

## Video 9 - Muscular Fitness – Push-up test of muscular endurance

*'All information contained in these videos is taken from the ACSM's Guidelines for Exercise Testing and Prescription, 10<sup>th</sup> Edition'*

Muscular endurance is the ability of a muscle group to execute repeated muscle actions over a period of time sufficient to cause muscular fatigue, or to maintain a specific percentage of the 1-RM for a prolonged period of time.

A simple field test of upper body muscular endurance is the push-up endurance test. An appropriate warm up should be conducted prior to performing this test.

### Protocol

1. Starting position
  - a. Men – 'Down' position – hands pointing forward and under the shoulder, back straight, head up, using the toes as the pivotal point.
  - b. Women – modified 'knee push-up' position – legs together, lower leg in contact with the mat and ankles plantar flexed, back straight, hands shoulder width apart, head up, using knees as pivotal point.
2. The subject must raise the body by straightening the elbows and return to the 'down' position, until the chin touches the mat. The stomach should not touch the mat.
3. For both men and women, the subject's back must be straight at all times, and the subject must push up to a straight arm position.
4. The maximal number of push-ups performed consecutively without rest is counted as the score.
5. The test is stopped when the subject strains forcibly or unable to maintain the appropriate technique within two repetitions.

### Interpretation

Total number of completed push-ups can be compared to normative data according to age and gender using table 4.11 (P102)