Strong muscles are important to your health and well-being. They allow you to go through the day without becoming overly tired while being able to perform activities of daily living, such as carrying groceries and lifting objects. Low back pain and other muscle and skeletal injuries become less likely. In addition, people who maintain or increase their muscle mass throughout the years have an easier time maintaining a healthy weight. The reasons for you to incorporate strength training into your lifestyle are numerous. This guide will give you the tools to get started.

**WHY STRENGTH TRAINING?**

Engaging in strength-training activities on a regular basis can help you:

- **Develop strong bones.** By stressing your bones, strength training increases bone density and reduces the risk of osteoporosis.

- **Control your weight.** Strength training is crucial to weight control because individuals who have more muscle mass have a higher metabolic rate. Muscle is active tissue that consumes calories while stored fat uses very little energy. Strength training can provide up to a 15% increase in metabolic rate, which is helpful for weight loss and long-term weight control.

- **Reduce your risk of injury.** Building muscle protects your joints from injury. It also helps you maintain flexibility and balance— and remain independent as you age.

- **Boost your stamina.** As you grow stronger, you won’t fatigue as easily.

- **Improve your sense of well-being.** Strength training can boost your self-confidence, improve your body image and reduce the risk of depression.

- **Get a better night’s sleep.** People who commit to a regular strength training program are less likely to have insomnia.

- **Manage chronic conditions.** Strength training can reduce the signs and symptoms of many chronic conditions, including arthritis, back pain, depression, diabetes, obesity and osteoporosis.

- **Improve posture.** By increasing muscle tone and improving muscle balance, you can maintain proper posture more easily.

- **Prevent loss of lean muscle tissue.** After age 20, most adults lose a half pound of muscle per year. A great deal of muscle loss happens when you don’t use your muscles enough as you age, rather than aging itself. The good news is that you can start building and regaining strength at any age.

**DO I NEED TO GO TO A GYM OR BUY EQUIPMENT?**

Not necessarily. Strength training can be done at home, outside, in your office or in the gym. Consider your options:

- **Body weight.** You can do many exercises with little or no equipment by using your own body weight. Try push-ups, pull-ups, abdominal crunches and leg squats (see suggested exercises in this guide to get started).

- **Resistance tubing.** Resistance tubing is inexpensive, lightweight tubing that provides resistance when stretched. You can choose from many types of resistance tubes in nearly any sporting goods store.

- **Free weights.** Barbells and dumbbells are classic strength training tools. You can also try homemade weights, such as plastic soft drink bottles filled with water or sand.

- **Weight machines.** Most fitness centers offer various resistance machines. You can also invest in a multi-exercise weight machine(s) for use at home.
HOW OFTEN DO I NEED TO DO STRENGTH TRAINING?
The American College of Sports Medicine and government guidelines recommend performing strength-training exercises two to three times per week with a day of rest between working the same muscle groups.

WHAT IF I JUST DON’T HAVE TIME TO FIT IN STRENGTH TRAINING?
To benefit from strength training, you don’t need long workout sessions. In fact, a complete and effective workout can be accomplished in as little as 20 to 30 minutes, two to three days a week. If you are really short on time, another option is to perform just a couple of exercises each day (with or without weights), being sure to alternate muscle groups.

WHAT DO I NEED TO DO TO GET STARTED?
• Depending on your fitness level or condition, you might need to start out using as little as 1 or 2 pounds of weight or none at all, until your body adapts to strength training. Use a minimum amount of weight the first week, and then gradually add more. Starting out with weights that are too heavy can cause injuries.

• Stay within your comfort zone; a “no pain, no gain” philosophy can lead to serious injuries. A good routine should tire you, but not cause pain.

• Perform 8-10 separate exercises that train each of the major muscle groups (hips, legs, back, chest, shoulders, arms, and abdomen).

• Choose a resistance or a position that allows you to reach fatigue within one or two sets of approximately 8-12 repetitions.

• Lift the weight to a count of two and lower it to a count of three or four.

• Use proper breathing techniques. Exhale during the effort/contraction phase of the exercise (when you lift the weight) and inhale while returning to the starting position.

• Use safe movements with proper body form and alignment.

• Allow adequate rest between exercises so you can perform the next exercise with proper form. While you wait you can stretch the muscle you just worked or do a different strength exercise that uses a different set of muscles.

HOW CAN I AVOID GETTING INJURED?
• Don’t hold your breath. Holding your breath while straining can cause changes in blood pressure.

• Avoid jerking or thrusting the weights. Perform exercises in a smooth and controlled manner throughout the full range of motion.

• Avoid locking the joints in your arms and legs. Let your elbows and knees stay slightly bent as you reach the end of the movement.

• Listen to your body. Muscle soreness lasting up to a few days and slight fatigue are normal after strength training, but exhaustion or sore joints are not. The latter symptoms mean you are overdoing it.

HOW CAN I KEEP PROGRESSING?
• When you are able to lift a weight 12 times, you can increase the amount of weight gradually.

For example: Start with a weight that you can lift only 8 times. Keep using that weight until you become strong enough to lift it 12 times. Next, add more weight so that you can only lift it 8 times. Use this weight until you can lift it 12 times, for one or two sets, and then add more. Increase weight by only 5-10%. Continue to repeat this progression.

