

Germophobia? - Just give it a reasonable thought

As published in past articles of Alert Diver, microbes from different sources, transmitted via diving equipment, can be a true threat to scuba divers.

In fact, rented equipment and rinsing tanks can pool a high load of bacteria, fungi, viruses, and amoebas with the potential to spread diseases.

Don't think dive centers use bactericides in their rinsing tanks - because they probably don't

Or let's put it this way: some may, some may not. And even if they did, after 20 divers have put their equipment into these tanks following a dive, the microbial load would simply be too high to be handled efficiently by the disinfectant.

Sinking your regulator in the same tank with other divers' neoprene suits won't actually clean it, considering the habit of some to relieve themselves during the dive. Most dive centers provide separate rinsing tanks, one for neoprene suits and boots, one for regulators and masks, one for BCDs and so forth. But still, the microbial load will add up, the more divers put their equipment in there. As a result, a freshwater rinsing tank could quickly turn into a reservoir for a diverse circus of bacteria, viruses, and fungi. Considering the somewhat "international committee of divers" on a dive boat full of tourists of mixed nationalities, these microbes may be as diverse as their carriers - and therefore hard to be treated in case of an infection.

In times of global concerns about an ever growing microbial resistance against antibiotics - once an effective weapon against human pathogenic bacteria - this should make us think. Many great diving spots are located in less developed countries with lower hygienic, sanitary and health standards. In some countries you just can't drink tap water, so why would you rinse your regulator or your BCD bladder using the same water?

Rinsing tanks are actually there to protect the equipment from the corrosive effect of seawater, they cannot primarily protect against microbes. So you should simply rinse all your diving equipment separately with a hose and hang it somewhere to let it dry properly. If it is your own equipment, you can of course use disinfectants recommended by the manufacturer.

If the equipment is rented, you just have to rely on the dive center to clean it properly (which might happen, or not).

Why do we rinse diving equipment in freshwater tanks?

We mainly do this after diving in seawater. Salt has a very corrosive effect on all kinds of materials. In order to keep the equipment intact for as long as possible, we should rinse the salt off as best as we can. Therefore, disinfecting is something that needs to be done additionally.

What can you do to protect yourself from infections transmitted through the use of rental equipment?

First of all, you could use your own equipment and not share it with others - spouses excluded, for obvious

reasons – and avoid using rinsing tanks that have been overused by many. You could also ask for a fresh refill, if the dive center doesn't do it anyway – many do. This concerns mainly mask, snorkel, regulator, BCD, neoprene suit, any equipment coming into contact with your mucous membranes. It can also be useful to use your own scuba tank and boots.

Remember, when using your own equipment, you are the sole user and therefore the sole contaminator. This way you can reduce the possibility of another person passing on pathogens (bacteria, viruses, fungi) to you.

And, dear instructors and dive masters, if you have to try your student's regulator for demonstrative purposes or checking on equipment malfunctioning above water, then at least rinse it quickly before returning it to the student to avoid icky moments and/or spreading germs.

The BCD bladder - Clean it and disinfect it thoroughly

A BCD needs regular care. The bladder needs to be cleaned and disinfected also on the inside with a solution especially made for this purpose. A disinfectant can kill bacteria, viruses and fungi, which could originate from breathing air into your BCD, storing it in a warm place when it is still humid, or from other sources of contamination. Especially the BCD bladder and the oral inflator hose are prone to fungi and bacterial growth. Keep in mind that if you are using rental equipment, others may have blown in the BCD. Bladders that have not been maintained very well may grow a lot of fungi inside, so be aware of the fact that breathing from it may cause severe upper respiratory infections. Under normal circumstances, never breathe from a BCD.

After disinfecting the BCD bladder with disinfectant and rinsing it for several times with clean freshwater, it should be stored in a cool and dry place and with valves open.

As said, you won't probably be able to change things if you use rental equipments, but you can certainly take care of your own equipment!

Regulator, mask, snorkel, boots

Just apply disinfectant on the outer parts of the mouthpiece, then rinse with freshwater. Allow the regulator to dry off completely by hanging it up in a cool and dry place. Do not store it curled up in a bag. Mask, snorkel, boots can be disinfected and rinsed similarly.

Use disinfectants properly - read instructions first

Disinfecting or sanitising the equipment must be done properly, in order not to damage the equipment, which could then put you in even greater danger. Don't soak for too long, and again, rinse thoroughly with freshwater after use. Read instructions carefully.

To put it in a nutshell

- Own your own equipment – at least the essential parts that come into contact with your mucous membranes, the easiest barrier for pathogens to overcome.
- Use a recommended disinfectant and read the instructions for use first.
- Remove bacteria, viruses, and fungi by using a disinfectant which can actually kill them (e.g., [EW80 des](#) or any equivalent product recommended by the manufacturer of your dive equipment or your favorite dive shop).
- Always dry off your equipment in a well ventilated, cool and dry area. Damp equipment stored in a dive bag is a great place for growing fungi. Storage in warm, humid places enhances bacterial

growth.

- Under normal circumstances, never breathe from a BCD
- You can also wash your neoprene suit with a light detergent and soak it in disinfecting solution
- In case of rental equipment, choose the dive center wisely. If you feel it's unhygienic, find another one and dive with someone else.