

Title: Musicians' Pain: Altered Pain Processing in Musicians

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Up to 90% of professional musicians are affected by various pain syndromes, that can have detrimental personal and professional consequences. Previous research has shown that pain perception is indeed altered in musicians. The aim of our study is to investigate the pain processing in musicians for noxious hand and foot stimulation. We used an electroencephalogram to record the cortical responses to painful heat stimuli applied at the hands and feet of 22 musicians and 22 non-musicians. We found a significant hand-foot difference between the groups for the evoked responses' latency and amplitude. These results show that intense musical training can indeed modify pain processing via neuroplastic alterations. Therefore, when encountering pain in musicians, their unique context has to be taken into account. Moreover, these findings are relevant for general pain research as they illustrate the neuroplastic influence of fine motor training on pain processing.