• If you are doing exercises with your own body weight (i.e., pushups) start with the easiest position and then move to a more advanced variation once you can perform at least 12 reps with good form.
Strength Training: Get Stronger, Leaner and Healthier

**HOW CAN I MOVE TO ACTION?**
Check off each item that would be helpful for you and that you will commit to doing in the next one to two weeks to get you started. I will:

- Determine ‘when’ and where I can schedule in time for strength exercises (at the gym, at home, at my desk, after a walk…)
- Make myself and my health a priority
- Find an exercise partner
- Join a fitness center
- Sign up for a strength class
- Book a session with a personal trainer
- Envision myself looking better, feeling stronger, and having more energy
- Incorporate simple body weight exercises throughout the day (chair squats, push-ups)
- Buy dumbbells, a resistance band, and/or a stability ball
- Purchase or rent a strength training DVD to learn proper form
- Think back on any successful changes I’ve made in the past and draw on what worked before
- Other: ______________________________________

**FIVE STEPS FOR SUCCESS**
1. Feel it is important (strength training)
2. Make yourself and your health a priority
3. Know what to do
4. Practice new behaviors
5. Have strategies to overcome barriers and manage slip-ups

**EXAMPLES OF BASIC BODY WEIGHT EXERCISES (that you can do anywhere!)**
When beginning a strength training program, look for professional instruction on how to properly perform the exercises. Complete 1–2 sets of 8–12 repetitions (unless otherwise indicated).

**SAFETY FIRST**
If you haven’t been physically active be sure to start slowly. Don’t do vigorous exercise at first.
If you have any of the following conditions, please talk with your physician before increasing physical activity:

- diabetes
- any disease of the heart or lungs
- high blood pressure
- any history of chest pain
- breathing problems or shortness of breath
- dizziness
- swelling in your ankles
- bone or joint problems
- unusual fatigue
- pregnancy

Stay in touch with your doctor about your exercise program and your health. Do not engage in exercise activities if you have a health condition that is unstable or serious, you have new symptoms, or your doctor recommends against it.
PUSHUPS (strengthens chest, shoulders, triceps and biceps)

Wall pushups (easiest)
A: Stand one to two feet away from a wall, feet shoulder width apart. Place hands on wall, slightly wider than shoulder width apart with arms straight.
B: Keep body straight and bend elbows until your nose almost touches the wall. Push back to starting position to complete one repetition.

Knee pushups (modified)
A: Place palms on floor, slightly wider than shoulder-width apart, with arms straight (not locked). Place knees on floor while forming a straight line from your head to your hips.
B: Bend elbows and lower body until chest almost touches the floor. Push back up to start position.

Pushups (full)
A: Place palms on the floor, slightly wider than shoulder-width apart, and extend arms without locking out elbows. With feet together, straighten legs behind you and rise up on the balls of your feet. Adjust hips so that the body forms one straight line from head to ankles.
B: Keeping your body straight, bend elbows and lower the body until your chest almost touches the floor. Push yourself back up to the starting position (A) to complete one repetition.

LUNGES (strengthens gluteus, quadriceps and hamstrings)
A: Stand with feet approximately six to eight inches apart and toes pointed straight ahead.
B: Step forward (about 2 to 3 feet) with the left leg, keeping the right foot planted. Slowly lower your body until your right knee almost touches the floor. Keep the knee of the left leg aligned directly over the ankle, abdominals contracted, and torso erect. Push up and back to the starting position to complete one repetition. Repeat, leading with the right foot. To increase intensity, hold dumbbells in each hand.
CRUNCH (strengthens abdominals)
A: Lie on your back with knees bent and feet flat on the floor. Fold arms across your chest or place hands behind your head for support only.

B: Curl up, lifting upper body toward ceiling while pressing lower back to floor. Keep chin in a neutral position (do not lift or dig into chest). Bring shoulders off the floor approximately five to 10 inches. If starting with hands behind head, do not pull head forward; support head and neck only. Slowly return to starting position without completely relaxing abdominals between repetitions. Perform 1-2 sets of 20-30 repetitions.

CHAIR STAND (strengthens muscles in abdomen and thighs)
A: Place pillows against back of chair. Sit in middle or toward front of chair, knees bent, feet flat on floor. Lean back on pillows, in half-reclining position, back and shoulders straight.

B: Raise upper body forward until sitting upright, using hands as little as possible.

C: Slowly stand up, using hands as little as possible. Slowly sit back down. The goal is to do a slow and smooth standup motion. As you get stronger, cross your arms over your chest during the movement. Keep back and shoulders straight throughout exercise.

TRICEP DIP (strengthens muscles in back of upper arm)
A: Sit in chair with armrests. Lean slightly forward, back and shoulders straight. Grasp arms of chair. Tuck feet slightly under chair, weight on toes.

B: Slowly push body off of chair using arms, not legs. Slowly lower down to starting position.

Sources: 2008 Physical Activity Guidelines for Americans, U.S. Department of Health and Human Services; Centers for Disease Control and Prevention, 2008; American College of Sports Medicine

This information is intended for educational purposes only and should not be interpreted as medical advice. Please consult your doctor for advice about changes that may affect your health.