



# Physical Testing Protocols

February 2024

## **1. Anthropometry**

- a. Standing Height
- b. Standing Reach
- c. Wingspan

## **2. Power & Agility**

- a. Vertical jump – Block
- b. Vertical jump – Spike
- c. T-Test

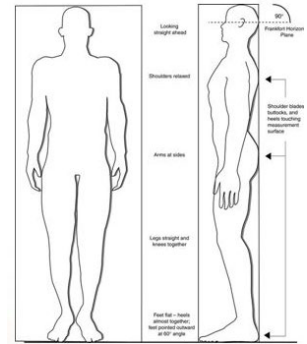
# 1. Anthropometry

## a. **Standing Height:** Height in centimeters (shoes off)

**Equipment:** Stadiometer or Metric Wall Tape, Masking Tape, Set Square

**Protocol:** Undo or adjust hairstyles and remove hair accessories that interfere with measurement.

- Check to ensure athletes heels remain in contact with the floor and the wall.
- The set square is placed on the head, depressing the hair to make firm contact and a mark is made at the level of the lower border of the square on the wall.



*Verbal Cues: "Stand tall, arms hanging by the sides, feet together, the heels and back in contact with the wall. Look straight ahead, stand as tall as possible, and take a deep breath, inhaling and exhaling, while the measurement is taken."*

**Record measurement to the nearest 0.1cm. Make sure to measure the height during inhalation.**

### b. Standing Reach (shoes on)

This test will help in determining the athletes' overall vertical jump.

**Equipment.** Vertec or Metric Wall Tape

**Protocol.** *VERTEC:* The athlete (with shoes on) and feet flat on the ground will displace as many slats as possible on the Vertec, recorded to the nearest ½ inch.



*WALL TAPE:* The athlete (with shoes on) stands with their side to a wall (of their dominant arm) and reach up as far as they can with the hand closer to the wall. Make sure their feet remain flat on the floor and that the athlete is really reaching up as far as possible.

**Record measurement to the nearest 0.5cm or ½ inch.**

### c. Wingspan (Arm Span Length, cm)

Equipment: Metric Wall Tape

Protocol: With heels and back in contact with the wall, each athlete will reach arms out to the sides parallel to the floor. A measuring tape will be used to determine arm span in centimeters from fingertip to fingertip

The assessor will pull on the arm to ensure full length is achieved while the other holds fingers at the zero mark. **Measure to the nearest 0.5 cm.**

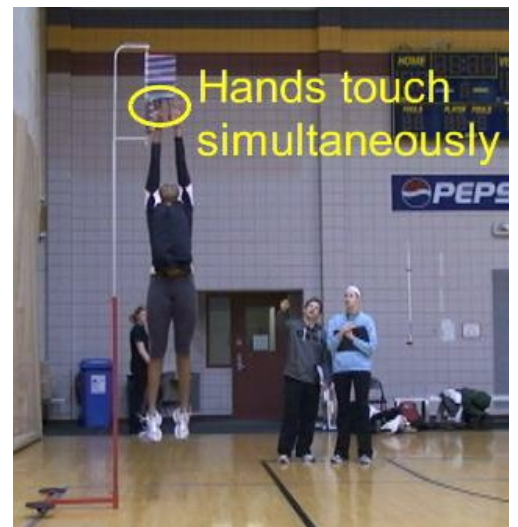
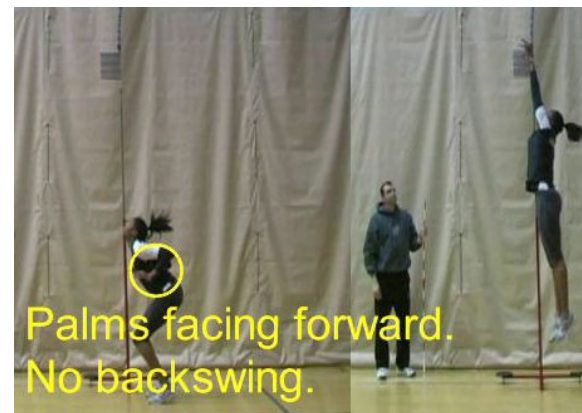
## 2. Power & Agility

### a. Block Touch

Equipment: Vertec

Protocol: Athlete is positioned beneath and slightly behind the Vertec with hands in front of the chest, palms facing out away from the body.

- Without swinging the arms (although the arms may be thrust upwards), the athlete performs a counter-movement jump and reaches up to touch the highest possible point with **both hands**.
- Hands must reach together and touch simultaneously; palms must remain in view and be facing out away from the body throughout the entire movement.
- **3 attempts will be recorded.**
- Highest point is recorded in feet and inches to the **nearest ½ inch** and converted to centimeters (by multiplying total inches by 2.54).



## b. Spike Touch

**Equipment:** Vertec

**Protocol:** Athlete is positioned at their desired approach distance from the Vertec.

- A full spike approach is performed with the athlete touching the highest possible point with one hand as they pass beneath the Vertec in their jump.
- Athlete should be given **feedback** as to where to position their start in order to **reach peak jump height** as they pass under the Vertec.
- **3 attempts will be recorded.**
- Highest point is recorded in feet and inches to the **nearest ½ inch** and converted to centimeters (by multiplying total inches by 2.54).



### c. ProAgility Run Test

The ProAgility Run Test is a measure of agility for athletes. It includes forward and lateral running.

**Equipment:** 3 cones, Measuring tape, Volleyball Attack Lines or masking tape.



- Place cones to indicate the 3 touch points in a straight line, in 3m increments. To be used as a guide. Should not obstruct the running path of athletes.

- On a volleyball court with net removed, attack lines and center line can be used as touch points

- If not using court lines, use masking tape to indicate starting center line, and the 2 edge line, each 3m distant from center line.

#### **Protocol:**

1. Athlete begins straddling center line facing forward towards center cone.
2. Athlete sprints one edge (attack line) and touches the line with finger tips
3. The athlete will then turn and sprint to touch the opposite edge (attack line)
4. The athlete then sprints back to cross the center line to complete the course.
5. The test is then repeated with the athlete starting in the opposite direction.

#### ***Important Notes***

- **Each athlete may have one practice run in each direction (instructed to run at 70% effort). The athlete completes 2 tests in each direction in alternating fashion.** The lowest time for each direction will be used for their score.

- The athlete **only has 1 makeup** trial if they stumble or trip during an attempt, or if there is a failure to touch the marked points on the ground.
- The athlete should turn and sprint in each direction rather than shuffling sideways.
- Encourage the athletes to "run through" the center line when they finish so they do not slow down prematurely.
- Manual timers will be used to make the most efficient use of time with large groups, in smaller group settings, gates can be used.
- Timers should give a "Ready, Go!" cue to the athlete, then time until the athlete crosses completely over the center line.