

# Ankle Weight Exercises To Strengthen Your Legs

## How to Improve Your Strength As You Age

Even very small changes in muscle size can make a big difference in strength, especially in people who already have lost a lot of muscle. An increase in muscle that's not even visible to the eye can be all it takes to improve your ability to do things like get up from a chair or climb stairs.

Your muscles are active even when you are sleeping. Their cells are still doing the routine activities they need to do to stay alive. This work is called metabolism, and it uses up calories. That can help keep your weight in check, even when you are asleep!

### About Strength Exercises

To do most of the following strength exercises, you need to lift or push weights, and gradually you need to increase the amount of weight you use. You can use the hand and ankle weights sold in sporting-goods stores, or you can use things like emptied milk jugs filled with sand or water, or socks filled with beans and tied shut at the ends.

There are many alternatives to the exercises shown here. For example, you can buy a resistance band (it looks like a giant rubber band, and stretching it helps build muscle) at a sporting-goods store to do other types of strength exercises.

### How Muscles Work

What makes your muscles look bigger when you flex them - when you "make a muscle" with your biceps, for example?

Muscle cells contain long strands of protein lying next to each other. When you want your muscles to move, your brain signals your nerves to stimulate them. A chemical reaction in your muscles follows, causing the long strands of protein to slide toward and over each other, shortening the length of your muscle cells. When you "make a muscle" and you see your muscle bunch up and bulge, you are actually watching it shorten as the protein strands slide over each other.

When you do challenging muscle-building exercises on a regular basis, the bundles of protein strands inside your muscle cells grow bigger.

### How Much, How Often

- Do strength exercises for all of your major muscle groups **at least twice a week**. Don't do strength exercises of the same muscle group on any 2 days in a row.
- Depending on your condition, you might need to start out using as little as 1 or 2 pounds of weight, or no weight at all. The tissues that bind the structures of your body together need to adapt to strength exercises.
- **Use a minimum of weight the first week**, then gradually add weight. Starting out with weights that are too heavy can cause injuries.

- Gradually add a challenging amount of weight in order to benefit from strength exercises. If you don't challenge your muscles, you won't benefit from strength exercises. (The "Progressing" section will tell you how.)
- When doing a strength exercise, do 8 to 15 repetitions in a row. Wait a minute, then do another set of **8 to 15 repetitions in a row** of the same exercise. (Tip: While you are waiting, you might want to stretch the muscle you just worked or do a different strength exercise that uses a different set of muscles).
- Take **3 seconds to lift or push a weight** into place; **hold the position for 1 second**, and take **another 3 seconds to lower the weight**. Don't let the weight drop; lowering it slowly is very important.
- It should feel somewhere between hard and very hard (15 to 17 on the Borg scale) for you to lift or push the weight. It should not feel very, very hard. If you can't lift or push a weight 8 times in a row, it's too heavy for you. Reduce the amount of weight. If you can lift a weight more than 15 times in a row, it's too light for you. Increase the amount of weight.
- Stretch after strength exercises, when your muscles are warmed up. If you stretch before strength exercises, be sure to warm up your muscles first (through light walking and arm pumping, for example).

### Safety

- **Don't hold your breath** during strength exercises. Breathe normally. Holding your breath while straining can cause changes in blood pressure. This is especially true for people with cardiovascular disease.
- If you have had a hip repair or replacement, check with your surgeon before doing lower-body exercises.
- If you have had a hip replacement, don't cross your legs, and don't bend your hips farther than a 90-degree angle.
- Avoid jerking or thrusting weights into position. That can cause injuries. Use smooth, steady movements.
- Avoid "locking" the joints in your arms and legs in a tightly straightened position. (A tip on how to straighten your knees: Tighten your thigh muscles. This will lift your kneecaps and protect them.)
- Breathe out as you lift or push, and breathe in as you relax. For example, if you are doing leg lifts, breathe out as you lift your leg, and breathe in as you lower it. This may not feel natural at first, and you probably will have to think about it as you are doing it for awhile.
- Muscle soreness lasting up to a few days and slight fatigue are normal after muscle-building exercises, but exhaustion, sore joints, and unpleasant muscle pulling aren't. The latter symptoms mean you are overdoing it.
- None of the exercises you do should cause pain. The range within which you move your arms and legs should never hurt.

### Progressing

- Gradually increasing the amount of weight you use is crucial for building strength.

