

The effects of mindfulness meditation and relaxation on brain activity

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Abstract

Meditation aims to improve one's psychological capacities by encouraging a calm and focused mind. Studies have observed positive benefits of meditation on health and cognition, such as reduced anxiety and enhanced executive control. Meditation has even been shown to alter brain structure and function. These benefits are mainly observed in long-term meditators, with few studies examining the effects of short-term meditation. The current study investigated whether there are immediate benefits of meditation. Electroencephalography was recorded while cognitive tasks were completed, we also collected subjective well-being measures before and after exposure to either a brief meditation or a relaxation story. Post-intervention reaction time was shorter in meditators compared to the relaxation story. Both groups exhibited increased well-being, smaller N2s, and larger P3bs post-intervention. These results suggest that while mindfulness meditation may improve conflict monitoring, both interventions appear to improve well-being. Overall, there may be immediate benefits of meditation for even novice meditators.