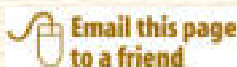


DIVING MEDICINE ONLINE



Comprehensive updated information about diving and undersea medicine for the non-medical diver, the non-diving medical professional and an excellent reference source for the diving medical specialist.



Disease Transmission Using Scuba Gear

This mishap probably can occur but does not happen often -- but the thought arises in the minds of those who fear using rental scuba gear or buddy breathing. There are many transmissible diseases that have the capability of being passed on to another through the use of unclean equipment. These conditions are caused by viruses, bacteria and fungi - some short-lived on inanimate objects, and some lurking and living in the moist confines of the crevices and tubes of unwashed scuba gear. Included among the viruses are HIV, HCV (Hepatitis C), influenza and herpes simplex. Bacterial infections include staphylococcus aureus, salmonella choleraesuis, pseudomonas aeruginosa, klebsiella pneumoniae and mycobacteris (tuberculosis); fungal infections include candida albicans.

The specter of getting HIV from CPR practice dummies has even caused a study to be done -- with live HIV virus. This study conclusively showed the use of routine cleansing methods (Propanol) to be effective in removing all traces of virus.

HIV is not spread by casual contact, such as shaking hands, hugging, touching objects handled by a person with AIDS, or by spending time in the same house, business, or public place. HIV is not spread by mosquitos or through food handled by a person with HIV. There is absolutely no risk of getting HIV from donating blood. HIV dies quickly outside the body and easily killed by

soap and by common cleansers and disinfectants such as bleach.

Buddy Breathing

This time-honored safety technique apparently is not even being taught in some courses. One wonders how much the HIV/AIDS epidemic has had to do with it's near demise. Here presented is a very good discussion of disease transmission risk by Larry "Harris" Taylor, Ph.D., Scuba Instructor, U of MI:

"Most people are concerned about HIV (AIDS) and herpes. That's fine ...but the reality is that, for the most part, these disease causing critters are fairly weak and not terribly robust. The major concern, as I understand it, is hepatitis ... a far more robust virus and one known to survive in saliva.

We believe buddy breathing is an essential survival skill ... by the end of our term, the students routinely are buddy breathing without mask, without one fin, and with the tank unsecured. Even though we believe the risk in a chlorine pool to be small, it is NOT zero. SO, we conduct our buddy breathing single regulator exchange exercises in the following manner:

The regulators are initially configured so that both come over the student's right shoulder. The octopus regulator has a longer hose. Prior to initiation of practice, the octopus regulator is removed from its holder ... its hose is placed through the space on the primary regulator that runs between the exhaust housing and the body of the regulator. This places the regulators side-by-side. The donor breathes off the primary ... the recipient breathes off the secondary. In this manner, the exchange process, the blowing bubbles while regulator is out of the mouth, the rhythm of the exchange and ability to swim and ascend while doing a single regulator exchange can be practiced. Since divers are breathing off different regulators, the risk of disease transmission is much lower than breathing from a common reg. It is the closest simulation that we have been able to develop. By the way, there are vaccinations available for hep B ... its a good idea for those dealing with lots of exposures to humans to consider these shots (mine was a series of three spaced over several months)-- "

Addendum: It is probably not a good idea for the diver infected with HIV to take the Hepatitis B vaccine. When possible, live virus vaccines should be avoided in persons who are infected with HIV. Gastrointestinal illnesses may be more frequent and severe than in other travelers. Food and water precautions, and a treatment course of an antibiotic will minimize the risk of severe disease. Many diseases, such as tuberculosis, leishmaniasis, and syphilis are more common and/or severe in immunocompromised hosts. HIV-infected travelers should be instructed to seek medical attention for pulmonary symptoms or fevers.

Rental Gear

This might be a problem if a dive shop had a large HIV positive clientele. However, the HIV virus is somewhat fragile, does not live long in saliva (due to immune globulins), and certainly would not seem to pose a hazard unless there had been blood admixture. Any risk at all would be due to the possibility of bleeding from regulator or snorkel injury to the gums or nosebleeds into the mask. It is this possibility that should cause dive shops to have a protocol of rental gear cleansing and sterilization. Let me finish by saying that there have been no reported cases of HIV infection by the transmission of saliva. Transmission must go directly from one person to the other very quicklyt he virus does not survive more than a few minutes outside the body. Human bites with blood, yes -- but none with coughing, openmouthed kissing. CPR dummies, or scuba gear.

Here are some selected Links:

- [Prevention](#)
 - [AIDS Basics](#)
 - [HIV/AIDS transmission by saliva](#)
 - [Saliva and AIDS/HIV](#)
 - [Kissing, biting, saliva, sweat and tears: CDC](#)
 - [Cleaning and Sanitizing Dive Gear](#)
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