



Exercise for People Living with Cancer

A guide for people with cancer,
their families and friends

Practical
and support
information

For information & support, call

13 11 20



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Exercise for People Living with Cancer is reviewed approximately every three years. Check the publication date above to ensure this copy is up to date.

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Note to reader

Always consult your doctor about matters that affect your health. This booklet is intended as a general introduction to the topic and should not be seen as a substitute for medical, legal or financial advice. You should obtain independent advice relevant to your specific situation from appropriate professionals, and you may wish to discuss issues raised in this book with them.

All care is taken to ensure that the information in this booklet is accurate at the time of publication. Please note that information on cancer, including the diagnosis, treatment and prevention of cancer, is constantly being updated and revised by medical professionals and the research community. Cancer Council Australia and its members exclude all liability for any injury, loss or damage incurred by use of or reliance on the information provided in this booklet.

Cancer Council

Cancer Council is Australia's peak non-government cancer control organisation. Through the eight state and territory Cancer Councils, we provide a broad range of programs and services to help improve the quality of life of people living with cancer, their families and friends. Cancer Councils also invest heavily in research and prevention. To make a donation and help us beat cancer, visit cancer.org.au or call your local Cancer Council.



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Introduction

This booklet has been prepared to help you understand the importance of exercise, and to provide information about the benefits of exercise during and after cancer treatment. We have included tips on exercise preparation, plus some examples of exercise techniques that you can do at home. There is also information about support services that may assist you.

We cannot give advice about the best exercise program for you. You will need to discuss this with your doctors and exercise professionals. However, we hope this information helps you think about questions to ask them.

This booklet does not need to be read from cover to cover – just read the parts that are useful to you. Some terms that may be unfamiliar are explained in the glossary. You may also like to pass this booklet to your family and friends for their information.

How this booklet was developed

This information was developed with help from a range of exercise and health professionals and people affected by cancer. It is based on guidelines for exercise programs for people living with cancer.^{1,2}

If you or your family have any questions, call Cancer Council **13 11 20**. We can send you more information and connect you with support services in your area. Turn to the last page of this book for more details.



**Cancer
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13 11 20**

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Why exercise?

Exercise has many general benefits for your physical and mental wellbeing. It can:

- strengthen muscles and bones and improve circulation
- help you maintain or achieve a healthy weight
- improve your energy levels
- improve your mobility and balance
- improve appearance and self-esteem
- help you cope with stress, anxiety and depression
- provide new opportunities to meet people and socialise
- reduce the risk of, or help manage, high blood pressure, heart disease, stroke, diabetes, osteoporosis and some cancers.

*Australia's Physical Activity and Sedentary Behaviour Guidelines for Adults*³ urge everyone to move more and sit less. Physical activity is any activity that gets your body moving and speeds up your breathing and heartbeat. It includes not only structured exercise sessions, but also everyday activities such as housework.

Adults should usually aim to be active for at least 30 minutes on most, preferably all, days of the week. The guidelines recommend a weekly total of 2½ to 5 hours of moderate-intensity exercise, along with strength-training (resistance) activities twice a week. It is also important to break up long periods of sitting as often as you can.

“ I was not as active before cancer as I am now. I walk three or four times a week. It gives me extra energy and helps clear my mind. If I don't do any walking, I really notice the difference in my energy levels and my mood. ” Rima



Safety tips for exercising with cancer

- If you are going out to exercise, let someone know when you will be back or take a phone with you in case you become fatigued or unwell.
- Start any new exercise program slowly, and increase your activity gradually.
- You may get sore muscles when you start a new form of exercise, but the soreness should go away in a few days. If it doesn't, tell your doctor.
- Some symptoms are warning signs. If you experience any of the following symptoms while exercising, stop the activity immediately and call 000 for urgent medical assistance: pain or pressure in your chest or pain down your arms; severe shortness of breath; dizziness or fainting; irregular or unusually rapid heartbeat; nausea and/or vomiting; extreme weakness or extreme fatigue.

Should people with cancer exercise?

