

The Physiological Evaluation is an Absolute Necessity to Improve Physical Fitness

التقويم الفسيولوجي ضرورة حتمية لتطوير
اللياقة البدنية

هأسسة نطاندنى فسيولوجى هةرة ثيويسة بو
ثيشخستى تواناى جةستةيى

Dr. Akram Amin

What is Physiological Evaluation

It means the set of physiological tests that can be made in the laboratory or in the field, which gives an objective picture of the functionality of multiple organs of the body whether it is at rest or effort

physiological measurements to monitor the physical training intensity

- The Use of Heart Rate .
Heart Rate Training Zone & Percentage
- The Use of Vo_2 Max.
Direct & Indirect
- The Use of Lactate Acid.
Lactate Threshold

Factors can influence the outcome of an evaluation test

- the test environment – surface (track, grass, road, gym)
- the athlete's prior test knowledge/experience
- accuracy of measurements (times, distances *etc*)
- is the athlete actually applying maximum effort in maximal tests
- inappropriate warm up
- people present
- the personality, knowledge and skill of the tester.

FIELD TESTING

- Vertical Jump.
- T Drill test.
- Hexagon Test.
- Rast Test (Running Anaerobic Sprint Test)
- Multi stage fitness test (Beep)
- Cooper Test.
- Yo-Yo Test.

LABORATORY TESTING

- **EMG** (Electromyography is a technique for evaluating and recording the electrical activity product by skeletal muscles).
- **Vo2 Max** (the maximum or optimum rate at which the heart, lungs, and muscles can effectively use oxygen during exercise, used as a way of measuring a person's individual aerobic capacity).
- **Wingate Test** (The **Wingate test** is an anaerobic **test**, most often performed on a cycle ergometer, that is used to measure peak anaerobic power, as well as anaerobic capacity).

The results from an evaluation test can be used to

- predict future performance
- indicate weaknesses
- measure improvement
- enable the coach to assess the success of the training program
- place the athlete in appropriate training group
- motivate the athlete.



Physical Performance and Abnormalities
Need to Improve Physical Performance

THANK YOU