



Exercise terminology

Physical activity is any bodily movement produced by the contraction of skeletal muscles that increases energy expenditure above the resting level. It may comprise purposeful exercise (planned, structured, repetitive movement for fitness) but also daily movement like walking or gardening.

Exercise is a subset of physical activity that is ***planned and structured***, in which muscle contractions are performed with the explicit intent of ultimately improving or maintaining one or more components of physical fitness (i.e., aerobic capacity, muscle strength, power, and endurance, body composition, balance, coordination, or flexibility) and/or achieving a specific health benefit.

Physical fitness is described as a set of attributes or characteristics that individuals have or have achieved that relates to their ability to perform physical activity. Specifically, **cardiorespiratory fitness** reflects the integrated ability of the cardiovascular and respiratory systems to supply oxygen to skeletal muscle (i.e. mitochondria) for the energy production needed during physical activity.

Ross, R., et al. (2016). Importance of Assessing Cardiorespiratory Fitness in Clinical Practice: A Case for Fitness as a Clinical Vital Sign: A Scientific Statement From the American Heart Association. Circulation, 134(24), e653–e699.



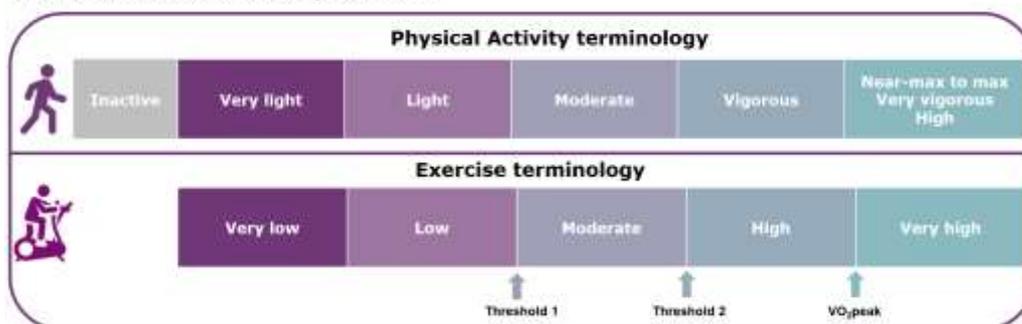


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Although **exercise intensity** is an important determinant of physical fitness (often expressed as maximal oxygen uptake (VO_{2max} or VO_{2peak} (in patients))), health benefits of regular exercise, inconsistent use of terms to define exercise intensity creates uncertainty for practitioners and limits the optimal prescription of exercise to improve health and physical fitness. A recent consensus statement was recently published, with the aim to apply standard terminology to describe exercise intensity for physical activity, exercise, and performance.

For **aerobic exercise**, the use of metabolically driven thresholds to determine exercise domains is a preferred method to define exercise training categories since these intensities produce similar physiological stresses in individuals with different exercise capacities. Thresholds are the results of an apparent change in metabolism (usually reflected by changes in oxygen uptake, carbon dioxide production, ventilation, or metabolites in the muscle/blood). The first detectable change in metabolism is often termed the first metabolic/ventilatory threshold, whereas the second detectable change in metabolism is often termed the second metabolic/ventilatory threshold.

Aerobic exercise intensity domains

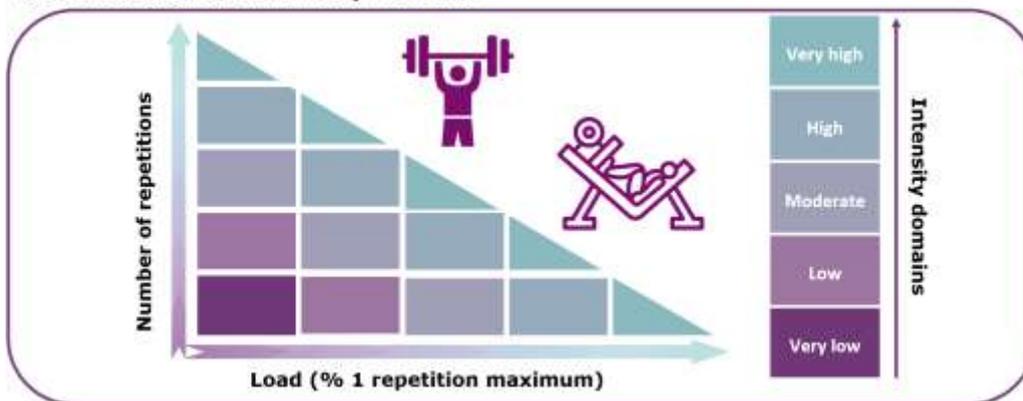




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Resistance training intensity is determined by both load (mostly expressed as a percentage of maximal strength or the 1RM (1 repetition maximum; i.e. the heaviest weight an individual can lift for one complete repetition with good form) for each exercise) and the number of repetitions performed, which together will determine proximity to neuromuscular failure.

Resistance exercise intensity domains



Based on: Bishop D. et al. (2025). Physical Activity and Exercise Intensity Terminology: A Joint American College of Sports Medicine (ACSM) Expert Statement and Exercise and Sport Science Australia (ESSA) Consensus Statement. *Medicine and science in sports and exercise*, 57(11), 2599–2613.