Recent research suggests that exercise benefits most people both during and after cancer treatment. It can help manage some of the common side effects of treatment (see pages 8–9), speed up your return to your usual activities, and improve your quality of life. The evidence also shows there is little risk of exercise causing harm if care is taken and professional exercise advice is followed closely. For some cancers, exercise may even improve treatment outcomes.

People with cancer should be as physically active as their abilities and condition allow. Some days may be harder than others, but even a few minutes of light exercise is better than no exercise at all. You

may want to work out two different exercise plans – one for your good days, and another for those days when you are experiencing strong side effects.

Talk to your doctor before starting an exercise program, particularly if you have bone cancer or if you have any persistent treatment-related side effects, such as lymphoedema (swelling caused by a build-up of lymph fluid), shortness of breath, nerve damage, skin irritation, fatigue or pain. Your doctor can advise whether you need a modified exercise program.

See pages 8–9 for some general information about the impact of exercise on common side effects of cancer treatment. If you have severe anaemia, high fever or severe weight loss, your doctor may recommend you delay starting an exercise program until your condition improves.

To help your doctors and exercise professionals fine-tune your exercise program, you could try keeping a diary to record your physical activity, other activities (such as work or socialising), and side effects. Over time, this will help them recommend the best exercise program for you. See page 13 for ways you can track your physical activity.



If you are already very active at the time of the cancer diagnosis, talk to your doctor and an exercise professional (see page 11) about how you can retain your fitness during and after treatment.

Question checklist

You may find this checklist helpful when thinking about the questions you want to ask your doctors and exercise professionals about exercise during or after cancer treatment. If they give you answers that you don't understand, ask for clarification.

Questions for your doctors

- Can I exercise while I'm having this treatment?
- Are there any types of exercise I should avoid?
- I have a port/PICC line and/or chemo pump. What precautions should I take?
- I haven't exercised much before. Do I need to have any general health checks first?
- Can you recommend an exercise professional who has experience helping people with cancer?

Questions for your exercise professionals

- What are your qualifications? Are you accredited? By which organisation?
- Have you completed any training focused on exercise for people with cancer?
- Can you talk to my medical team about my exercise program?
- What will you consider when preparing an exercise program for someone with my medical history?
- How will I know that I am doing the exercises correctly?
- What should I do if I feel pain when exercising?
- Can I start slowly?
- What if I feel too unwell to exercise?
- How long might it be before I start to see some benefits from this exercise program?
- How many appointments are we likely to need?

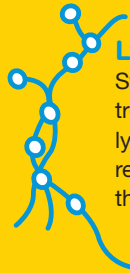
Treatment side effects and exercise

Cancer treatment causes a range of physical effects that are different for different people. Exercise has been shown to help people cope with many of the common side effects, including fatigue, feeling sick (nausea), loss of appetite, anaemia, depression and anxiety, weight changes and loss of muscle tone. Some side effects need extra care if you are starting an exercise program.



Fatigue

Many people experience fatigue (feeling tired even when rested) during and after cancer treatment. Carefully monitoring your condition and making adjustments to the exercise intensity and duration can help manage fatigue. It is important to keep doing some low-intensity exercise during times of excessive fatigue (unless you have severe anaemia, see opposite page). You may find that shorter, more frequent sessions are more manageable. By stopping all activity you risk losing fitness and strength, which can make the fatigue worse.



Lymphoedema

Starting an exercise program early in treatment may lower the risk of developing lymphoedema. For those with lymphoedema, regular exercise can reduce the severity of the condition and its symptoms.



Compromised immunity

Some cancers and treatments stop the immune system from working properly for a time. When your white blood cell count is low (neutropenia), there is an increased risk of infection, so it is important to limit physical contact with other people and clean any shared equipment before use. When your immunity is severely compromised, gyms, swimming pools and training venues should be avoided.



Anaemia

Low red blood cell and/or haemoglobin count is another common side effect of cancer treatment. Symptoms of anaemia include unexplained tiredness and fatigue. Combined with good nutrition, exercise has been shown to improve anaemia. For mild or moderate anaemia, try a low-intensity exercise program, with gradual increases in intensity and/or duration. However, in cases of severe anaemia (when a blood test shows a haemoglobin level of less than 80 g/L), consult your doctor about whether you should avoid exercise until it improves.



