

EXERCISE RX

Exercises for Type 2 Diabetes Patients

Type 2 diabetes is becoming increasingly common in the United States across all ages and ethnicities. This kind of diabetes, which is not dependent on insulin, can be controlled in many people by better attention to exercise and weight management.

Weight control is important for patients with type 2 diabetes, and walking is a safe exercise for most of them.

However, diabetes can predispose patients to aches and pains that can limit their mobility and discourage them from physical activity. In addition to promoting problems such as high blood pressure, type 2 diabetes can affect the nervous

system. Consequently, patients may have problems with walking and develop an ungainly gait.



BY WILLIBALD NAGLER, M.D.

Patients with type 2 diabetes should begin gait exercises as soon as they notice a problem with walking. I recommend that the patient mark the positions of several normal steps on the floor and walk back and forth, stepping on the marks, to improve an awkward, broad-based gait.

An awkward gait can lead to tightness in calves, hamstrings, and hip flexors.

Conversely, preexisting tightness in those muscles can contribute to the development of gait problems. Strong and supple hip flexor muscles and adductor mus-

cles are especially helpful for a smooth, efficient gait.

Below are several exercises that patients with type 2 diabetes should do both before and after walking.

Proper footwear will make patients more comfortable, and I recommend athletic socks, preferably those made with moisture-wicking materials, and sneakers with laces that can be easily adjusted as the feet swell.

It is especially important for patients with type 2 diabetes to have well-fitting shoes with a wide toe box, because their nervous system complications may prevent them from feeling foot pain that might be caused by ill-fitting shoes.

I also recommend that patients with type 2 diabetes inspect their feet every day. The patient is his or her own best preventive medicine doctor; once a foot

infection occurs, it is difficult to cure.

Patients who sweat excessively can put baby powder inside the socks before walking to help absorb excess moisture and prevent sores.

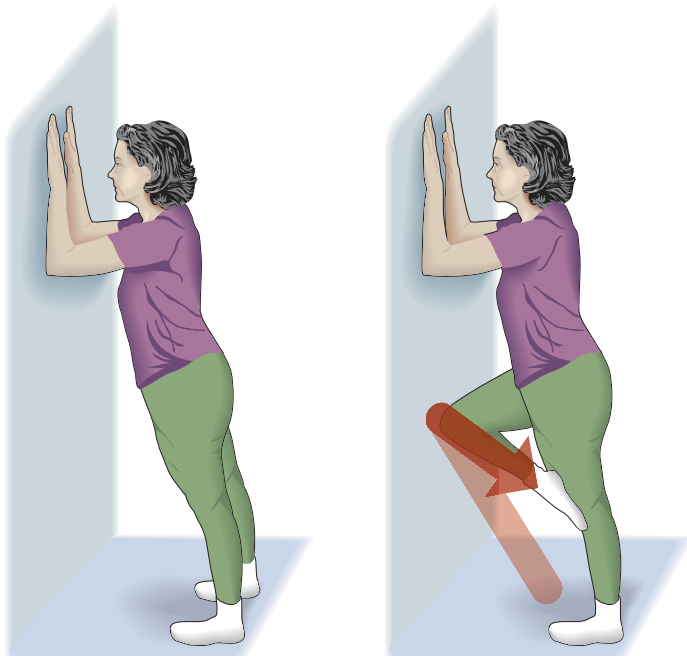
In addition, remind patients with type 2 diabetes that they must not smoke and that they should work hard to control their weight.

Maintaining a healthy weight will not only help to reduce blood sugar levels; it will also reduce stress on the legs and improve the patient's gait. ■