- When you are able to lift a weight between 8 to 15 times, you can increase the amount of weight you use at your next session.
- Here is an example of how to progress gradually: Start out with a weight that you can lift only 8 times. Keep using that weight until you become strong enough to lift it 12 to 15 times. Add more weight so that, again, you can lift it only 8 times. Use this weight until you can lift it 12 to 15 times, then add more weight. Keep repeating.

### Strength

- Do strength exercises for all your major muscle groups at least twice a week, but not for the same muscle group on any 2 days in a row.
- Gradually increasing the amount of weight you use is the most important part of strength exercise.
- Start with a low amount of weight (or no weight) and increase it gradually.
- When you are ready to progress, first increase the number of times you do the exercise, then increase the weight at a later session.
- Do an exercise 8 to 15 times; rest a minute and repeat it 8 to 15 more times.
- Take 3 seconds to lift and 3 seconds to lower weights. Never jerk weights into position.
- If you can't lift a weight more than 8 times, it's too heavy; if you can lift it more than 15 times, it's too light.
- Don't hold your breath while straining.
- These exercises may make you sore at first, but they should never cause pain.
- Stretch after strength exercises.

### Knee Extension

Strengthens muscles in front of thigh and shin. Use ankle weights, if you are ready.

1. Sit in chair. Only the balls of your feet and your toes should rest on the floor. Put rolled towel under knees, if needed, to lift your feet. Rest your hands on your thighs or on the sides of the chair.
2. Slowly extend one leg in front of you as straight as possible.
3. Flex foot to point toes toward head.
4. Hold position for 1 to 2 seconds.
5. Slowly lower leg back down. Pause.
6. Repeat with other leg.
7. Alternate legs until you have done 8 to 15 repetitions with each leg.
8. Rest; then do another set of 8 to 15 alternating repetitions.



### Hip Extension

Strengthens buttock and lower-back muscles. Use ankle weights, if you are ready.

1. Stand 12 to 18 inches from a table or chair, feet slightly apart.
2. Bend forward at hips at about 45-degree angle; hold onto a table or chair for balance.
3. Slowly lift one leg straight backwards without bending your knee, pointing your toes, or bending your upper body any farther forward.
4. Hold position for 1 second.
5. Slowly lower leg. Pause.
6. Repeat with other leg.
7. Alternate legs until you have done 8 to 15 repetitions with each leg.
8. Rest; then do another set of 8 to 15 alternating repetitions.



### Side Leg Raise

Strengthens muscles at sides of hips and thighs. Use ankle weights, if you are ready.

1. Stand straight, directly behind table or chair, feet slightly apart.
2. Hold onto a table or chair for balance.
3. Slowly lift one leg 6-12 inches out to side. Keep your back and both legs straight. Don't point your toes outward; keep them facing forward.
4. Hold position for 1 second.
5. Slowly lower leg. Pause.
6. Repeat with other leg.
7. Alternate legs until you have done 8 to 15 repetitions with each leg.
8. Rest; then do another set of 8 to 15 alternating repetitions.



### Knee Flexion

Strengthens muscles in back of thigh. Use ankle weights, if you are ready.

1. Stand straight holding onto a table or chair for balance.
2. Slowly bend knee as far as possible. Don't move your upper leg at all; bend your knee only.
3. Hold position for 1 second.
4. Slowly lower foot all the way back down. Pause.
5. Repeat with other leg.
6. Alternate legs until you have done 8 to 15 repetitions with each leg.
7. Rest; then do another set of 8 to 15 alternating repetitions.



**Hip Flexion**

Strengthens thigh and hip muscles. Use ankle weights, if you are ready.

1. Stand straight to the side or behind a chair or table, holding on for balance.
2. Slowly bend one knee toward chest, without bending waist or hips.
3. Hold position for 1 second.
4. Slowly lower leg all the way down. Pause.
5. Repeat with other leg.
6. Alternate legs until you have done 8 to 15 repetitions with each leg.
7. Rest; then do another set of 8 to 15 alternating repetitions.

**Plantar Flexion**

Strengthens ankle and calf muscles. Use ankle weights, if you are ready.

1. Stand straight, feet flat on floor, holding onto a table or chair for balance.
2. Slowly stand on tiptoe, as high as possible.
3. Hold position for 1 second.
4. Slowly lower heels all the way back down. Pause.
5. Do the exercise 8 to 15 times.
6. Rest; then do another set of 8 to 15 repetitions.

**Variation:**

As you become stronger, do the exercise standing on one leg only, alternating legs for a total of 8 to 15 times on each leg. Rest; then do another set of 8 to 15 alternating repetitions.