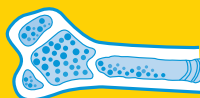
Skin irritation

Areas of skin affected by radiotherapy can be extremely sensitive and often uncomfortable. Choose activities and clothing to minimise fabric rubbing affected areas. Chlorine can be irritating, so avoid pool-based exercise if your skin has a rash or is reddened after radiotherapy.



Poor balance and coordination

If the cancer or its treatment has affected your coordination or causes dizziness, it is safer to avoid exercise that relies on balance and coordination, such as cycling outdoors or using a treadmill. It is also best not to lift free weights without a training partner.



Bone weakness or pain

Some hormone treatments for breast and prostate cancer can increase the risk of fractures, as can osteoporosis (bone thinning) or primary or secondary bone cancer. In these cases, it is best to avoid contact sports and high-impact activities such as running and jumping.



Getting started

After a cancer diagnosis, some people decide to make big changes to their lifestyle. Others take a more gradual approach. You will find the way forward that is right for you.

Before taking part in any exercise program, either during or soon after your treatment, it is important to talk with your oncologist or general practitioner (GP) about any precautions you should take.

If it has been a while since you have been active or your fitness level is low, start slowly and build up gradually. For example, you might start by doing 5–10 minutes of walking three days per week, and add a bit more every week until you have worked your way up to 30 minutes of walking five days per week.

Exercise equipment

You don't need expensive equipment or special clothing to exercise, but appropriate shoes are vital. A podiatrist or reputable shoe shop can recommend shoes that will help you avoid injury. Wear loose, comfortable clothes, such as shorts and a T-shirt, when you are exercising. Other equipment, such as heart rate monitors and home-gym systems, can be useful but are not necessary.



If you are exercising outside, remember to be SunSmart: slip on sun-protective clothing, slop on SPF 30+ sunscreen, slap on a broad-brimmed hat, seek shade, and slide on some sunglasses. By law, cyclists also need to wear an approved safety helmet.

Exercise professionals

Starting an exercise program can feel overwhelming. You may have lots of questions. It is important to realise that personal trainers and exercise scientists are trained to work with people who do not have any major health issues. People affected by cancer should see an exercise physiologist or a physiotherapist.

Exercise physiologists – Also called Accredited Exercise Physiologists (AEPs), these allied health professionals have completed at least a four-year university degree. Because they concentrate on using exercise as medicine to help with injury and chronic disease management, they are the most appropriate exercise professionals to advise people affected by cancer.

Physiotherapists – These are allied health professionals who have completed at least a four-year university degree. They often concentrate on preventing and treating injuries using a variety of treatment methods, including exercise, massage, and joint manipulation. They can also advise people affected by cancer.

Medicare or your private health fund may provide limited cover for visits to an exercise physiologist or a physiotherapist. Ask your GP for a referral to an exercise professional, or use the Exercise & Sports Science Australia website at essa.org.au.

Your exercise physiologist can work with you and your doctor to develop an exercise program tailored for you. Many structured exercise programs offered at venues such as gyms will ask you for a medical clearance before starting.

Choosing an exercise program

Physical activity need not be costly or inconvenient. The exercise program that is right for you will depend on your current fitness level, what you want to do, and what your doctor says is safe for you. If you enjoy an activity, you are more likely to stick with it. To stay motivated, you could ask a friend or family member to join you.

Exercise at home and outdoors

Home-based exercise and outdoor exercise are excellent ways to include physical activity in your daily routine. You can try aerobic activities such as walking, cycling or swimming, along with some strength-training exercises (see pages 20–34). If you haven't exercised much before or are unsure about what you can safely do, talk to your GP about a referral to an exercise professional.

Attend a group exercise program

Many gyms and fitness centres run group exercise programs. When joining, let your gym know that you have cancer, and ask if they have someone who can help to ensure that the exercise program is right for you.