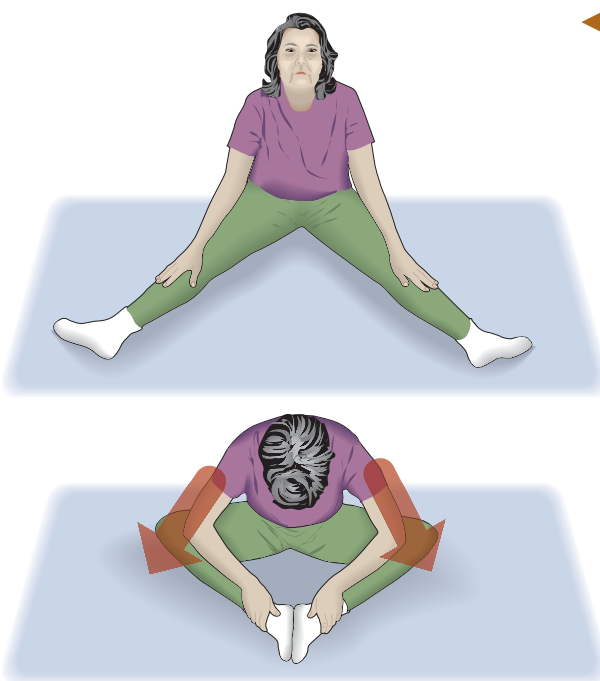
DR. NAGLER is *physiatrist-in-chief, emeritus, and professor of rehabilitation medicine at Weill Medical College of Cornell University, New York.*

Next month: Exercises for patients with osteoarthritis of the hand.

Type 2 Diabetes

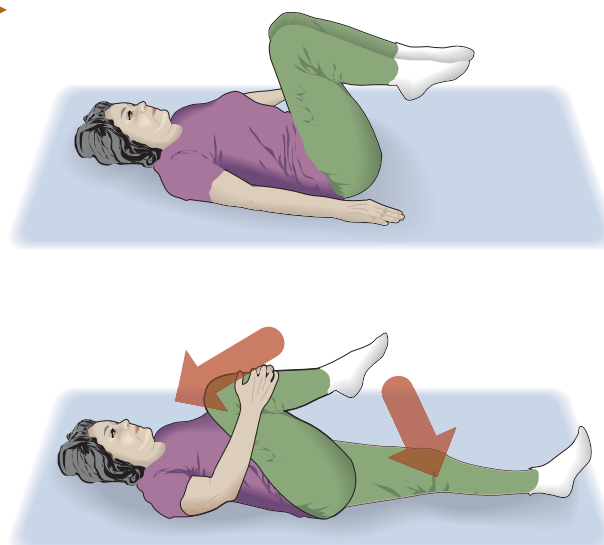


▲ **Calf stretch.** Stand facing a wall about 18 inches away, with your legs and feet together. Lean forward, and place your forearms on the wall, keeping your back flat—not arched or curved—and your heels flat on the floor. This should create a feeling of stretch in the calves. Carefully raise the right knee, placing the right foot over the left knee. You will feel a deeper stretch in the left calf. Start by holding the position for 5 seconds, and work up to 15 seconds. Relax. Repeat with opposite leg. Repeat three to four times.



◀ **Adductor stretch.** This exercise is for the hip adductor muscles—the often-neglected muscles used to bring the legs together. Sit on a carpeted floor with your legs stretched out into a “V.” Bend your knees and draw your feet in toward your body, bringing the soles of the feet together. Place your hands on your ankles and bend forward while you breathe out, so your elbows rest on the inside of your knees. Slowly and gently press down on your knees with your elbows, creating a feeling of stretch in your inner thighs. Hold the position for 15-30 seconds, depending on your comfort level. Remember to breathe normally. Release and repeat two to three times.

▶ **Hip flexor stretch.** Lie flat on your back with both knees bent and feet flat on the floor. Raise both knees over your chest. Clasp your hands around your right knee and bring it as close to your chest as possible, sliding the left leg down to the floor. Keep the left leg as flat as possible, and try to touch the back of your left knee to the floor. Hold the stretch for 5-6 seconds, then return to the starting position and relax. Repeat with the opposite leg. Start with three stretches for each leg, and work up to six.



◀ **Hamstring stretch.** Lie on your back with your arms at your sides, palms down, knees bent, and feet hip-width apart and flat on the floor. Push the small of your back into the floor while bringing your right knee slowly toward your chest while you breathe out. Keep your right foot flexed. Slowly straighten your right leg until the knee is straight. Hold for 15 seconds, and lower the leg down slowly. Relax. Work up to six repetitions. Repeat with the opposite leg.

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