Activities Following a Below Knee Amputation

Department of Rehabilitative Services
415/353-1756

This handout has been prepared as a guideline for activities and exercises for the first one to two months following your amputation. Following these guidelines will help maximize your level of function. The activities and exercises will be supervised by your therapist.

Positioning

The following positions are recommended in order to keep your legs fully mobile. All appropriate positions will be circled.

It is important for you to build up a tolerance to these positions; gradually increasing the amount of time spent in each position. Assume these positions ____ times a day for ____ minutes. Progress up to ____ times a day for ____ minutes.

Lying on Your Back

Whenever you are lying on your back, avoid pillows under your operated leg. Keep your leg flat on the bed with your knee straight. Keep your legs close together.
Lying on Your Stomach
Whenever you are lying on your stomach, keep your hips flat on the surface. Keep your knees straight and legs close together. For a greater stretch, place a towel roll under your thigh.

Sitting
Whenever you are sitting, sit on a firm surface, e.g. a chair. Sit up straight with weight on both hips. Support your operated leg on a firm surface. You may place a towel roll or pillow underneath your lower leg for comfort. Keep your knee straight and avoid crossing your legs.

Exercises
These exercises have been developed by your therapist. All appropriate exercises will be circled. It is important for you to remember to breathe normally while exercising; do not hold your breath. Perform all exercises slowly and smoothly.

No pain, no gain, is a falsehood. Pain is a good indicator that you may have overdone your activities and rest is in order. Incisional pain and muscle discomfort are normal. New sharp pain or pain which persists after exercise is of concern. Stop exercising and discuss this with your therapist.
Bed Exercises

These exercises are performed as shown or as instructed by your therapist. Do these exercises ___ repetitions, ___ times a day. All exercises are to be performed with both legs.

1. Push the back of your knee into the bed. Make the muscle on the front of your thigh tight. Hold and count to 10 aloud; relax.

2. Place a small towel roll under the end of your leg. Press down into the towel until your hips lift off the bed. Hold and count to 10 aloud; relax.

3. Bend your knee toward your chest. Keep your other leg flat on the bed. Straighten your leg out completely.
4. Place a towel roll between your thighs. Move your leg away from the other leg as far as possible. Be sure the knee faces the ceiling at all times. Then move the leg toward the other leg and squeeze the towel roll.

5. Turn leg inward with knee straight, then turn leg outward with knee straight.

6. Tighten your thigh muscle and hold while you lift your leg 12 inches off the bed. Keep your other leg flat on the bed. Do not allow your knee to bend while lifting or lowering.

7. Lie on your side with bottom knee bent. Move your top leg backward. Keep your top knee straight and facing forward. Do not allow your hips to roll forward or backward.
8. Lie on your side with bottom knee bent. Lift top leg. Keep knee straight and pointed forward. Do not let top hip roll backward.

9. Lie on your side. Place top leg behind bottom leg. Lift bottom leg. Do not let hips roll backward.

10. Lie on your stomach. Squeeze your buttocks together. Hold and count to 10 aloud; relax.

11. Lie on your stomach. Squeeze your buttocks to keep your hips flat on the bed while you lift your leg off the bed.
12. Lie on your stomach. Squeeze your buttocks to keep your hips flat on the bed as you bend your knee.

13. Lie on your stomach. Squeeze your buttocks to keep your hips flat on the bed as you bend your knee and lift your thigh off the bed.

Sitting Exercises

These exercises are performed sitting on a firm surface. Sit up straight with weight on both hips. Do these exercises ____ repetitions, ____ times a day. All exercises are to be performed with both legs.

1. Straighten knee completely, then bend knee back as far as comfortable.

2. With knee bent, lift thigh as if marching in place.
3. Support your operated leg on a firm surface. You may place a towel roll underneath your lower leg for comfort. Let your knee relax into a straight position. For a greater stretch, press down on your knee and thigh.

**Standing Exercises**

These exercises are performed in standing. Hold onto a rail or counter for balance. Maintain good posture; keep your trunk erect and hips level. Do these exercises ____ times a day, ____ repetitions.

1. Lift leg forward with knee straight.
2. Lift leg backward with knee straight, avoid twisting.
3. Lift leg out to the side with knee straight and pointed forward.
4. Turn leg outward, then turn leg inward with knee straight.
5. Bend your knee as far as comfortable keeping thigh straight.

6. Slowly bend knees, then stand up.

Progression Of Activities

- Your rehabilitation team (consisting of physical and occupational therapists, assistants, aides and nurses) will be instructing you in the skills you need to return home (e.g. getting in and out of a bed, chair, toilet and shower). You will progress in your endurance and work up to sitting in a chair for all meals.

- Your physical therapist will emphasize your walking in their treatment sessions. When you are safe, your physical therapist will tell you when you may begin walking with family members or independently. Before you are discharged from the hospital, you may be instructed in climbing stairs and on how to get up and down from the floor. If appropriate, you will be assessed for a prosthesis in 6 to 8 weeks after surgery, or when your incision has healed completely.

- Your occupational therapist will focus on independent living skills including but not limited to self-care, home management, and community re-entry. They will also provide strengthening exercises for your upper body and assist you in ordering necessary equipment for the safety of your home.

Stump Wrapping

A “Stump Shrinker” prepares your residual limb for prosthetic fitting by shaping and shrinking it. Once a stump shrinker has been provided, you should keep it on at all times. Avoid any loose material at the end (where swelling can accumulate) by keeping the shrinker pulled up and as high over the knee as possible.
**Desensitization**

When approved by your doctor, to help decrease the sensitivity of your operated leg, begin with gentle touching and patting of your leg, varying the pressure and amount of contact (e.g. fingertip, palm). Progress the amount of pressure and textures (e.g. soft towels or pillowcases) when touching or patting your leg. Other desensitization techniques may be taught to you after your incision has healed.

**Hygiene/Skin Care**

Keep your leg clean and dry. Avoid infection and irritation. Avoid pressure and skin breakdown around the incision and the end of your residual limb. When approved by your doctor:

1. Wash your leg with mild soap and lukewarm water.
2. Rinse with clean water and remove all the soap as it may irritate your skin.
3. Washing should not take longer than 15-20 minutes as, especially in hot water, soaking may soften your skin or cause swelling.
4. Dry skin thoroughly but carefully to avoid irritation.
5. Avoid shaving your operated leg.
6. Apply lotions/creams cautiously. Avoid any open areas such as blisters or abrasions and an unhealed incision site.
7. Check the skin on your leg at least once daily for areas of redness and skin breakdown, especially after removing bandages and/or your prosthesis. Use a mirror if needed to check all areas of your leg, or have someone help you.

**Conclusion**

You can expect changes in your lifestyle following your amputation. This handout of general information has been prepared to help you take an active role in your recovery. If you have any questions, direct them to your doctor or health care provider.

Call your surgeon for any changes in your incision that may point to infection: redness, swelling, oozing drainage, foul odor, temperature over 100, chills or sweats.

If you have any questions, please call the Vascular Center at 415.353.2357.