20 “RULES” of Diving

Every diver, from their open water training on, has been told by their instructors there are certain rules associated with diving that, if broken, the risk of injury or death increases. Sounds pretty important, doesn’t it. It sure does and it is important. There are problems which rules should go on a list and some people like to try to rank the important ones. I’m not going to say that x is more important than y or that they should be ranked. Each rule is important and would have its proponents why this rule should be number one and that rule number two, etc. in accordance to their own rational and ranking system. I am saying that we, as instructors, usually don’t teach that this is a rule and there is another one and oh, by the way, here is another rule that belongs on the list. All of the rules are covered over the course of the open water scuba class, and there significance is pointed out, but outside of a few, we usually don’t even tell our students that they are rules. We tell them how important they are, but we don’t list them as a “rule”. Sometimes they are mentioned as tips or things that must be or should be done. Hence, this book. Think of this as a nice, handy reference.

Never Hold Your Breath

This is one of the “biggies”. Usually instructors assign the “rule” label to this one. The reason it is so important is Boyles Law. Boyles Law states that pressure and volume have an inverse relationship. This means that as pressure increases, then the volume decreases and vice versa. This laws meaning: As you descend deeper into the water, pressure is increasing on you and your equipment. As this pressure is increasing the volume of anything that has volume (your mask, wet suit, scuba tank, BC, lungs, teeth, sinuses, middle ear, etc) is decreasing. Ascending from depth, the pressure on our bodies and our equipment is decreasing and the volume is increasing. Why is this important to divers? Well a quick review of depth and atmosphere is needed.

Going back to our open water certification class:

First thing to know is one atmosphere is one BAR, or 14.7 psi in air, salt water or fresh water. On the surface, our normal habitat, we are breathing air and are under one atmosphere of pressure. If we descend in water we are under 1 atm of pressure (from the surface), plus whatever the pressure of the water is. Air is easily compressed. The average aluminum 80 cubic foot cylinder is filled to 3000 psi, this

would equate to over 204 atm's , 3000/14.7 psi = 204. That's a lot of pressure.
first.One of the biggest reasons is if you look at your lungs as a closed, flexible container such as a balloon. If at 99 feet (4 atm of pressure) you take a breath on your regulator, hold your breath and begin to ascend. As you are going up the pressure around you is decreasing. This means, according to Boyles Law, that the volume in your lungs is increasing. So the balloon is increasing in size (volume). Increase the volume too much and the balloon will blow up. This could be your lungs and it is called an air embolism.

Don't ascend faster than 30 feet per minute

Don't Dive too Deep, Stay Down too long, or Come up too fast

DDA- Don't Dive Alone – and always know where your buddy is
Depending who you talk to, this one is usually under fire. The more experienced divers usually don't want to dive and "baby-sit" a newer diver. But, all agencies subscribe to the buddy system.

Keep Hydrated

Clear early and clear often

I was sitting in on a class offered by an instructor friend of mine. During the presentation on physiology and how important it was to equalize the ears he told his class that every day he does the Valsalva maneuver. He will squeeze his nose and gently blow a few times a day. His rational was that by clearing often we are exercising the Eustachian tube so it will work properly when we really need it to work. Talk about clearing early and often. I took this advice and started to use it myself. After seeing remarkable differences in my equalization, I started to teach my students this "secret". Who says you can't teach old dogs new tricks.

Plan your dive and dive your plan

Continue Your Education

Dive, Dive, Dive
To become a better diver, you dive. The more you dive, the better you become.

Practice Your Skills

Do A Refresher Course

Service Your Equipment

Always prepare for "what if"
Recently, I heard someone explaine that we could teach everything a person would need to know to dive in one hour. So, why do the academics take about 12 hours, pool work for about 8 hours, and 5 open water dives? The answer – for most dives the one hour would be more than enough, but what happens when a dive goes wrong? That's what all that other training is for.

Be Fit

Know the Dive Area

Use a Dive Flag

Dive Within Your Abilities

Gas Management

No reason to Panic, If you Have Air, You Have Time