

strength



Make it affordable

Exercising at home is just one way to be active. Getting out into the community can also offer opportunities to be active for little cost, as Gwen found:

'I'm 69 and live on my pension income. My kids try to spoil me, but I'd rather do things on my own as much as possible. I checked out a gym where I could use strength-building equipment but it really was quite expensive. I decided to look at the local council website and found a heap of activities that I could do for \$3 a session. I joined a seniors strength class and thoroughly enjoy working out to music with resistance bands and have become great friends with two of the ladies from my class. Even though I felt I may be too old, I also joined a walking group. Despite being the oldest, my endurance has greatly increased and I can now keep up with even the youngest person. I also hear more about what's going on in my neighbourhood. I've always been active, but never as active as social as I am now.'



How to improve your strength

Even very small changes in muscle strength can make a real difference in function, especially in people who have already lost a lot of muscle. An increase in muscle that you can't even see can make it easier to do everyday things like get up from a chair, climb stairs, carry shopping bags, open jars and even play with your grandchildren. Lower-body strength exercises will also improve your balance.

How much, how often

- Try to fit strength exercises for all of your major muscle groups into your weekly physical activity of 30 minutes each day, but don't exercise the same muscle group on any two days in a row. Use the Weekly Physical Activity Plan in your workbook.
- Muscle soreness lasting a few days and slight fatigue are normal after muscle-building exercises, at least at first. After doing these exercises for a few weeks, you will probably not be sore after your workout.

About strength exercises

To do most of the strength exercises in this book, you need to lift or push weights.

Equipment

- You can use weights, resistance bands or common objects from your home. Or, you can use the strength-training equipment at a gym.
- Some exercises in this guide require a chair. Choose a sturdy chair that is stable enough to support your weight when seated or when holding on to during the exercise.

How heavy?

- Start with light weights (or no weights at all) and gradually increase the amount of weight you use. Starting out with weights that are too heavy can cause injuries. Your body needs to get used to strength exercises.
- It should feel somewhere between hard and very hard for you to lift or push the weight. It shouldn't feel very, very hard. If you can't lift or push a weight eight times in a row, it's too heavy for you. Reduce the amount of weight.

Lifting weights

- Take three seconds to lift or push a weight into place, hold the position for one second, and take another three seconds to return to your starting position. Don't let the weight drop; returning it slowly is very important.

- Try to do 10 to 15 repetitions for each exercise. Think of this as a goal. If you can't do that many at first, do as many as you can. You may be able to build up to this goal over time.
- For some exercises, you may want to start alternating arms and work your way up to using both arms at the same time. If it is difficult for you to hold hand weights, try using wrist weights.
- To prevent injury, don't jerk or thrust weights into position. Use smooth, steady movements.

Breathing

- Breathe out as you lift or push, and breathe in as you relax. For example, if you're 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 for a while as you do it.

