

# TBR S&C TESTING PROTOCOL

## STRENGTH / MUSCULAR ENDURANCE

### TIMED PLANK HOLD

This test is to determine the core strength endurance.

Procedure:

- Athlete holds a prone/plank position resting on their hands and toes. Shoulders over the hands, maintaining a flat spine, straight legs and straight arms. Loss of a relatively straight position results in ending of the test / timer stops.

### MAXIMUM PUSHUPS in 60sec

This test is to determine the relative strength endurance of the upper body muscles, including trunk postural muscles.

Procedure:

- The athlete lies on prone on the ground with their hands off the ground, ready to complete a pushup
- On the signal to start, the athlete puts their hands on the ground and presses to lift their chest, hips, thighs off the ground simultaneously to a full extension of the arms position. The body must maintain this “rigidity” throughout the test
- The athlete then lowers their body down until the whole body is again in contact with the ground and the hands are off the ground (back to the start position)
- This counts as 1 repetition.
- The athlete continues the method for 60sec
- Only correctly completed full pushups are counted in the total

### MAXIMUM CHIN UPS (pronated grip)

This test is to determine the relative strength endurance of the upper body muscles in a pulling action. The bar height for this test should be such that the athlete cannot reach the bar without jumping up to it.

There are true form chin ups (described below) and those where the athlete uses momentum to complete the exercise (cheats).

Procedure:

- The athlete hangs from the bar in full extension, with a pronated grip
- Maintaining a “rigid” body the athlete lifts their body until the chin clears the top of the bar
- The athlete then lowers themselves back to the start position / full extension in a controlled manner
- The athlete continues the method for until they can no longer lift their chin above the bar
- We recommend the athlete complete as many “true form” chin ups as possible then continue with “cheats” as long as they are from full extension. Both numbers are recorded – X/Y where X = # of “true” reps and Y = total # including cheats.

## **POWER / EXPLOSIVE STRENGTH**

### **Single Leg Hop (Left & Right)**

The purpose of this test is to measure the combined power (explosive strength) of each individual leg as well as the functional capacity of each lower limb complex.

Equipment: Tape measure, piece of tape to mark start.

Procedure: Starting from a marked starting position on one leg, with the toes behind the mark, the athlete hops forward as far as they can landing on the same leg they took off on. The athlete must 'stick' the landing and show controlled balance before moving from the landing position or lowering the other leg for the result to count. The assessor measures to the heel (or part of foot closest to the starting marker).

## **ANAEROBIC FITNESS**

### **90sec BOX TEST**

Equipment: 40cm box and stopwatch

Procedure:

- the athlete will start beside the box on whichever side they are most comfortable starting on; i.e.: left shoulder beside the box
- On the command (Ready, Set, GO!) the athlete jumps laterally onto the box and then down off the other side. This is done continuously for ninety (90) seconds.
- The recorder shall count one (1) for each time the athlete's feet touch the box. It is imperative that both feet touch the box together, or at the same time.
- The timer starts the watch on the 'GO!' command. The timer will call out the time lapsed for every fifteen (15) seconds during the test. As the timer calls out thirty seconds, the counter shall shout out the total # of touches for the first thirty (30) seconds while recording the total number of touches for the first thirty (30) in the 'Box 30' column, for 60sec on the "Box 60 column and the final # of touches in the 'Box 90' column.

## **AEROBIC FITNESS**

### **20M SHUTTLE RUN (Bleep Test)**

[https://youtu.be/e0U\\_yQITBks](https://youtu.be/e0U_yQITBks)

## FLEXIBILITY

### SIT & REACH

Materials: Sit and Reach Measurement Box.

This test is to assess flexibility for hamstrings, gluteus and lower back.

- Athlete sits with their feet up against the sit and reach box (without shoes on)
- The athlete places one hand on top of the other with the middle fingers aligned
- Reach forward with both hands while keeping their knees completely locked
- Athlete then holds this position for the two (2) seconds (no bounce allowed)
- Measure to the nearest centimeter and record the best of two

### SHOULDER FLEXIBILITY

Materials: Broomstick and Tape Measure

This test is to assess the flexibility of the shoulder girdle.

- The athlete lies prone on the ground holding the broomstick with hands shoulder width apart
- The athlete then lifts the broomstick off the ground as high as possible
- The broomstick is held in position while the assessor measures the height of the broomstick above the ground to the nearest cm.

## TEST RECORDING CARD WITH BENCHMARKS

TEST	MIN TESTING STANDARDS SSA						Your Score
	FIS EUROPA CUP		FIS NORAM CUP		US SELECTIONS		
date	Male	Female	Male	Female	Male	Female	
<b>Strength / Muscular Edurance</b>							
Max push ups 60sec	20	10	25	15	30	20	
Prone/Plank hold (sec)	120	90	135	105	150	120	
Pull ups							
<b>Power / Explosive Strength</b>							
SL hop left (cm)	230	170	235	177	240	185	
SL hop right (cm)	230	170	235	177	240	185	
<b>Aerobic Fitness</b>							
Beep test	9.08	7.09	10.07	8.09	11.09	9.11	
<b>Flexibility</b>							
sit & reach (cm)							
shoulder flexibility (deg)							
<b>Anaerobic Fitness</b>							
90 sec box test							