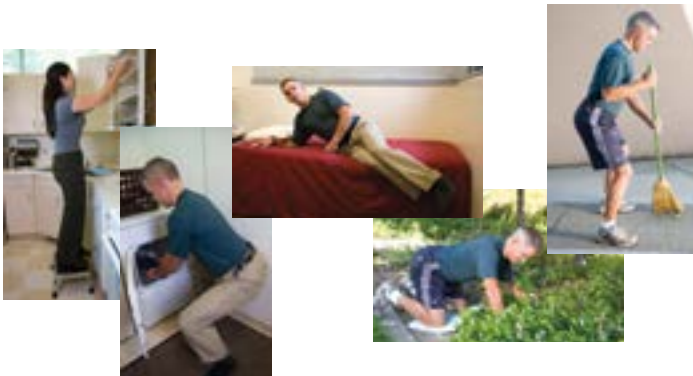




OSTEOPOROSIS
stay active and
exercise
TO STAY STRONG

INTRODUCTION	1
TIPS FOR DAILY ACTIVITIES	1
WEIGHT-BEARING EXERCISES	2
OVERALL STRENGTHENING EXERCISES	2
EXERCISES TO AVOID	2
POSTURAL STRENGTHENING EXERCISES	
• Sitting	3
• Standing	3
• Chair rise	4
CORE STRENGTHENING EXERCISES	
• Abdominal strengthening	4
• Back strengthening	5
• Balance exercise	7
ADDITIONAL RESOURCES	8



Osteoporosis is a condition that causes your bones to weaken or break more easily. The good news is that there are many things you can do to lessen your risk of bone loss and fractures. Two of the most helpful are getting enough calcium and vitamin D. Making physical activity and exercise part of every day also helps prevent osteoporosis.

Regular physical activity can improve your strength and posture. When you exercise, you build muscle and endurance. This helps prevent falls that can cause fractures, and makes it easier for you to do your ordinary, everyday activities.

You need a combination of all these types of activities to prevent bone loss. Here are examples of each of these types of exercise:

- Weight-bearing activities: walking, hiking, and dancing
- Overall strengthening exercises: isometrics, weight lifting, and swimming
- Specific strengthening exercises: the postural and core exercises shown in this booklet
- Balance exercises: yoga or Tai Chi, and the standing balance exercises shown in this booklet

TIPS FOR DAILY ACTIVITIES

Proper posture and safe body mechanics are essential for reducing stress on the spine. As osteoporosis progresses your posture usually gets worse. Poor posture increases compression on the spine, which may lead to spinal fractures. Poor posture may also affect your balance, which can lead to falls. Keep your muscles strong to help prevent poor posture and its consequences.

Use proper posture for all of your daily activities, like the examples shown here at the left. Keep your back straight (do not twist) when doing household chores such as sweeping, vacuuming, and mopping, and when getting in and out of bed. Bend at your hips and knees (not your back) when you brush your teeth, put things in the trunk and take them out, tie your shoes, and when you garden or lift things.

Please see the booklet, *Back Care: Tips for Daily Activities*, for more suggestions on how to move in ways that protect your back. To get a copy of the booklet, visit your doctor's home page at kp.org/mydoctor or visit your local Health Education Center.

WEIGHT-BEARING EXERCISES

Weight-bearing exercises involve moving against gravity when your feet, legs, or arms are supporting or carrying your body's weight.

- Walking is the most convenient weight-bearing exercise.
- Begin with 10 minutes of moderate activity, 3 times a day, 5 days a week. If you can, work up to 60 minutes per day, 5 days a week.
- To add challenge to your walk, vary your speed and the length of your step. Use good posture while doing all weight-bearing exercises.
- Hiking, stair climbing, and dancing are other weight-bearing activities you might enjoy. The most important thing is to make exercise a part of your everyday routine.

OVERALL STRENGTHENING EXERCISES

Regular strength training with weights can make your muscles stronger.

- Use good posture while doing all strength training exercises.
- Swimming is another overall strengthening exercise.

EXERCISES TO AVOID

Avoid all exercises that can place loads on the front of your spine. These include:

- Forward bending and twisting exercises
- Seated exercises with bending and twisting
- Standing forward-bending exercises such as touching your toes
- Sit-ups or curl-ups for stomach muscles

POSTURAL STRENGTHENING EXERCISES

Postural strengthening should be done throughout the day. Maintaining good posture will keep your spine safe and build strength in the spinal muscles.

