

TALENT IDENTIFICATION TESTING SESSION

Rowing Victoria invites individuals to be screened utilizing the National Talent Identification and Development (NTID) test kit to assess your potential for high performance rowing.

The test kit is currently being utilized around Australia to identify individuals with ideal 'rowing characteristics'. The tests do not require people to have any rowing background.

This testing opportunity provides a pathway for raw novices to be fast tracked into a high performance program if outstanding results are achieved. Rowing Victoria will contact candidates shortly following the testing session.

Testing is free and can be conducted at a time to suit. The tests used are a result of extensive scientific research and practice and have identified athletes who have trained to become World and Olympic Champions.

While there is much more to becoming a champion than having outstanding scores in the following areas, these tests do concentrate the development of expertise on those who have the most likelihood of achieving success.

Males must **either** weigh between 68 – 75kg **or** be over 190cm. Females must **either** weigh between 55 – 62kg **or** be over 180cm in height. Applicants close to these parameters may be considered.

*If you would like to participate in a testing session please email
Nick Moran.*

talentidentification@rowingvictoria.asn.au

WHAT TO EXPECT - Test Battery

The test procedure is not exhaustive and should only take approximately 30minutes. Suitable clothing for testing is required – training attire with running shoes.

The tests cover anthropometrical, strength and endurance areas.

ANTHROPOMETRIC (body measurements)

Height, weight and arm span. In many sports today there are certain body types that favour different activities. For example the gymnast who is small and flexible is advantaged in body rotation activities. In rowing the methods of moving the boat favours the use of long levers of arms and legs to obtain maximum propulsion.

The use of a combination of height and arm span produces the easiest field test to assess this without spending large amounts of time and quality control measuring each limb. The arm span in relation to the height also indicates a greater shoulder width, which is useful in evaluating the basic bone structure or robustness of the athlete as required for intensive training. Most people have an arm span almost equal to their height. Athletes with an arm span greater than their height indicate greater lever length and are usually able to handle greater intensity of training e.g. weights.

STRENGTH

Modern rowers require a combination of strength and endurance for the 6-7minute event. Contrary to much common literature, our research indicates that endurance is easier to improve (with modern training methods) than strength. For example it is easier to produce endurance in a large weightlifter than it is to make a lean marathon runner powerful.

Most strength tests focus on the peak force at part of the range, whereas the force in most sports is the result of force over a distance (work done) and the force must be held throughout the range of movement. Even in impact situations such as the golf shot, the tennis hit, or kicking a football, the best results come from a smooth application of force over an extended time rather than a sledgehammer type instantaneous force application.

The Concept II Dyno that we use measures work in Newton metres and we have organised the test protocol in several ways (for example testing the average of three repetitions with 5 seconds between repetitions) to minimise any variations that may arise from user error.

There are three exercises, which measure leg press, arm press and arm pull to produce an overall picture of general body strength. Much of this is innate strength and not trained strength because it is in a different plane of action from most common activities. Occasionally an athlete who has done a lot of leg press work or squats will show up on this exercise but more often naturally strong athletes will show out even with no training history.

ENDURANCE

The rowing sport scientists explored many different forms of evaluating the endurance ability, which contributes 70-80% of the energy in a rowing race. Most of the tests produced biased or skewed results from prior training or prior learning (skill differences). For example the exercise bike favoured cyclists and the bleep test favoured the small light endurance runner and heart rate based tests favoured the low basal and low max heart rate individual.

The arm leg bicycle produced the closest correlation with laboratory maximum oxygen uptake tests (VO₂ max) done in a laboratory.

This test also has these two advantages:

1. Virtually no person has experience on the machine, which makes everyone's skill factor the same.
2. The test involves some upper bodywork, which is important for rowing.

The test is conducted by increasing the tempo each minute until the subject cannot maintain the set tempo. The highest score represents the maximum aerobic capacity measured in absolute terms (not relative to body weight because rowing is a weight supported activity). This also enables a little observation by the staff of the mental toughness of the subject as they progress. Surprisingly there is often a tough competitor in a group of students that have little or no competitive experience.

All tests are easily administered and it is possible to strictly control and repeat the evaluation in every venue so that the scores can be compared across the country. The machines are calibrated regularly (the strength test Dyno is calibrated prior to every session).