

Isometric Mid-Thigh Pull Test

Patient name: _____ Age: _____ Gender: _____

Date of test: _____

Equipment

- Force plate
- Immovable barbell

Reminders

- Allow the athlete to warm up.
- Allow the athlete to perform 2-3 practice trials at submaximal effort (e.g. 50-75% perceived max) to get accustomed to the testing procedures.
- After the warm-up and practice attempts, athletes will perform 2-3 maximal effort IMTP trials, each lasting 3-5 seconds.
- Provide adequate rest (2-5 minutes) between maximal trials to allow for full recovery.

Procedure

1. Adjust the bar height to the athlete's mid-thigh.
2. The athlete grips the bar with a clean grip or alternating grip.
3. The athlete stands with feet shoulder-width apart on a force plate.
4. Ensure knee angle is between 125-145° and hip angle is 140-150°.
5. The athlete removes slack from the bar without pre-tensing.
6. On command, the athlete pushes their feet into the ground as hard and fast as possible for 3-5 seconds.
7. Repeat steps 6-8 for 2-3 maximal effort trials.
8. The athlete remains still until each trial is saved.

Results

Trial 1

Peak force (PF):

Rate of force development (RFD):

Time to peak force:

Relative force:

Trial 2
Peak force (PF):
Rate of force development (RFD):
Time to peak force:
Relative force:
Trial 3
Peak force (PF):
Rate of force development (RFD):
Time to peak force:
Relative force:
Best trial:
Normative data
For rugby players:
<ul style="list-style-type: none"> • Youth: 1162–2374 N • Academy: 1855–3104 N • Professional: 2254–3851 N
No normative data is available for other populations due to research emphasis on rugby players, despite the fact that the test can be done for collegiate athletes across a range of sports.

Examiner name: _____ **Signature:** _____