# Hamstring maintenance and preventing injuries



GUEST CORNER LIZE LUBBE

We need our muscles to move our joints, walk, do our daily tasks, exercise, maintain our balance and function without the risk of injury.

## REGULAR EXERCISE IS CRITICAL FOR OUR MUSCLE MAINTENANCE:

Muscles benefit from a regular exercise routine that includes a good balance between strength training and stretches. Weight and resistance strengthening exercises build stability and endurance in our muscles. Stretching increases the flexibility and mobility of our muscles. Flexibility lengthens muscle tissue, compared to strengthening that contracts muscles.

In general, the benefits of a longer, flexible muscles include:

1) preventing muscle strains and tears, tendonitis-inflammation of the tendons, and joint stiffness; and 2) increasing the range of motion of our joints.

Further, stronger muscles help to 1) stabilize and support our joints; 2) reduce pain and stiffness in joints and muscles; and 3) improve our basic functions, such as getting up from a chair or negotiating steps and improve our aerobic fitness and endurance.

## THE FUNCTIONS OF OUR HAMSTRINGS:

So, let's examine our hamstrings in the above context.

Our hamstrings consist of a group of three muscles in the back of our thigh that originate from our sitting bone (Ischium) in our hip/pelvis and insert behind our knees. The three major functions of our hamstrings are to: 1) bend our knees; 2) move our hips/thighs backwards; and 3) rotate our knees/hips from side to side with our knees in a bent position.

## THE CAUSES AND CONSEQUENCES OF TIGHT HAMSTRINGS:

The causes of tight hamstrings include sitting for long periods of time and overuse (for example, using too heavy weights with leg curls).

Tight hamstrings adversely affect our bodies in several ways: 1) causing muscle spasms and cramps that lead to chronic low back pain; 2) providing insufficient support for our knee joints that cause balance problems; 3) by pulling on the back of our knees making it harder to straighten our knees all the way and causing knee-instability which results in knee pain and swelling; and 4) by pulling on the sitting bone and preventing the pelvis from having the normal curvature which affects our natural pelvic and lower back mobility and makes it more difficult to take longer strides when we walk, stiffens our hip joints, and makes it more difficult to bend over to pick up objects from the floor or to play sports.

#### PREVENTING TIGHT HAMSTRINGS:

We can prevent our hamstrings from tightening up through the following:
1) breaking up our long sit sessions by frequently getting up, moving around, and stretching; and 2) when working out, maintaining a good balance between strengthening and stretching exercises.

#### HAMSTRING STRENGTHENING AND STRETCHING EXERCISES:

Before strengthening and stretching a muscle, prepare and warm up the muscle by doing light aerobic activities for about 10-15 min. Never "bounce" a stretch. Always gently lean into a stretch without any pain and hold and release into the stretch slowly for about 30 sec. For strengthening, never overload the muscle and joint with too much weight. Listen to your body by not causing any pain.

## STRENGTHENING EXERCISES:

- 1. Lay on your back, knees bent. Pull your belly button to your spine, stabilize with your core, squeeze your Gluts (buttock muscles) and slowly roll up into a bridging position starting from your buttocks, roll up to your lower back, up to your thoracic area (for women, your bra strap line) and slowly lower down from the top to the bottom. Do 15 repetitions.
- 2. Get on your hands and knees. Tighten your core by pulling your belly button to your spine. Lift your one leg straight up behind you without arching your back. Bend your knee up to your buttocks and straighten the knee out again. Do 15 repetitions. Repeat with other leg.
- 3. Stand up and lean with your elbow onto a countertop or table to stabilize your back. If you have a light weight (3-5lbs), tie them around your ankle and bend your knee pulling your ankle to your buttocks. Do 15 repetitions. Repeat with other leg.

### HAMSTRING STRETCHES:

1. Lay on your back. One knee bent up to your chest holding behind your knee with your hands, other knee bent and foot flat on bed/ground. Straighten the lifted knee up to the ceiling holding with your hands to assist the leg, hold until

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-Lize Lubbe

Physical Therapist at Lize Lubbe Physical Therapy

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you feel a stretch in the back of your thigh. This can also be done by tying a non-flexible strap/dog leach around your foot and hold onto the other end with your hands. Hold the stretch for 30 sec slightly bend and go back into the stretch. Repeat 15 times for both legs.

2. Stand upright with your one leg straight onto a step. Hold on for support and slowly lean forward with your torso to your thigh until you feel a stretch behind your thigh and ease off for 30 sec. Repeat 15 times for both legs.

Stop and contact your healthcare provider or physical therapist if you experience any pain performing the exercises.

Lize Lubbe is the owner of Lize Lubbe Physical Therapy with its main practice located at 892 Route 35 in Cross River and a PT Studio in the premises of Apex Fitness (where her team focus on the rehabilitation of sports-related injuries). Learn more by calling 914-875-9430, emailing contact@lizelubbept.com or visiting www. lizelubbept.com



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892 NY-35, Cross River, NY 10518 (blue office building)

914.875.9430

www.lizelubbept.com

contact@lizelubbept.com