rather than earlier if the bubbles are in joints or tissues - they get bigger before they begin to shrink. This is why what starts out as micro bubbles can get by the lungs and grow and get lodged downstream, and you get neurological symptoms later. Now here is the important part. If you understand everything I have said above, then you know that bouncing to 20 feet or whatever to pick up a bottle and immediately returning to the surface is the like giving yourself a homemade PFO: the bubbles in the venous side compress enough to get past the lungs and then will re-expand on the arterial side and lodge in the worst places, the spine and brain blood supplies. You do not want this.

If you dive after dive, stay down and let everything reset. Get the bubbles all compressed, and then deco out and ascend accordingly. I do not want support divers diving support within four hours of doing a real dive or deep support. This works out fine, since we have support activities lasting up to 18 to 24 hours and need to rotate everyone. Let me assure you that we have found this out the hard way in the past.

Parker used to get hot as hell when it would happen. In those days we had "volunteers", and they would all get bent diving to 20 feet to pick up bottles. We have also seen some severe cases of this where dives were done away from the project with no support, and the players went back for bottles later and got hammered.

Don't do it. Also, obviously, do not freedive after a dive. When you want to freedive, do that first and then go scuba diving.