

## Y-BALANCE TEST

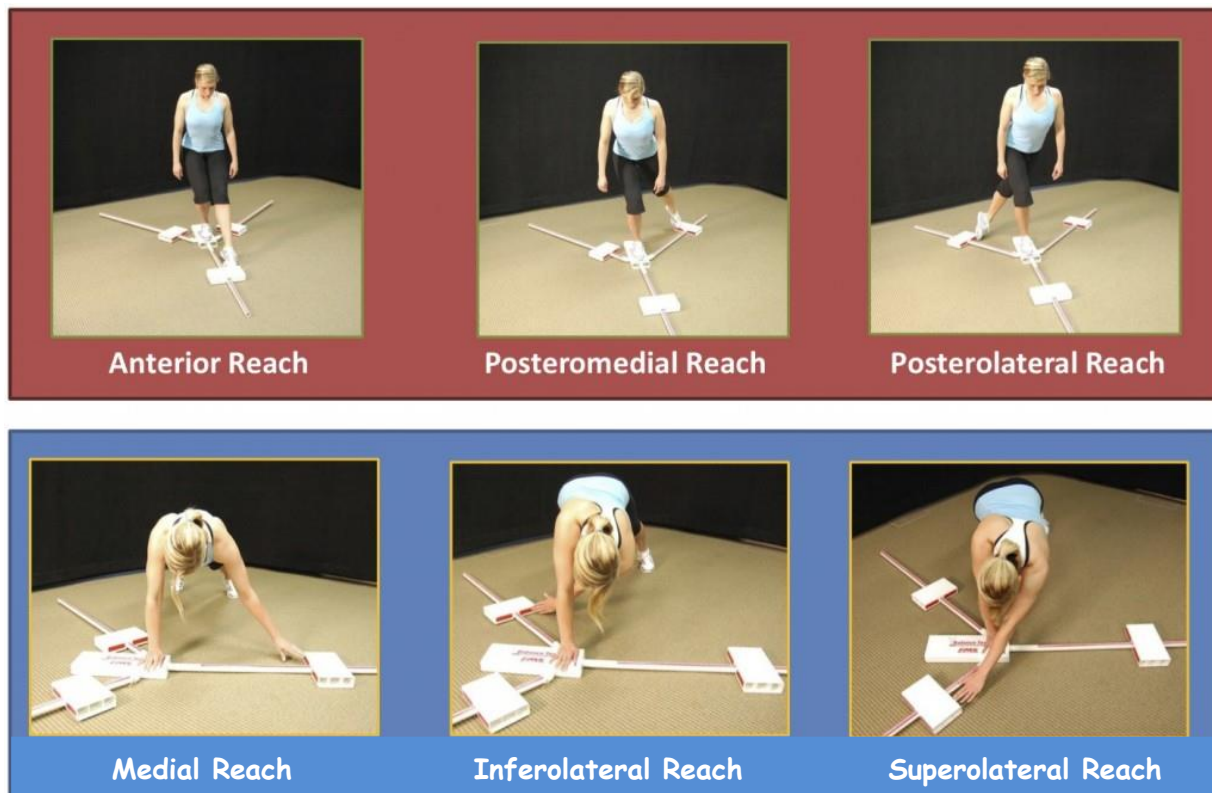


### A. Uses of the Y-balance Test

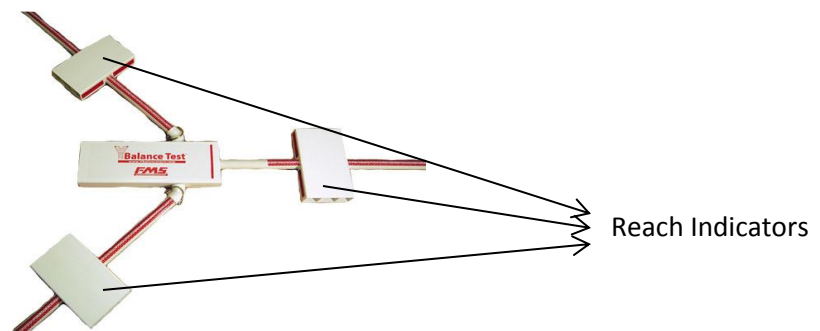
- A functional movement screening device commonly used to predict the risks of injury in athletes
- Simplified version of the Star Excursion Balance Test (SEBT)
- Also used widely for the measurement of pre- and post-rehabilitation performance, improvement after performance enhancement programs, dynamic balance for fitness programs, and return-to-sport-readiness.

### B. Types of Tests

1. Y balance test kit includes 3 poles with distance marking in centimeters.
2. It consists of upper quarter test and lower quarter test as seen in the figure below.
3. For upper quarter test: 1 complete trial refers to the 3 reach directions: i.e. Medial, inferolateral, superolateral.
4. For lower quarter test: 1 complete trial refers to the 3 reach directions: i.e. Anterior, posteromedial and posterolateral.



### C. Instructions



1. Tester should explain the purpose of YBT and demonstrate to the participant.
2. Participants have to perform 1 complete trial continuously without grounding their foot/hand.
3. Familiarization: Allow two practice trials before recording the actual measurements for each limb.
4. Actual testing: Two successful trials for each limb
5. Perform with barefoot and barehand (No socks and gloves are allowed)

#### Upper Quarter Testing

1. Push up position; feet shoulder width apart with the shoes off.
2. Stance hand behind the red line and hands underneath the shoulders
3. Push the reach indicator continuously in 3 directions (Medial, Inferior lateral, Superior lateral)
4. Return to the original position under control without touching the ground during the test.
5. Reach foot must always maintain contact with the red target indicator only.
6. Restrict the placement of foot on top of the reach indicator to gain support.
7. The entire trial of three is repeated if there are any faults in the reaches.
8. Repeat the process with the other stance foot.

#### Lower Quarter Testing

1. Place the longest toe right behind the red line
2. Hands tucked on the hip throughout the entire trial
3. Heels always in contact with the platform
4. Push the reach indicator continuously in three directions (Anterior, Posterior lateral, Posterior medial)
5. Return to the original position under control without touching the ground during the test.
6. Reach foot must always maintain contact with the red target indicator only.
7. Restrict the placement of foot on top of the reach indicator to gain support.
8. The entire trial of three is repeated if there are any faults in the reaches.
9. Repeat the process with the other stance foot.

**D. What constitute a Successful Trial?**

1. Balance of participant maintained throughout entire trial
2. Participant reaching out maximally to push the reach indicators
3. Do not tilt the foot or the hand on the platform to reach further
4. For lower quarter testing:
  - Arms maintain on hip throughout the entire trial
  - Heels maintain contact on the platform throughout the entire trial

**E. Scoring System**

1. Overall lower quarter:  $\frac{(Anterior+Posteromedial+Posterolateral)}{3 \times Limb Length} \times 100$
2. Overall upper quarter:  $\frac{(Medial+Inferolateral+Superolateral)}{3 \times Arm Length} \times 100$
3. Composite score must be above the risk cut point for that person age gender sports or activity level. If not, they are more likely to get injured.
4. Composite score of the left and right symmetry of each of the reach directions must not be more than 4cm difference.