Mixed martial arts - *Impact on hearing and tinnitus prevalence*

**Background:** Mixed martial arts (MMA) is a sport gaining popularity, especially amongst young individuals. This sport contains fist, kick, elbow and knee blows to the head, which are risk factors for hearing deficits associated with head trauma.

**Methods:** Pure tone audiometry, speech in noise test and tympanometry was performed on a group (N=11) of experienced MMA practitioners. In addition, perceived hearing status, including occurrence of tinnitus amongst the athletes (N=64), were assessed through an internet based questionnaire.

**Results:** Hearing levels were significantly worse at high (3000, 4000, 6000 Hz) frequencies amongst the competing MMA-athletes compared to the non-competing athletes tested with tone audiometry. A weak correlation between the length of MMA practice and perceived tinnitus was found.

**Conclusion:** Impact on hearing in MMA-athletes was found mainly in high frequencies amongst professional athletes. The findings are compatible with studies investigating hearing deficits related to sports-related concussion. Further, more in-depth longitudinal studies are needed to assess the individual consequences of practicing MMA amongst both men and women.