An exercise professional should conduct an initial consultation and functional assessment so that the group exercise program is tailored for your abilities and condition. Ideally, this person will be an exercise physiologist accredited with Exercise & Sports Science Australia. You can search for an accredited exercise physiologist (AEP) by name, location or specialty at essa.org.au. To find an appropriate group exercise program, ask your GP for a referral or call Cancer Council 13 11 20.

Mix it up

You might choose a mix of exercising at home or outdoors and attending a group program. The structure and safety of a supervised program can be a great place to start, while your own activities can keep things interesting. Another option is to join a sporting club. Belonging to a group provides a social outlet as well as physical benefits, and often helps with motivation.

Keep track

Some people are motivated by recording their physical activity and tracking their progress. There are a number of ways to do this:

Exercise diary – Record every day's physical activity in a paper diary or calendar. List the activity type, intensity and duration.

Online – Websites such as myfitnesspal.com allow you to record your food intake and exercise sessions for free.

Apps – Free smartphone apps such as Runkeeper or MyFitnessPal track your movement if you keep your phone on you while you are exercising, or you can record your activity later.

Gadgets – Also called wearables, devices such as those from Fitbit and Jawbone are worn like a watch. They can track your activity and transfer the data to your smartphone or computer.

Telephone support program – Your local Cancer Council may provide information on telephone health coaching for people who have completed cancer treatment – call 13 11 20 to find out more.

What should I eat?

Eating well means giving your body the food it needs to keep working properly. Cancer and its treatment place extra demands on your body, so eating well is more important than ever.

There is no special eating plan that can cure cancer and, in most cases, there are no special foods or food groups to eat or avoid if you have cancer. For most people living with

cancer, the best approach is to eat a wide variety of foods from each of the food groups every day. It is also important to stay hydrated during and after exercise. Have a water bottle nearby when you are exercising and take regular small sips.

Cancer Council has a *Nutrition and Cancer* booklet. Call **13 11 20** to order a free copy, or download it from your local Cancer Council website.

Exercise sessions

To help avoid injury, it is important to begin each exercise session with a warm-up and finish with a cool-down.

Warm-up

The aim of warm-up activities is to make your muscles warm and ready to work, and to raise your heart rate slightly. This prepares your body for your exercise session.

A warm-up should include 5–10 minutes of low-intensity aerobic work mixed with some light stretching. Walking outside or using indoor equipment are good warm-up activities. Before strength training, it is a good idea to use light weights in your warm-up.

Training

Training is the part of an exercise program when the work is done. Different types of training have specific effects on your body. A well-rounded weekly exercise program should include a variety of activities from the three types of exercise:

- **aerobic exercises** – these raise your heart rate during the activity and improve heart and lung fitness, see pages 18–19
- **strength-training exercises** – also known as resistance or weight-training exercises, these use weights (including your own body weight) or a form of resistance to strengthen your muscles, see pages 20–34
- **flexibility exercises** – these use stretching to lengthen muscles and tendons, see pages 35–42.

It is also important to exercise your pelvic floor muscles several times a day, particularly if you have bladder or bowel issues, such as leaking or incontinence, see pages 43–45.

