



Universität
Basel

Departement für
Sport, Bewegung und Gesundheit



UNIVERSITÄT BASEL
Departement für Sport, Bewegung und Gesundheit

Master thesis

The role of Cardiopulmonary Exercise Testing for primary and secondary prevention of chronic obstructive pulmonary disease. A position paper.

Topic: Cardiopulmonary exercise testing (CPET) is a technique used to measure respiratory gas exchange. Specifically, oxygen uptake (VO₂) and carbon dioxide output (VCO₂) during an incremental physical exercise test on a cycle ergometer. Measurements of respiratory gases and their relation to ventilation (VE) and heart rate (HR) are continuously measured until volitional failure during the incremental stress test, and during the subsequent recovery period. This analysis provides information about maximal exercise capacity and helps in the diagnosis of lifestyle- or disease-related to cardiovascular capacity. The clinical importance of CPET as a tool for differential diagnosis and estimation of severity of **chronic obstructive pulmonary disease (COPD)** has become more recognized. Although there are scientific journal articles concerning the role of CPET in the diagnosis and prognosis of COPD, CPET is definitely underutilized.

Aim: The aim of this thesis is to objectively review the available literature based on clear criteria for the first time. This paper should provide clinicians and researchers with an overview of the available evidence concerning the different CPET parameters for primary and secondary prevention of COPD.

Methods: Systematic literature research

Start: immediately

Prerequisite: Good English knowledge, good scientific writing skills and diligence.

If you are interested in the topic or would like more information please contact Jonathan Wagner, jonathan.wagner@unibas.ch, Tel: 061 207 47 08

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