Here are three postural strengthening exercises.
Hold each exercise for 10 seconds.

Sitting: Do not slouch while sitting. Think of growing taller, lift your breastbone, and squeeze your shoulder blades together. Repeat every 30 minutes throughout the day. When this gets easy, bring your finger tips near your ears, press your elbows back, and squeeze your shoulder blades together.



POOR



GOOD



SHOULDER BLADE
SQUEEZE

Standing: Think of growing taller, lift your breastbone.

Press your shoulders back and squeeze your shoulder blades together. You may do this exercise with or without a stick. Be careful to stand tall and lift your breastbone throughout the exercise. Do not let your chin stick out.



Chair rise: Scoot to the front of the chair. From a seated position, stand up slowly. Keep your back straight and lift your breastbone as you move from sitting to standing. Slowly return to sitting, bending at the hips and knees, still keeping your back straight. You can do this several times during the day to strengthen your back and leg muscles. Begin with 5 and work up to 15 to 20 repetitions.



CORE STRENGTHENING EXERCISES

It is important to strengthen your stomach and back muscles by doing the following exercises. Find a comfortable position to lie down. For each exercise, remember to support your head and upper back with pillows if needed. You may support your legs on pillows or a stool to keep your back in a comfortable position. Hold each exercise for 10 seconds. Begin with 3 repetitions and progress to 8 as you get better at the exercise.

Abdominal strengthening:

Lie in a comfortable position. Gently tighten your stomach muscles without letting your back move. Once you can feel your muscles tighten, hold for 10 seconds. Try counting out loud to avoid holding your breath.



Back strengthening:

Shoulder press: Do this exercise on the floor or standing against a wall. Gently press the back of your shoulders into the floor or wall. Hold for 10 seconds.

FREQUENCY _____



Elbow press: Lie in a comfortable position. Keep both knees bent. Place hands behind your head. If your elbow(s) are not resting on the floor, place a rolled towel under your elbow(s.) Press your elbows into the towel or the floor. Hold for 10 seconds.

FREQUENCY _____



Leg press: Lie with one leg straight and one leg bent. Press the straight leg into the floor and tighten your stomach, buttocks, and leg muscles. Hold for 10 seconds. Alternate sides.

FREQUENCY _____



Single arm press: Lie in a comfortable position with both knees bent. Raise one arm over your head until your arm is resting on the floor. If you cannot reach the floor, place a rolled towel under your arm. Gently press your arm into the floor or rolled towel. Hold for 10 seconds.

FREQUENCY _____



Wall lift-off: Stand close to the wall with your arms overhead. Bend your knees a little, then gently tighten your stomach muscles. Lift your hands off the wall without arching your low back.



START



END

FREQUENCY _____

Bridge: Lie on your back with your knees bent and feet flat on the floor, hands by your sides. Gently tighten your stomach muscles. Lift your hips 3 to 5 inches from the floor without arching your back. Hold the bridge for 3 to 5 seconds, and then slowly lower your hips to the floor.

FREQUENCY _____



Mini wall squat: Stand with back to wall and feet about 12 inches away. Perform a small squat, making sure your knees stay over your ankles. Hold the position for 5 to 10 seconds. Return to standing and repeat.

FREQUENCY _____

Balance exercise:

Practice balancing on one leg. For support, you can stand between 2 chairs, near the kitchen or bathroom counter, or in a doorway. Remember to stand tall. For variety, you can try yoga or Tai Chi, which include a variety of balance exercises.

FREQUENCY _____



SINGLE HAND SUPPORT

ADDITIONAL RESOURCES

- Connect to our website at kp.org to access health and drug encyclopedias, interactive programs, health classes, and much more.
- When your back feels better, go to your doctor or your physical therapist's home page at kp.org/mydoctor, click on the "Healthy Living Resources," select videos and then select the "Spine Care Exercise Videos."
- Contact your Kaiser Permanente Health Education Center or Department for health information, programs, and other resources.
- If you are hit, hurt, or threatened by a partner or spouse, this can seriously affect your health. There is help. Call the National Domestic Violence Hotline at 1-800-799-7233 or connect to ndvh.org.





Consult with your physical therapist or doctor if you experience an increase in your symptoms with recommended exercises, or if you develop new symptoms of numbness, tingling, or a spread of the pain. This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor.

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