Cool-down

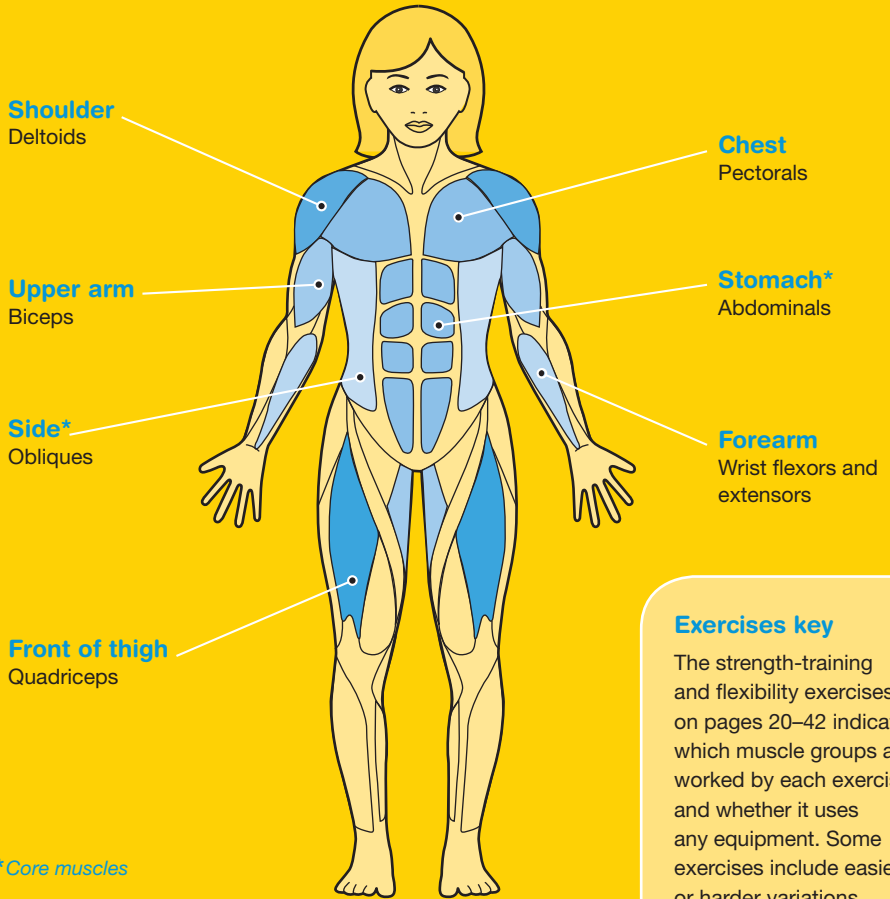
The cool-down allows your heart rate and blood pressure to gently return to normal. Also, a slow cool-down helps your body and muscles lose the heat gained during the activity.

A cool-down should involve 5–10 minutes of relaxed activity and/or light stretching.

If you have just finished an aerobic exercise session, slow walking or cycling is the best way to cool down. If you have done strength training, cool down with light stretching.

Muscle groups

These diagrams show the major muscle groups of the human body. Aerobic exercise focuses on improving your heart and lung fitness, but also works many of your body's muscles. Strength-training and flexibility exercises both focus on the muscles, with individual exercises usually targeting specific muscle groups.



Exercises key

The strength-training and flexibility exercises on pages 20–42 indicate which muscle groups are worked by each exercise and whether it uses any equipment. Some exercises include easier or harder variations.

The exercises in this booklet cover a range of muscle groups (see key below). An exercise professional can help you plan a weekly program that covers all the muscle groups and concentrates on any areas that need particular attention.

Upper back
Trapezius

Middle back
Latissimus dorsi

Lower back
Erector spinae

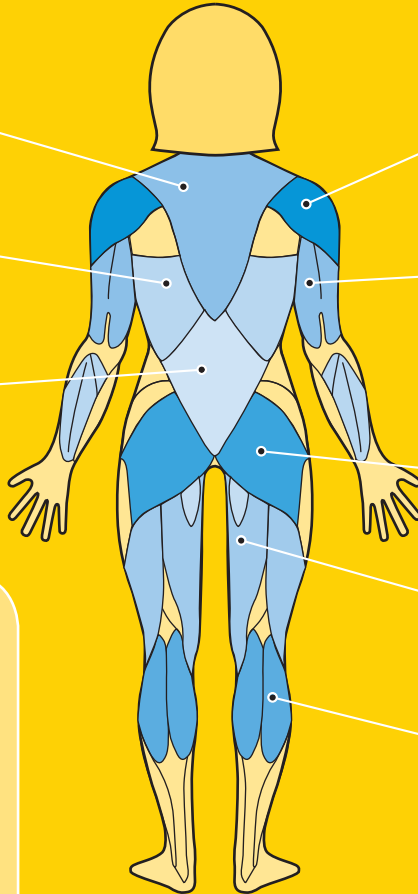
Shoulders
Deltoids

Back of arm
Triceps

Buttocks
Gluteals (glutes)

Back of thigh
Hamstrings

Calf
Ankle flexors
and extensors



Look for these symbols
on the exercises:



Muscle group



Equipment



Make it easier



Make it harder



Aerobic exercise

Aerobic exercise uses large muscle groups and causes your heart rate to rise during the activity. Heart and lung fitness are improved, and strenuous tasks become easier.

