

## ***P7: Noise exposure in cycling activity: a preliminary study***

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**Introduction:** Urban noise is nowadays a major problem in society, reaching values likely to cause health disorders. Considering that cyclists may be exposed to urban noise as well as to other noisy activities (e.g. personal listening devices), and that previous studies addressing this subject are scarce, this issue becomes important.

**Objectives:** This study aims to analyze the cyclists' perceptions about the noise levels that they can be exposed, as well as to characterize the sound pressure levels in the course of their activity.

**Materials and Methods:** A self-report questionnaire was developed and applied to 164 cyclists to analyze their perception about the noise levels that they can be exposed, as well as their hearing effects. Measurements of sound pressure levels were taken three times in three distinct areas: predominantly urban, moderately urban and predominantly rural areas.

**Results and Discussion:** Results showed that cycling is mostly used to practice sports (54.9%). Most of respondents reported that usually they run more than 5km per week (89%), mostly on the road (75.6%) and in the morning out of rush hour (35.4%). Although 51.8% of respondents feel the presence of uncomfortable noise during cycling, 55.5% did not feel any change after cycling. Younger cyclists tend to listen more music during cycling practice. The values of the noise measurements varied from 69.9 to 79.3 dB(A).

**Conclusion:** This study showed that cycling practice can be harmful to cyclists' health, not only due to the noise levels to which they can be exposed, but also because they generally use personal listening devices. Considering that most of the cyclists perform this activity for leisure, and that they can be also exposed to dangerous occupational noise levels in the course of their professional activities, increasing the risk of noise induced hearing loss, it's important that they are aware of hearing protection.

### **References**

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