

# Knee and Hip Dysfunction - Day 1

## Trunk Stability and Endurance—Plank

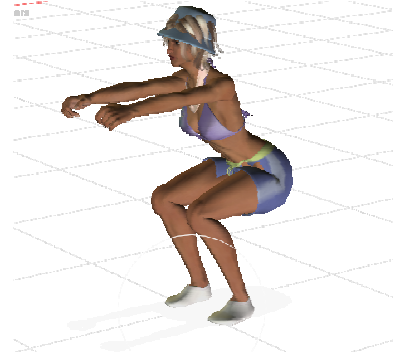


Planks work the entire trunk and hip musculature. The purpose is hold each position for 3-5 seconds and the “roll” to the next position. Your trunk should be a

## Lower Quarter

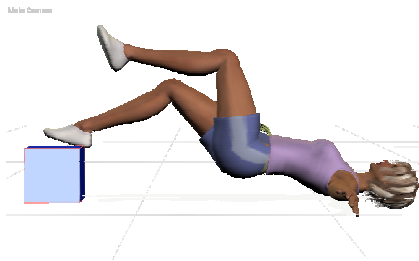
### SQUAT

The squat is fundamental to performance. The squat should be started with a “hip hinge” - in other words, the butt goes backwards and down first. Bending forward at the hip occurs yet the spine maintains its neutral shape. Weight should be felt to go through the heels. Perform 10-15 repetitions



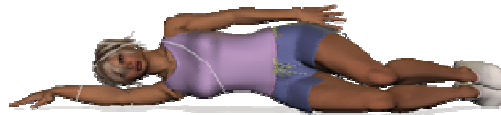
### Straight Leg Bridge

This exercise is similar to the glut bridge but the leg on the ground is placed farther away from the buttocks. Start with two legs on the ground and progress to raising one leg. Hold each position for 5 seconds. Small bounces may be added to chal-



### Hip Abduction or Clam Shell.

Important for working hip abductors and lateral rotators of thigh



## Upper Quarter—Push Ups



Have a partner athlete hold your ankles while you slowly lower your chest to the ground while trying to keep your back and hips straight. At some point put your hands out to avoid breaking your nose. Repeat 10-15 times and rest a min. of two minutes between sets.



### ONE LEG BALANCE

Hold this for 10-20 seconds. To modify drop hip and then lift hip back up (Hip Airplane)

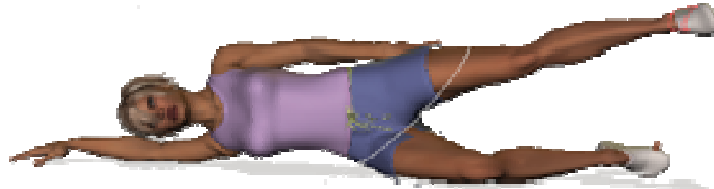


### Advanced Hamstrings: Nordic Style



## SIDE LYING LEG RAISE

Raise leg approximately 12 inches. Hold for 10 seconds and repeat until fatigued



## One Leg Squat and Opposite Leg Raise

This can be done three ways:

1. Raise the outstretched leg upwards and repeat
2. Squat down with the leg that is on the ground
3. Combine the 1 and 2 (Good luck)

Attempt to keep your knee over your 2nd toe. Can also be performed with leg behind. Or you can perform a simple one leg squat



## SQUAT & Grip

The squat is performed the same as previously with one slight change. While squatting down attempt to grip and “spread” the floor. As if you are pushing the ground out to the sides of your feet. Nothing should move but the attempt will increase hip abductor activity. Perform 10-15 repetitions BONUS: HAVE YOUR PARTNER PUSH INWARDS ON BOTH KNEES WHILE YOU SQUAT (ALONE DO THIS WITH A BAND)



## Knee Drive

Many of the same injuries associated with poor hip stability can be helped with improving hip flexor strength. This exercise improves leg recovery during running and helps with the hip drive.

Start this exercise standing and drive your knee to just past parallel. Allow your arm to drive backward as well.

Modifications: 1. can be started in a “front scale position” 2. cables can be attached above the knee.

## Hip Hike and Drop

This exercise increases control of the pelvis. While standing on a box let your foot drop lower by controlling the side to side tilt of your pelvis. Pull your foot back pulling up with your muscles.



## HIP Press against wall

With your knee bent and against the wall push that knee further against the wall. Hold for 5-10 seconds and repeat. Can be done with different angles of hip flexion

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