

Submaximal Fitness Testing: A Safer, More Inclusive Approach to Fitness Assessment

Fitness assessments play a key role in understanding a person's current health status and in designing effective training programs. Historically, maximal exercise tests—which require individuals to push themselves to their absolute limits—were the go-to method. However, this approach can be demanding, particularly for beginners or people with health conditions.

Submaximal exercise tests offer a practical alternative. These assessments provide information about cardiorespiratory fitness without the intensity and risks associated with maximal exertion, making them a safer and more accessible option for a wider range of people.

Advantages of Submaximal Testing

Submaximal tests take a more inclusive approach to fitness assessment. For example, someone recovering from an injury or an older adult may find a maximal test too strenuous. Submaximal protocols can be adjusted to accommodate different fitness levels, making them a more practical choice. This adaptability has contributed to their growing popularity among fitness professionals, especially in the UK.

A key distinguishing feature of submaximal tests is their ability to estimate VO_2max —an important marker of aerobic fitness—without requiring all-out effort. This is done by measuring physiological responses such as heart rate and oxygen consumption during lower-intensity exercise.

These measurements, combined with validated equations, are then used to predict VO_2max . As a result, fitness assessment becomes safer and more manageable for a broader population, making submaximal exercise testing a valuable tool for personal trainers and health professionals.