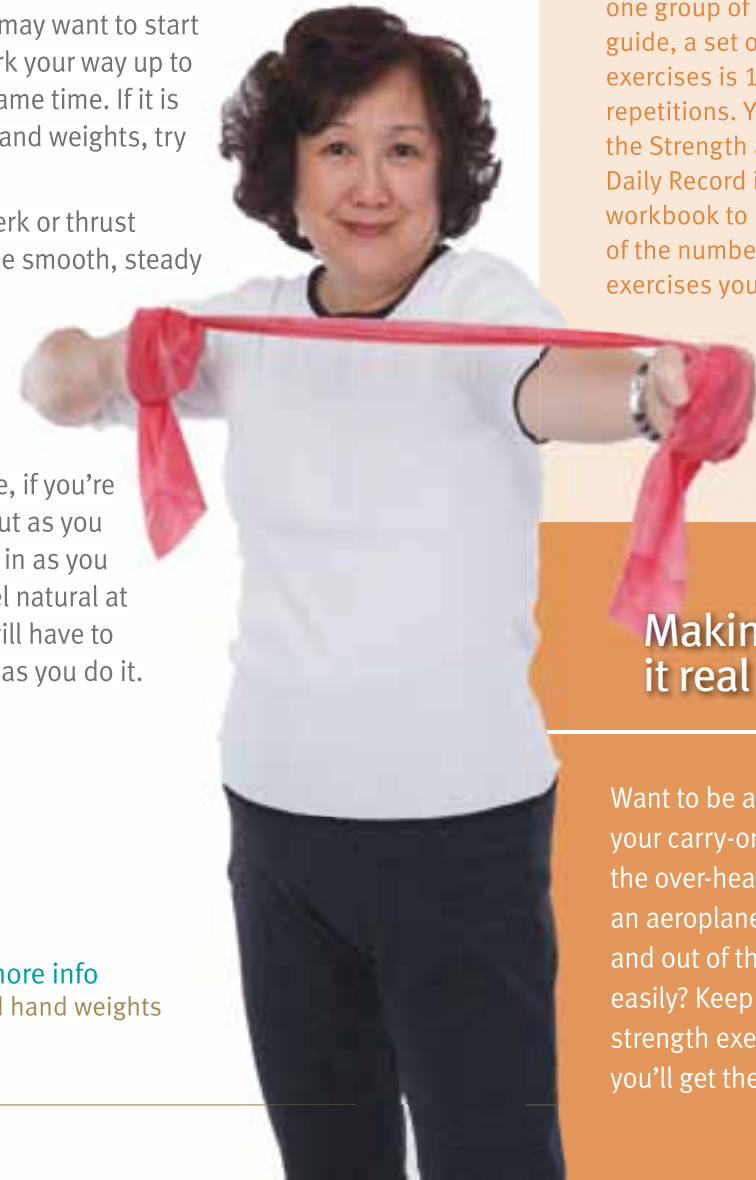


Go here for more info
For household hand weights
See page 35



Quick tip

A repetition, or rep, is one complete movement of an exercise. A set is one group of reps. In this guide, a set of strength exercises is 10 to 15 repetitions. You can use the Strength and Balance Daily Record in your workbook to keep track of the number of strength exercises you do.



Making it real !

Want to be able to lift your carry-on bag into the over-head locker of an aeroplane or get in and out of the car more easily? Keep doing those strength exercises, and you'll get there.

Progressing

Muscle strength is progressive over time. Gradually increase the amount of weight you use to build strength. When you can do two sets of 10 to 15 repetitions easily, increase the amount of weight at your next session.

Here's an example of how to progress gradually: Start out with a weight that you can lift only eight times. Keep using that weight until you become strong enough to lift it easily 10 to 15 times. When you can do two sets of 10 to 15 repetitions easily, add more weight so that, again, you can lift it only eight times. Keep repeating until you reach your goal, and then maintain that level as long as you can.

Working with a resistance band

Wrapping a Resistance Band

Resistance bands are stretchy elastic bands that come in several strengths, from light to heavy. You can use them in some strength exercises instead of weights.



1. Lay the band flat in your hand with the end toward your little finger.



2. Wrap the long end of the band around the back of your hand.



3. Grasp firmly.

As you progress:

1. If you are a beginner, try exercising without the band until you are comfortable, then add the band.
2. Choose a light band if you are just starting to exercise
3. Move on to a stronger band when you can do two sets of 10 to 15 repetitions easily.



Quick tip - Hold on to the band tightly (some bands have handles), or wrap it around your hand or foot to keep it from slipping and causing possible injury. Do the exercises in a slow, controlled manner, and don't let the band snap back. Resistance bands can be purchased from sports stores, department stores and some service providers such as physiotherapists.

