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## SELF-MANAGEMENT: PATIENT SECTION

## Hip muscle training

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Received 29 December 2010; accepted 29 December 2010

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.

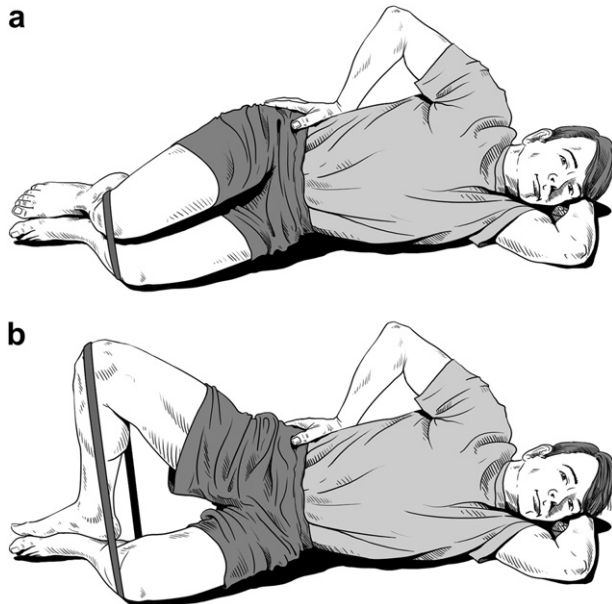


Figure 1 Clam shell.

### 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;

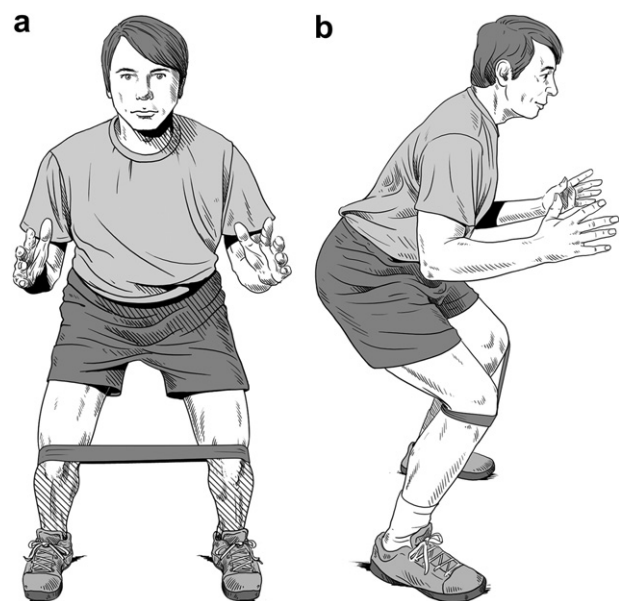


Figure 2 Athletic position.

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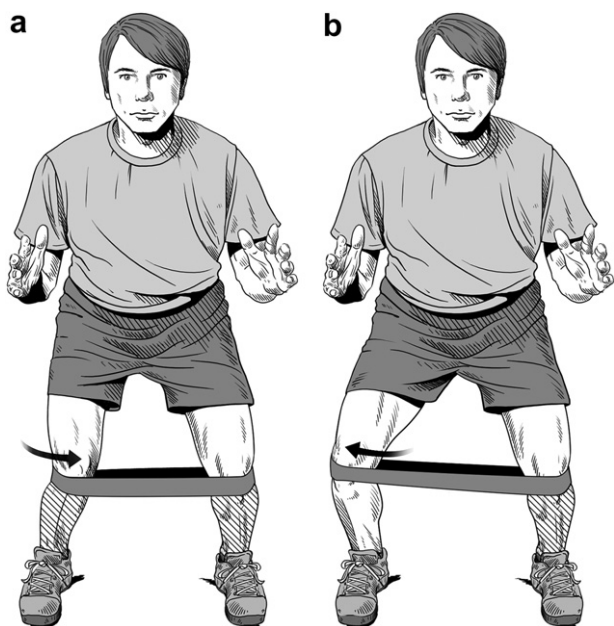


Figure 3 Functional clam shell.

- 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;
  - To progress this exercise you may add a 2nd band around the ankles.

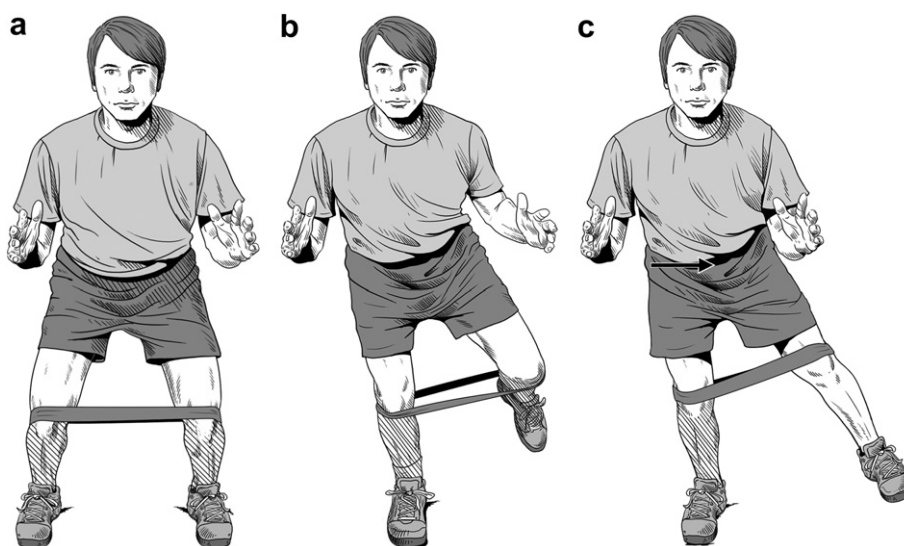


Figure 4 Lateral band walk.