

Abstract

The diving response is a combination of changes in the body as a result of face immersion in cold water with simultaneous apnea. Bradycardia, a slowing of the heart rate, is one of many noticeable parts of the diving response whose purpose is to create means for longer lasting dives by reducing the use of oxygen and prioritizing the essential organs. The diving response can be affected by psychological factors and the study conducted revolves around music as form of psychological factor, investigating the effect of listening to different music genres on the bradycardia included in the diving response. Data was collected from 20 subjects where each performed three trials designed to activate the diving response; one without music, one with classical background music and one with melodic metal background music. The results were presented in a bar graph showing the average heart rate reduction per trial type. When solely including data from trials where the diving response surely was active the results were very clear; in order from highest to lowest, the arrangement without background music, with classical music, and with melodic metal music. Without considering the factors that possibly could have affected the reliability of the results the conclusion that can be drawn is that music creates an increase in heart rate where metal music has the biggest effect. The study can be useful for determining the ideal circumstances for free-diving events and other water activities. Investigating further into the diving response and music can also make progress in finding new ways in dealing with stress.