

Focused on a 5K:
Strong Strides with Resistance Training

Often when we get focused on one type of activity such as walking or running we forget about the benefits of adding other activities to our routine. Resistance training is associated with reducing the signs and symptoms of conditions such as arthritis, diabetes, and depression. It can also help you to maintain balance and flexibility, and improve bone health. But did you know that it can benefit your walking or running routine, too?

Resistance training for the lower body can help strengthen the muscles and tendons that support those joints being used during walking or running. This includes the areas around the knee and the hip. Keeping these areas strong will help support your body during activity.

Resistance training is also important for the upper body because it will help with good posture and strong form when you pump your arms as you do the activity. You also want your body to be fit all over, not just in one area. Walking and running work the legs very well, but focusing on some resistance training for the upper body will help keep you fit all over. Also do not forget your lower back and stomach muscles. Together these represent the core of your body in every activity. Lack of proper strengthening could result in injury and lower back pain.

There are several different types of exercises you can do to build strength. You might also hear resistance training called strength training or weight lifting. These names might mean that different exercises are involved, but the basic idea is the same. They all mean that the muscle is working against some type of resistance, or force, to become stronger. This resistance might be in the form of an actual weight or from your own body weight and gravity.

Here are things that can be used for resistance training:

- Homemade weights (milk jugs filled with water, canned foods)
- Exercise bands or tubes
- Body weight and gravity (push-ups, chair sits, stomach curls)
- Free weights (dumbbells)
- Weight machines (most often found in a fitness center or gym)
- Group exercise classes or videos (muscle conditioning, Pilates-type classes)

Tips for Safe Resistance Training

- Do resistance training exercises at least twice a week, and skip one day between your workouts.
- Begin with very little, if any, weight to get used to the movement.
- Do each exercise eight to 15 times, rest 30 to 60 seconds, and do it eight to 15 times again.
- To gain benefits, you must gradually increase the weight or resistance of your exercises to challenge your muscles. Once a weight becomes easy to lift, it is time to increase the weight a little or make the exercise harder.

- Make movements slow and controlled; lift for three seconds and lower for three seconds.
- Keep your joints relaxed at all times. Don't lock your knees and elbows.
- Keep breathing throughout the movement. Breathe out during the harder part (moving against gravity) and breathe in during the easier part (moving with gravity). Just breathe normally.

Start out with a simple routine that works the large muscle groups of the body. To begin, perform each exercise eight to 15 times. Some example exercises are included later.

Walking with Hand Weights

If you are currently a regular walker, you've probably heard claims that walking while holding hand weights can make your walk more intense and help you to burn more calories. Some research does show that having your arms at a 90 degree angle and pumping them while holding hand weights does slightly increase the energy you use. However, there are many risks to walking with hand weights. Below are some things to consider:

- Holding the weight in your hand can increase blood pressure. This can be dangerous for those with high blood pressure or heart problems.
- Swinging the weights as you walk can cause problems for those with shoulder or elbow injuries.
- It requires great concentration to swing the weights and keep walking speed up. You might be lowering the intensity of your walk by slowing down.
- A weight of three to five pounds, which is normally what people are able to carry safely while walking, isn't enough to give you the same benefits as a basic strength training session.

The risk of walking with weights is greater than the slight benefit in calorie burn. A better choice would be to focus on increasing your walking speed to increase intensity and do resistance training exercises two to three times per week for your upper body. If you are healthy, injury-free, and choose to carry weights while walking be sure to focus carefully on your walking, and walk safely with good form.

Walking with Ankle Weights

When it comes to ankle weights the advice and research results are a bit more direct. It is not beneficial to wear ankle weights while walking. Here's why:

- The weight can cause you to have improper walking form.
- The strain on your knee can cause damage to the joint. The knees are a fragile area to begin with. It is risky to add unneeded stress to them.
- The key to increasing walking intensity is to increase your speed. Ankle weights can slow you down.

Avoid wearing ankle weights when you walk. Practice good walking form and quicken your pace to increase the intensity of your activity.

Exercise Examples

Here are a few exercises that will help strengthen your body and enhance your walking or running routine. During each exercise, move slowly and smoothly.

Squat



- Stand with your feet shoulder-width apart, toes pointed forward.
- Squat down as if you were going to sit down in a chair.
- Stop just before your bottom would hit the chair and stand back up.
- As you sit back stick your bottom out behind you. This will help make sure that your knees are behind your toes when you are in the squatting position.
- In the standing position keep your knees soft. Avoid locking, or stiffening, them.

Stationary Lunge



- Stand with your right foot out in front of you and your left foot back behind you.
- Lower your body into a lunge position where your back knee almost touches the ground and the top of your front leg is parallel to ground.
- Be sure your front knee is behind the toe.
- Return to the starting position and repeat.
- Repeat exercise on the other side.

Wall Push-up



- Face a wall and place your hands shoulder-width apart.

- Stand about 1 to 2 feet away from the wall. The closer you are the easier the exercise.
- Slowly lean toward the wall and then push away.
- As you get stronger you can increase intensity by doing push-ups on the floor, first a modified push-up on your knees then gradually increase to doing a standard push-up on your toes.

Bent Over Row



- Stand with your feet together.
- Bend forward at the waist.
- Keep your back straight and lower the weight towards the floor.
- Slowly pull the weight towards your body (like you are starting a lawn mower).
- Slowly lower the weight back down towards the floor, repeat.
- Switch sides and repeat exercise.

Bicep Curl



- Stand with feet hips-width apart.
- Hold weights at your side.
- Curl the weight up, keeping your elbows into your side and your back straight.
- Lower to the returning position and repeat.

Triceps Kickback



- Stand with one foot in front of the other, similar to the starting lunge position.

- Slightly lean forward at the waist.
- Hold the weight in one hand and lift the upper arm up so that it is at the same level of your back.
- Your elbow should be at a 90-degree angle.
- Extend the weight back behind you so that the arm is in a straight line.
- Lower, moving only the forearm back to the starting position and repeat.

Curl-up or Partial Sit-up



- Lie on your back.
- Bend your knees and place your feet flat on the floor.
- Place fingertips behind the ears, keeping elbows out wide.
- Curl your body off the floor just until your head and shoulders are lifted.
- Lower slowly and repeat.

Alternating Arm and Leg Raises



- Get into a crawl position, on your hands and knees on the floor.
- Keep your head neutral, with your face, looking down.
- Slowly lift your left arm and right leg off the floor, and hold for five seconds.
- Lower the arm and leg, then lift your right arm and left leg and hold for five seconds.
- Lower and repeat, continuing to alternate the arm and leg being lifted.

Sources:

- Fenton M. **The Complete Guide to Walking for Health, Weight Loss and Fitness**, New York: Lyons Press, 2001.
- Rice, L. Strong Muscles, Healthy Body. *Get Moving Kentucky!* Moving for Health Lesson. Available online at http://www.ca.uky.edu/heel/Moving_Materials/moving_for_health_strong_muscles_healthy_body.pdf.

Lori L. Rice, M.S., C.N.
Program Coordinator
UK Cooperative Extension HEEL Program

Photos taken by: Hollie Anderson
Used with permission from Lori Rice



January 2007

Educational programs of Kentucky Cooperative Extension serve all people regardless of race, color, age, sex, religion, disability, or national origin.