Popular forms of aerobic exercise include walking and cycling, but everyday activities such as digging in the garden also count. You can also build aerobic exercise into your daily routine, for example, by always walking up stairs instead of using a lift; parking some distance from your destination and walking the rest of the way; or riding a stationary bike while watching TV.

Types of aerobic exercise

- Aerobics/cardio classes
- Aquarobics
- Boxing training
- Bushwalking
- Cleaning
- Cycling
- Dancing
- Gardening
- Golf
- Jogging
- Lawn mowing
- Rowing
- Running
- Swimming
- Team sports
- Tennis
- Walking

How much?

You need to find a balance between not working hard enough and working too hard. If you do not work hard enough, you may not achieve your exercise goals. If you work too hard, you risk injury.

Exercise at a level you are comfortable with, but try to vary the duration and intensity (see box opposite for an explanation of exercise intensity).

Adults should aim for at least 2½ hours of moderate-intensity aerobic exercise per week (or 1¼ hours of vigorous-intensity aerobic exercise per week). If you have just completed cancer treatment, this may seem ambitious, but it is a goal to work towards steadily. Remember that some exercise is better than none.

For extra health benefits, you can exercise beyond this recommendation by gradually increasing the frequency and duration of your exercise sessions and then increasing exercise intensity. If you were very fit before your cancer diagnosis, your goal may be to maintain or return to your weekly activity levels.

Measuring exercise intensity

How hard your body is working during physical activity is known as exercise intensity and is often described as low, moderate or vigorous. There are different ways to measure the intensity of your aerobic exercise. A simple method is the talk test.

How easy is it to talk?	Exercise intensity
You are able to sing	Light
You can carry on a conversation but need to pause for breath from time to time	Moderate
You are huffing and puffing and keeping conversation short	Moderate to vigorous
You find it difficult to speak	Vigorous



Strength-training exercises

Strength training uses weights or resistance to increase the strength and endurance of your muscles, as well as the strength of your bones. It is sometimes called resistance training or weight training.

The weights used in strength-training exercises include:

- **your own body weight** – as in push-ups and squats
- **free weights** – such as dumbbells and barbells, which you hold, or wrist and ankle weights, which you attach with straps
- **weight machines** – devices that have adjustable seats with handles attached to either weights or hydraulics
- **elastic resistance bands** – sometimes called TheraBands, these are like giant rubber bands that provide resistance when stretched; they are colour-coded according to the level of resistance.

An exercise professional can advise which weights and bands you should use. As a general guide, women might start with hand weights of 1 kg each and men might start with 2 kg. Once you can do 10–12 repetitions of an exercise easily and without strain, you can gradually add extra weight or use tighter bands.

You can buy free weights and resistance bands at sporting goods stores and some major retailers. Some people make hand weights from everyday objects, such as plastic bottles filled with water or sand. If you try this, use scales to check they are equal weight.

Some simple strength-training exercises are shown on the following pages. You may want to begin with exercises to develop your balance (see page 22) and strengthen your core muscles (see pages 23–25) and then progress to the other strengthening exercises.

How much?

Try to do 2–3 sessions of strength training each week, on every other day. It is important to have rest days between the sessions.

Strength-training exercises involve a number of variables:

- **repetition** – the completion of an exercise from starting position, through the movement, and back to the start
- **set** – a series of repetitions
- **rest** – the time between sets.

During each training session, you will complete a number of sets of different exercises. An exercise professional can help design the best program for you. As a guide, you might aim for 6–9 different exercises per session and choose exercises that target the major muscle groups of the arms, legs and torso (see pages 16–17). For each of the exercises in a session, you might do:

- 6–12 repetitions of the exercise per set
- 1–4 sets of the exercise per session
- 60–90 seconds of rest between sets.

A program should challenge your muscles without straining them, so that may also guide how many repetitions you do in a set to begin with. Once you become comfortable with a program, you can make it more demanding, but do this by small increases.