Working with weights

You don't have to go out and buy weights for strength exercises. Find something you can hold on to easily. For example, you can make your own weights from unbreakable household items:

1. Fill a plastic milk container with sand or water and tape the opening securely closed
2. Fill a sock with nuts or rice and tie up the open end
3. Use common grocery items, such as bags of rice, vegetable or soup cans, or bottled water.



Hand grip

This simple exercise should help if you have trouble picking things up or holding on to them. It also will help you open things like a jam jar more easily. You can even do this exercise while reading or watching TV.

1. Hold a tennis ball or other small rubber or foam ball in one hand.
2. Slowly squeeze the ball as hard as you can and hold it for three - five seconds.
3. Relax the squeeze slowly.
4. Repeat 10-15 times.
5. Repeat 10-15 times with other hand.
6. Repeat 10-15 times more with each hand.



Wall push-up



These push-ups will strengthen your arms, shoulders and chest.
Try this exercise during a TV commercial break.

1. Face a wall, standing a little farther than arm's length away, feet shoulder-width apart.
2. Lean your body forward and put your palms flat against the wall at shoulder height and shoulder-width apart.
3. Slowly breathe in as you bend your elbows and lower your upper body toward the wall in a slow, controlled motion. Keep your feet flat on the floor and your body straight.
4. Hold the position for one second.
5. Breathe out and slowly push yourself back until your arms are straight. Keep your elbows slightly bent so you don't lock your joints.
6. Repeat 10-15 times.
7. Rest; then repeat 10-15 more times.

As you progress:

Level 2. Push up off lower levels such as a table or chair secured safely against a wall.

Level 3. Do regular push-ups on the floor



This exercise to strengthen upper back, shoulder and neck muscles should make everyday activities such as raking and vacuuming easier.
(See Working with a resistance band on page 34.)



Seated row with resistance band



1. Sit in a sturdy, armless chair with your feet flat on the floor, shoulder-width apart.
2. Place the centre of the resistance band under both feet. Hold each end of the band with your palms facing inward.
3. Relax your shoulders and extend your arms beside your legs. Breathe in slowly.
4. Breathe out slowly and pull both elbows back until your hands are at your hips, pulling your shoulder blades together.
5. Hold position for 1 second, keeping your shoulders down.
6. Breathe in as you slowly return your hands to the starting position.
7. Repeat 10-15 times.
8. Rest; then repeat 10-15 more times.

As you progress:

Level 2. Use a heavier strength band.

Overhead arm raise



This exercise will strengthen your shoulders and arms. It should make activities such as lifting items into overhead cupboards, hanging out the washing and lifting and carrying grandchildren easier.

1. You can do this exercise while sitting in a sturdy, armless chair.
2. Keep your feet flat on the floor, shoulder-width apart.
3. Hold weights beside you at shoulder height, with elbows bent and your palms facing forward. Breathe in slowly.
4. Slowly breathe out as you push upwards with both arms up over your head. Keep your elbows slightly bent so you don't lock your joints.
5. Hold the position for one second.
6. Breathe in as you slowly lower your arms.
7. Repeat 10-15 times.
8. Rest; then repeat 10-15 more times.

As you progress:



Level 2. Do this exercise while standing.

Level 3. Use a heavier weight. You may want to use alternate arms until you can lift the weight comfortably with both arms.



This shoulder exercise can help you put things on a shelf or take them down more easily.

Front arm raise



1. Stand with your feet shoulder-width apart.
2. Hold weights straight down at your sides, with palms facing backward.
3. Breathe out as you raise one arm in front of you to shoulder height, keeping your arm straight.
4. Hold the position for one second.
5. Breathe in as you slowly lower your arm.
6. Repeat for the other arm.
7. Repeat each arm 10-15 times.
8. Rest; then repeat the exercise.

As you progress:



- Level 2.** Work up to lifting both arms at the same time.
- Level 3.** Use a heavier weight and alternate arms until you can lift the new weight comfortably with both arms.

Side arm raise



This exercise will strengthen your shoulders and make lifting easier.

