

## Music listening as a means of stress reduction in daily life.

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## **Abstract**

The relation between music listening and stress is inconsistently reported across studies, with the major part of studies being set in experimental settings. Furthermore, the psychobiological mechanisms for a potential stress-reducing effect remain unclear. We examined the potential stress-reducing effect of music listening in everyday life using both subjective and objective indicators of stress. Fifty-five healthy university students were examined in an ambulatory assessment study, both during a regular term week (five days) and during an examination week (five days). Participants rated their current music-listening behavior and perceived stress levels four times per day, and a sub-sample (n = 25) additionally provided saliva samples for the later analysis of cortisol and alphaamylase on two consecutive days during both weeks. Results revealed that mere music listening was effective in reducing subjective stress levels (p = 0.010). The most profound effects were found when 'relaxation' was stated as the reason for music listening, with subsequent decreases in subjective stress levels (p  $\leq$  0.001) and lower cortisol concentrations (p  $\leq$  0.001). Alpha-amylase varied as a function of the arousal of the selected music, with energizing music increasing and relaxing music decreasing alpha-amylase activity (p = 0.025). These findings suggest that music listening can be considered a means of stress reduction in daily life, especially if it is listened to for the reason of relaxation. Furthermore, these results shed light on the physiological mechanisms underlying the stress-reducing effect of music, with music listening differentially affecting the physiological stress systems.

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KEYWORDS: Alpha-amylase; Ambulatory assessment; Cortisol; Music listening; Stress reduction

PMID: 26142566 [PubMed - indexed for MEDLINE]







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