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**SELF-MANAGEMENT: PATIENT SECTION** 

# Hip muscle training

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Low back and knee pain often are due to poor function of the hip joint. The hip is a large, deep ball and socket joint located near your groin. The outer gluteal muscles — the gluteus medius in particular — control the alignment of your knee and your pelvis during movement such as walking. For instance, **during** 85% of walking you are balancing on one

leg, and the gluteus medius muscle, and one side and lateral trunk muscles (quadratus lumborum) on the opposite **side**, are controlling your posture.

Isolated training of the gluteus medius muscle can be a first step in stabilizing a knee, hip, or back problem.

## The clam shell

- Lie on your side with knees bent;
- Place one hand on your pelvis (Figure 1a);
- Use a light band around your knees for resistance;



Figure 1 Clam shell.

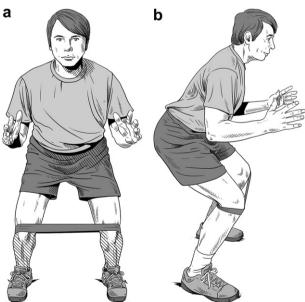


Figure 2 Athletic position.

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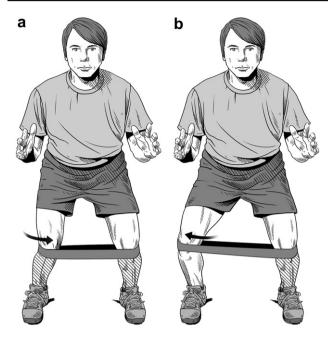


Figure 3 Functional clam shell.

- Raise your knee slowly while keeping your foot down (Figure. 1b);
- Monitor with your hand that your pelvis & spine don't rotate;
- Perform 10-12 repetitions.

Once the gluteus medius muscle is "turned on" then it's activity should be integrated into functional activities.

### Functional clam shell

- Place a band around your knees;
- Stand in an athletic position (Figure 2);
- Allow your knee to slowly move inwards slightly (Figure 3a);
- Then, perform a functional clam shell by turning your knee out against the resistance of the band (Figure 3b);
- Perform 8-10 repetitions.

### The lateral band walk

- Start in an athletic position with a band just above your knees (Figure 4a);
- Balance on one leg (Figure 4b);
- Step to the side and balance again on the same leg (Figure 4c);
- Repeat for 5-6 steps;
- Reverse directions;
- Perform 2-3 repetitions;
- Troubleshooting: be sure to feel the buttocks or outer hip muscles on the leg you are balancing on & pushing off with;
  - If you feel the front of your thigh then "peel back" to the clam shell to wake up the hip/buttock muscles;
  - If you are feeling the lead leg that you are pulling with, then balance for longer on the support/push leg, and possibly perform a few shallow single leg squats on that leg;
  - o To progress this exercise you may add a 2nd band around the ankles.

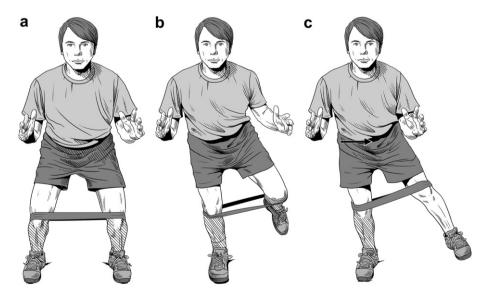


Figure 4 Lateral band walk.