1. You can do this exercise while sitting in a sturdy, armless chair.
2. Keep your feet flat on the floor, shoulder-width apart.
3. Hold hand weights straight down at your sides with your palms facing inward. Breathe in slowly.
4. Slowly breathe out as you raise both arms to the side and up to shoulder height, keeping your arms straight.
5. Hold the position for one second.
6. Breathe in as you slowly lower your arms.
7. Repeat 10-15 times.
8. Rest; then repeat 10-15 more times.

As you progress:

Level 2. Do this exercise while standing.



Level 3. Use a heavier weight and alternate arms until you can lift the new weight comfortably with both arms.



After a few weeks of doing this exercise for your upper arm muscles, lifting those shopping bags onto the bench will be much easier.

Arm curl



1. Stand with your feet shoulder-width apart.
2. Hold weights straight down at your sides with your palms facing forward. Breathe in slowly.
3. Breathe out as you slowly bend your elbows and lift weights toward chest. Keep elbows at your sides and your wrists straight.
4. Hold the position for one second.
5. Breathe in as you slowly lower your arms.
6. Repeat 10-15 times.
7. Rest; then repeat 10-15 more times.

As you progress:



Level 2. Use a heavier weight and alternate arms until you can lift the new weight comfortably with both arms.

Arm curl with resistance band



This variation of the arm curl exercise uses a resistance band instead of weights.
(See Working with a resistance band on page 34.)

1. Sit in a sturdy, armless chair with your feet flat on the floor, shoulder-width apart.
2. Place the centre of the resistance band under both feet. Hold each end of the band with your palms facing inward. Keep elbows at your sides. Breathe in slowly.
3. Keep wrists straight and slowly breathe out as you bend your elbows and bring your hands toward your shoulders.
4. Hold position for one second, keeping your shoulders down.
5. Breathe in as you slowly lower your arms.
6. Repeat 10-15 times.
7. Rest; then repeat 10-15 more times.

As you progress:

Level 2. Use a heavier strength band.



This exercise will strengthen your upper arms. If your shoulders aren't flexible enough to do this exercise, try the Chair Dip on page 44.



Quick tip - Hold If it's difficult for you to hold hand weights, try using wrist weights.



Elbow extension



1. You can do this exercise while sitting in a sturdy, armless chair.
2. Keep your feet flat on the floor, shoulder-width apart.
3. Hold weight in one hand with your palm facing inward. Raise that arm toward ceiling.
4. Support this arm below the elbow with your other hand. Breathe in slowly.
5. Slowly bend your raised arm at the elbow and bring the weight toward your shoulder. Keep your elbow pointing towards the ceiling.
6. Hold position for one second.
7. Breathe out and slowly straighten your arm over your head. Be careful not to lock your elbow or swing your arm.
8. Repeat 10-15 times.
9. Repeat 10-15 times with other arm.
10. Repeat 10-15 more times with each arm.

As you progress:



Level 2. Do this exercise while standing.

Level 3. Use a heavier weight.

Chair dip



This pushing motion will strengthen your arm muscles even if you are not able to lift yourself up off the chair.

1. Sit in a sturdy chair with armrests with your feet flat on the floor, shoulder-width apart.
2. Lean slightly forward; keep your back and shoulders straight.
3. Grasp the arms of the chair with your hands next to you. Breathe in slowly.
4. Breathe out and use your arms to push your body slowly off the chair.
5. Hold position for one second.
6. Breathe in as you slowly lower yourself back down.
7. Repeat 10-15 times.
8. Rest; then repeat 10-15 more times

As you progress:

Level 2. Using a stable bench seat or low table, sit with your hands on either side so your palms are resting on the furniture and your fingers are over the edge, with your feet flat on the wall shoulder-width apart. Keeping your back straight, tightening your



abdomen and leaving your hands in place, move your buttocks slightly forward off the furniture and bend your elbows to dip your buttocks toward the floor. Keep your knees above your ankles and dip only to the point where your upper arms are parallel to the floor. Use your arms to push yourself up to the starting position.

