

Incidents regarding lung packing

Lung packing, also known as carpa or buccal pumping, is a technique employed by freedivers to increase the pressure in their lungs above normal. This technique is believed to assist in achieving greater depths, distances and time. Recent events over the several last years have however indicated that this technique is not without risk.

Lung packing is known to have caused various ailments, including, but not limited to, air in the arteries (air embolism), air between the lungs (pneumomediastinum), pneumothorax, and lung bleeding. All of these ailments can be potentially fatal when insufficiently recognized and treated. Factors influencing the risk of an incident have been known to be pressure increasing poses (stretching, yoga during lung packing) and the combination of extreme lung packing and certain disciplines (constant weight without fins, dynamic without fins). Bloodshift and / or a lung squeeze might also affect the lung pressure after a deep dive when aided with lung packing by further reducing the physical volume of the lungs.

To protect yourself from these incidents, it is therefore advised to:

- a. Avoid dry lung packing.
- b. Never increase lung packing volumes significantly compared with previous volumes.
- c. Never combine lung packing and pressure increasing postures (yoga or otherwise).
- d. Be careful when considering lung packing and diving (pool / depth) without fins.
- e. Instructors, trainers and experienced freedivers should warn (new) freedivers when they see potentially dangerous lung packing behavior.
- f. It is strongly recommend to report any negative experience with lung packing, both in the past as in the present to the AIDA MSC to further improve safety and knowledge about this particular topic.



Rik Rösken
Medical and Science Officer