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Cardiorespiratory Coupling: a Review of the Analysis Methods

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Interaction between cardiovascular and respiratory systems were studied intensively over the last few decades, in order to understand the principles of cardiorespiratory interactions in healthy and non-healthy subjects. Different physiological conditions such as REM sleep, anesthesia, stress, post-stress were used in order to determine and analyze the hidden parameters, that regulate the synchronization between these two integrated physiological systems and their behavior. This paper aims to review the most common methods of analysis of the cardiorespiratory coupling and their capacity to provide additional information for diagnosis and prognosis in medicine.