Level 3. Do the progression level 2 exercise but with your legs out straight in front of you.

This exercise will strengthen your wrists, hands and forearms. It also will help ensure good form and prevent injury when you do upper body strength exercises.

Wrist curl



1. Rest your forearm on the arm of a sturdy chair with your wrist over the edge.
2. Hold weight with your palm facing upward.
3. Slowly bend your wrist up and down, without moving your forearm.
4. Repeat 10-15 times.
5. Repeat with other hand 10-15 times.
6. Repeat 10-15 more times with each hand.

As you progress:

Level 2. Use a heavier weight.

Back leg raise



This exercise strengthens your buttocks and lower back.

1. Stand behind a sturdy chair, holding on for balance. Breathe in slowly.
2. Breathe out and slowly lift one leg straight back without bending your knee or pointing your toes. Try not to lean forward or arch your back. The leg you are standing on should be slightly bent.
3. Hold position for one second.
4. Breathe in as you slowly lower your leg.
5. Repeat 10-15 times.
6. Repeat 10-15 times with other leg.
7. Repeat 10-15 more times with each leg.

As you progress:



Level 2. Try improving your balance by gradually decreasing your hand support and eventually doing the exercise with your eyes closed.

Level 3. You may want to add ankle weights.



This exercise strengthens hips, thighs and buttocks.



Side leg raise



1. Stand behind a sturdy chair with feet slightly apart, holding on for balance. Breathe in slowly.
2. Breathe out and slowly lift one leg out to the side. Keep your back straight and your toes facing forward. The leg you are standing on should be slightly bent.
3. Hold position for one second.
4. Breathe in as you slowly lower your leg.
5. Repeat 10-15 times.
6. Repeat 10-15 times with other leg.
7. Repeat 10-15 more times with each leg.

As you progress:



Level 2. Try improving your balance by gradually decreasing your hand support and eventually doing the exercise with your eyes closed.

Level 3. You may want to add ankle weights.

Chair stand



This exercise, which strengthens your abdomen and thighs, will make it easier to get in and out of the car.

1. Sit toward the front of a sturdy, armless chair with knees bent and feet flat on floor, shoulder-width apart. Breathe in.
 2. Breathe out and extend your arms so they are parallel to the floor as you slowly stand up, keeping your heels on the ground.
 3. Breathe in as you slowly sit down.
 4. Repeat 10-15 times.
 5. Rest; then repeat 10-15 more times.
- (If you find this difficult, place a piece of foam or similar on the chair to raise the sitting height.)

As you progress:

- Level 2.** Place a stable step at the front of your chair. Start from a standing position on the step with feet shoulder-width apart, feet slightly turned out and arms out in front. Keeping your back straight and tightening your abdomen, bend your knees and slowly lower yourself into the chair, keeping your feet flat on the floor and your knees in line with your foot. Then slowly return to a standing position.
- Level 3.** You may like to add hand weights or increase the distance from standing to sitting by removing the chair altogether and doing a squat by lowering your buttocks toward the floor and standing up again.



This exercise will make walking and climbing stairs easier.

Knee curl



1. Stand behind a sturdy chair, holding on for balance. Breathe in slowly.
2. Breathe out as you slowly bring your heel up toward your buttocks as far as possible. Bend only from your knee, keep your hips still, your knees close together and don't point your toe. The leg you are standing on should be slightly bent.
3. Hold position for one second.
4. Breathe in as you slowly lower your foot to the floor.
5. Repeat 10-15 times.
6. Repeat 10-15 times with other leg.
7. Repeat 10-15 more times with each leg.

As you progress:



Level 2. Try improving your balance by gradually decreasing your hand support and eventually doing the exercise with your eyes closed.

Level 3. You may want to add ankle weights.