

Performance Point

Field Testing

by Wendy Pethick, Physiologist, Canadian Sport Centre Pacific

June 2007

In May, 2006 the Canadian Sport Centre Pacific Mobile Lab went on its first tour of BC travelling to the Canadian Sport Centre Pacific Vancouver Island, Northern BC, Interior BC and Okanagan Centers. The inaugural tour was focused on educating regional coaches and athletes on the value of adding sport science to their training program. Workshops were offered for coaches in each region to introduce how sport science fits into their program and the concept of the mobile lab and its services. In addition, general field-style testing, which was open to all interested athletes, was conducted.

It became apparent that the interest and service demands exceeded the Mobile Lab's capacity to deliver sport performance services and as a result, the Canadian Sport Centre Pacific Mobile Field Testing kits were developed. These kits provide the necessary tools for service providers to assess the physiological parameters of the athletes using field tests aligned with the Long Term Athlete Development model. A future goal is to develop an athlete database and physical profiles of BC athletes, with the consequent development of age and sport specific norms through Canadian Sport Centre Pacific's Sport Information Database (SID).

The field testing kits have been completed and are currently being launched, with the Canadian Sport Centre Pacific Centres participating in educational workshops. These kits provide equipment for a general battery of tests to assess leg power, speed, balance and coordination, muscular endurance and aerobic power. The various tests were selected based on several factors including:

- established validity and reliability
- cost (equipment and facilities)
- ease of administration (individual versus group testing)
- population (age and sport specificity)
- available norms (from the May 2006 mobile lab tour)

NOTE: Development of sport and age specific norms will be ongoing. Most of the norms presented in these kits are age specific, but based on an average population, not an athletic population (from the May 2006 mobile lab tour).

The base Field Testing Kit includes:

- testing equipment
- data sheets
- instructional cards for each test
 - description of fitness variable being tested
 - includes detailed outline of protocol
 - pictures of test administration
 - warm-up and cool-down instructions
 - criteria for test termination
- instructions for care and calibration of equipment
- testing workshops and education delivery for coaches



Jump mat

Powering Sport Performance

The Canadian Sport Centre Pacific, in partnership with the network of Canadian Sport Centres and PacificSport Centres, delivers sport performance programs to help athletes and coaches win medals for Canada. Working in support of our national and provincial sport partners, the Canadian Sport Centre Pacific is creating a stronger system for the development of athletes, coaches, performance enhancement teams and sport performance facilities. www.cscpacific.ca

Performance Point

Performance Factor	Test(s)
Physical Characteristics	Height and Weight
Aerobic Power	Leger 20 Metre Shuttle
Muscular Strength & Endurance	Paced Push-up; Partial Curl-up
Speed and Agility	20 Metre Sprint; T-test (agility)
Power	Vertical Jump
Suppleness	Sit and Reach



20 metre shuttle run

Benefits:

- Easy to use field tests for Learn to Train, Train to Train, and Train to Compete athletes
- Implements coach driven physiological testing and monitoring
 - Aids in the development of training programs
 - Helps monitor fatigue and overtraining
 - Assists in periodisation and long term athlete development
- Identifies strategies and tactics for competition
- Provides coach education to support the use of Field Testing Kits

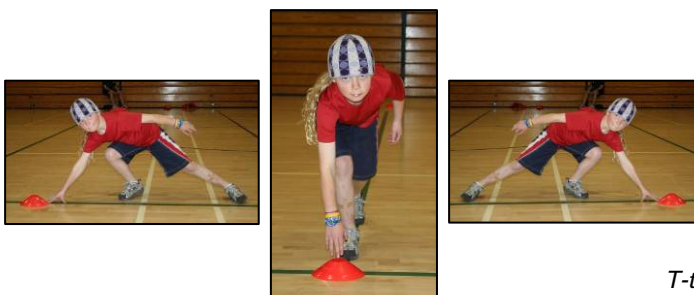
Limitations:

- Available norms are based on the average population – these tests will become more meaningful to the athletes and coaches as data for each athlete is collected and compared over time and sport specific norms are developed
- The test is only valid and reliable if the protocol is strictly adhered to and the equipment is calibrated
- A maximal effort is required to elicit valid and reliable results – clear instructions by the test administrator are critical as is athlete motivation

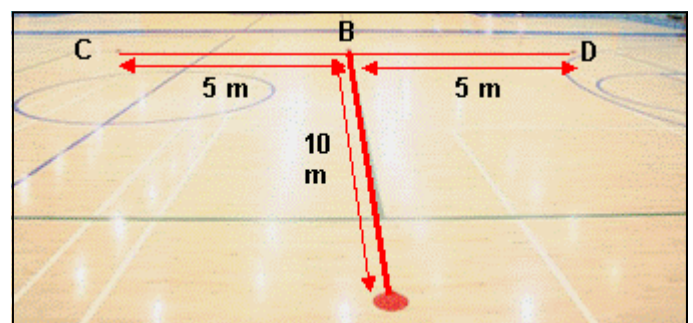


Partial Curl-up

For more information, please contact Canadian Sport Centre Pacific Performance Services.



T-test



Powering Sport Performance

The Canadian Sport Centre Pacific, in partnership with the network of Canadian Sport Centres and PacificSport Centres, delivers sport performance programs to help athletes and coaches win medals for Canada. Working in support of our national and provincial sport partners, the Canadian Sport Centre Pacific is creating a stronger system for the development of athletes, coaches, performance enhancement teams and sport performance facilities. www.cscpacific.ca