



# Physical Standards and Testing Protocol

## Vertical Jump Test

- Equipment: Vertec; or chalk board with 1cm markings on it
- Rational for inclusion: vertical jump is a measure of explosive power
- Protocol: Vertical Jump
  1. Athlete stands next to the Vertec or chalkboard and reaches up with their right arm as high as this can reach. Zero the Vertec or make a mark on the chalkboard.
  2. The athlete is then instructed to jump as high as possible and either hit the Vertec or slap the chalkboard at the highest point. The jump is from a stationary start and no stepping into the jump is allowed.
  3. Repeat 3 times. If the athlete hits a higher mark on the 3<sup>rd</sup> jump, a 4<sup>th</sup> jump is allowed and is the final jump. Record the score.

## 40 sec. box jump (U12) / 60 sec. box jump (U14, U16 and FIS)

- Equipment: Either a 30cm (U12 and U14) or 40cm (U16 and FIS) box
- Rational for inclusion: The box jump is a measure of anaerobic capacity.
- Protocol: 40/60 sec box jump
  1. Athlete stands on the box. On “go”, he or she is to perform as many box jumps as possible. The jumping goes from the top of the box, jumping up and down alternating between left and right sides.
  2. The athlete is instructed to jump and land in the middle of the box to ensure maximum safety.
  3. On jump is recorded when the athlete lands back on top of the box. Count the number of jumps before the tester yells “stop”. Incomplete jumps are not counted.

## 20m Shuttle Run

- Equipment: Beep test recording (CD or iPod), Speaker to play CD or iPod, Marking cones, 20m tape measure (65.61ft).
- Rational for inclusion: The beep test is a test of aerobic fitness.
- Protocol: 20m shuttle
  1. Mark out two lines, 20m apart on a non-slip surface
  2. Check that the athlete has good footwear
  3. The test starts with a countdown beep. The athlete runs along the 20m track and gets to the line in time with the beep. The athlete then turns around and runs back, getting back to the start line in time with the next beep. The beeps get closer together as the test progresses, so the athlete has to run faster to stay in time. The test is a maximal test and the athlete is encouraged to run in time with the beeps for as long as possible.
  4. When the athlete can no longer keep in time with the beep and falls behind the beep by more than 1 meter, a verbal warning is given. If they do not make it back in time with the beep on the next lap, the athlete is asked to stop and the score for the stage/level is recorded.
  5. It is important that the athletes run in time with the beep and does not run ahead of it. This will cause additional fatigue.

## Trunk Stability Push-Up (TSPU)

- Equipment: None
- Rational for inclusion: To test core strength and stability
- Protocol:
  1. The individual assumes a prone position with the feet together. The hands are then placed shoulder width apart at the appropriate position per the criteria (Males: Thumbs in line with the forehead. Females: Thumbs in line with the chin.).
  2. The knees are then fully extended and the ankles are dorsiflexed. The individual is asked to perform one push-up in this position.
  3. The body should be lifted as a unit. There should be no lag in the lumbar spine when performing this push-up. If the individual cannot

perform a push-up in this position, the hands are lowered to the appropriate position per the criteria.

- Verbal Instruction:
  1. "Lay on your stomach with your hands positioned shoulder width apart (appropriate hand placement)."  
Males: Thumbs in line with the forehead  
Females: Thumbs in line with the chin
  2. "Raise you toes toward you shin and place them on the ground. Extend your knees off of the ground.
  3. "Maintain a rigid torso, raise yourself as one unit with no lag in the low back into a push-up position."
  4. Repeat 3 times if necessary
- Scoring  
Score a 3: Males perform 1 repetition with thumbs aligned with the top of the forehead.  
Females perform 1 repetition with thumbs aligned with chin.  
Score a 2: Males perform 1 repetition with thumbs aligned with chin  
Females perform 1 repetition with thumbs aligned with clavicle.  
Score a 1: Males are unable to perform 1 repetition with hands aligned with chin.  
Females are unable to perform 1 repetition with thumbs aligned with clavicle.

## Box Crunch

- Equipment: 30 and 40 cm box, rubber Olympic lifting plates
- Rational for inclusion: To test core strength and endurance
- Protocol:
  1. The individual is laying flat on the floor and assumes a supine position with their feet on the box. The knee should be at a 90degree angle. Rubber Olympic lifting plates can be added on top of the box to assume the appropriate position. Hamstrings should be touching the box.
  2. From this supine position the individual will interlock their fingers behind their head (their fingers/hands must stay in this position throughout the duration of the test). A second person will hold the ankles of the individual being tested.
  3. From the starting position with their hands behind their head and therefore hands touching the ground, they will perform a crunch where the elbows touch above the kneecap. The tip of the elbow must pass above the kneecap as well as the hands touching the ground every repetition in order for that rep to count.
  4. The exercise is performed to failure when the individual can no longer get their elbows past the top of the kneecap or requires a longer (1 second or longer) pause between reps.

## PCST Physical Standards

	Shuttle	Box	Vertical	TSPU	Crunch
FIS Men	10.5	70	58cm	3	30
FIS Women	9.5	60	48cm	3	30
U16 Men	10	60	55cm	3	25
U16 Women	9	55	46cm	3	25
U14	8	55	40cm	3	20