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**LOSS OF MOTION CONTROL AND/OR LOSS OF CONSCIOUSNESS
DURING COMPETITIONS IN BREATH-HOLD DIVING**

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BACKGROUND: Since the first official world championships in breath-hold diving (1996) a sport has developed where athletes compete in various disciplines of breath-hold diving. One of the rules is that the diver should surface from a dive without showing any symptoms of hypoxia. Depending on the severity of hypoxia a diver may suffer disqualifying symptoms such as loss of consciousness (LOC) or Loss of Motor Control (LMC), the latter including symptoms such as confusion, affected postural control, spasms or speech problems.

MATERIALS AND METHODS: Data was collected from results of the major international competitions, organized by AIDA (ASSOCIATION INTERNATIONALE POUR LE DÉVELOPPEMENT DE L'APNÉE) in 1998, 2001 and 2004. Data was analyzed for frequency of LMC and LOC during constant weight diving and during static apnea. IN constant weight diving, the diver swims down as deeply as possible along a vertically suspended rope (current record 103 m). In static apnea the diver strives for maximal duration, floating motionless face down in a pool (current record 8.85 min).

RESULTS: World Championships in 1998 and 2001: a total of 256 constant weight dives with 24 cases (9%) of disqualifications, and 237 Static apneas with 12 disqualifications (5%). During the Pacific cup in 2002 and the World Championships in 2004 a distinction was made between LOC and LMC as causes of disqualification; a total of 137 constant weight dives resulted in 4 LOC and 3 LMC (5%) while 136 performances of static apnea yielded 6 LMC (4%). It would appear that LOC/LMC during competitions in constant weight diving has declined. Video footage of typical hypoxic incidents will be shown.

CONCLUSIONS: Despite the relatively high incidence of dramatic symptoms it is noteworthy that there have been no reports of symptoms of fatal accidents or injuries during any of the above mentioned competitions.