THE DECLINE BOARD

The Decline Board is angled at 25 degrees. Since the development of the use of a Decline in eccentric rehabilitation by Tendon expert Jill Cook, much research has shown its benefits to:

2: Improve calf flexibility without impinging the ankle anteriorly. This is crucial to restore ankle dorsiflexion Range of Movement (ROM).
A loss of ankle dorsiflexion ROM leads to an increase in ground reaction forces and thus Achilles and Patella tendon loading. This increases the risk of developing Achilles or Patellar Tendinopathies.

Furthermore, a loss of ankle dorsiflexion ROM is compensated for during gait by subtalar pronation (rearfoot eversion), hip adduction and internal rotation and knee abduction (valgus). This biomechanical fault is implicated in hip, knee and ankle injuries, and is well described as a major cause of Anterior Cruciate ligament tears in the athlete as well as patellofemoral pain syndrome (PFPS) in individuals.

1: Target strengthening of the knee extensors not achievable in a standard squat.
The Decline Board is a valuable tool in rehabilitation and strengthening of the knee extensor mechanism, especially in those suffering from PFPS.
Single or double leg squats with the decline board position the hip in flexion, which offloads the hip extensors and targets eccentric loading on the knee extensors, significantly increasing patellar tendon load.

A study of rehabilitation programs for elite volleyball players with jumper’s knee found that using the Decline Board produced superior strength gains and improvements in tendon pain compared to a standard squat program.

Soleus Stretch  Gastrocnemius stretch  Medial head

Decline squat with weights  1-legged decline squat

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Information for the Practitioner: Decline Board

Calf and Achilles Tendon strengthening

Dimensions and weight

- Size: 50cm x 40 cm. Height: 18cm
- Weight: 4.10kg
- Durable Mild Steel

Suggested Protocols

Research shows that specific and structured and exercise-based rehabilitation programmes for patellar and Achilles tendinopathies are successful. Warning: Exercise prescription is dependent on many factors, including base strength, flexibility and severity of injury. It is important to consider pre-injury functional / sporting level as well as the ultimate goal of the rehabilitation programme.

Typical Rehabilitation protocols:

**Patellar Tendon**

- Double leg, progressing to Single leg
- 1-2 sec down, and 1-2 sec return
- 2-3 sets of 15-20 reps
- 30 second rest b/w sets
- 1 session / day.
- Systematically increase loading by adding weights to overload the tendon
- Systematically increase speed of exercise
- Exercise programmes vary from 3 months, with maintenance for 6-12 months

**Quadriceps hypertrophy**

- Single leg
- 4-5 sets of 6-12 reps
- 3 sec up/down
- 30 sec rest b/w sets
- 3/ week sessions
- Systematically increase loading to build muscle.

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Calf flexibility

- 30-60 sec holds in 3 directions (see diagram). Repeat 3 times
- 2-3 times daily
- 6 days a week to improve flexibility
- 3-4 days a week to maintain flexibility.

References

Jill Cook: The Tendon Rehab Course: Course Notes 2010.


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