Check with your health care team before starting any new exercise program. Although we have provided strength-training exercises to suit most people, some of them may not be right for you.



One-leg balance



Overall balance



1

Stand on a soft but firm surface, such as an exercise mat or carpet.

2

Slowly bend one knee to lift the foot off the ground so that you are balancing on the other leg. Keep your eyes on a fixed point in front of you and breathe slowly and deeply. Hold the pose for several seconds if you can.

3

Lower your leg and put your foot back on the ground. Repeat the exercise with the other leg.

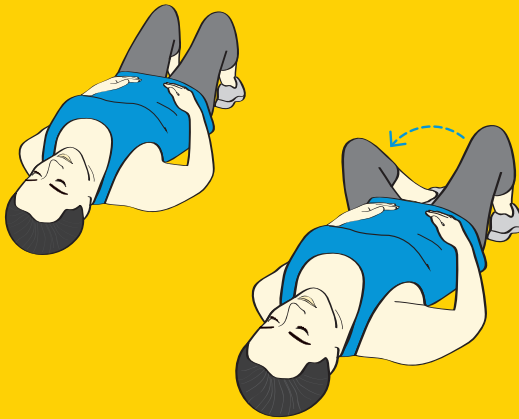
▼ You may want to start near a chair or wall so you can steady yourself.

▲ For a challenge, put your hands on your head as you balance and/or close your eyes.

Clamshell



Core (torso and pelvis)



1

Lie on your back with knees bent and your feet flat on the floor about hip width apart. Place your hands on your lower abdomen and lift your pelvic floor muscles (see pages 43–45). Keep breathing normally.

2

Slowly lower one knee out to the side, without moving the hips. Hold for 15–30 seconds.

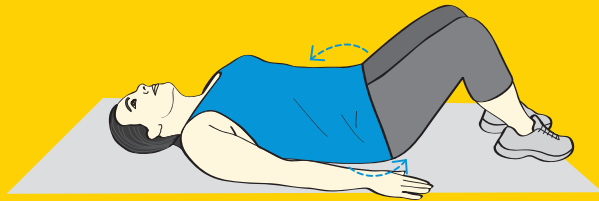
3

Return to starting position. Repeat with the other knee.

Pelvic tilt



Core (torso and pelvis)



1

Lie on your back with your knees bent and your feet flat on the floor about hip width apart.

2

Flatten your back by tightening the muscles in your abdomen and buttocks. This will tilt your pelvis up slightly. Hold for several seconds.

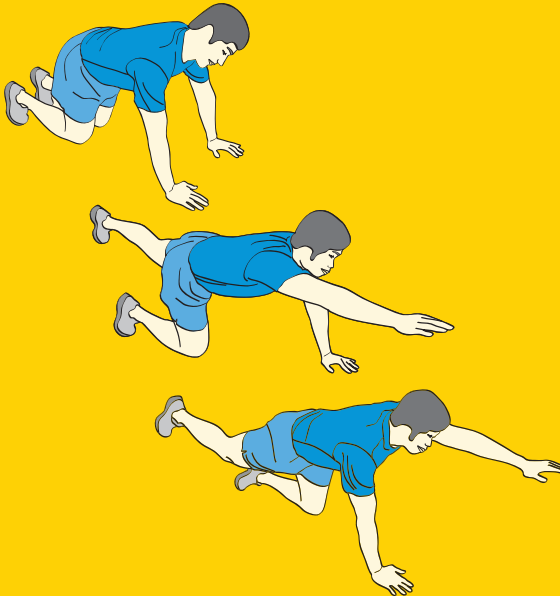
3

Relax the muscles and rest for a few seconds, then repeat the pelvic tilt.

Bird-dog



Core (torso and pelvis)



1

Start on all fours, with legs hip width apart, knees directly under hips, hands directly under shoulders, and back in a straight line. Do not lock the shoulders.

2

Keeping your back flat and steady, extend one leg while supporting the torso with both hands on the floor. Once balanced, slowly extend the opposite arm. Pause for 5–10 seconds.

3

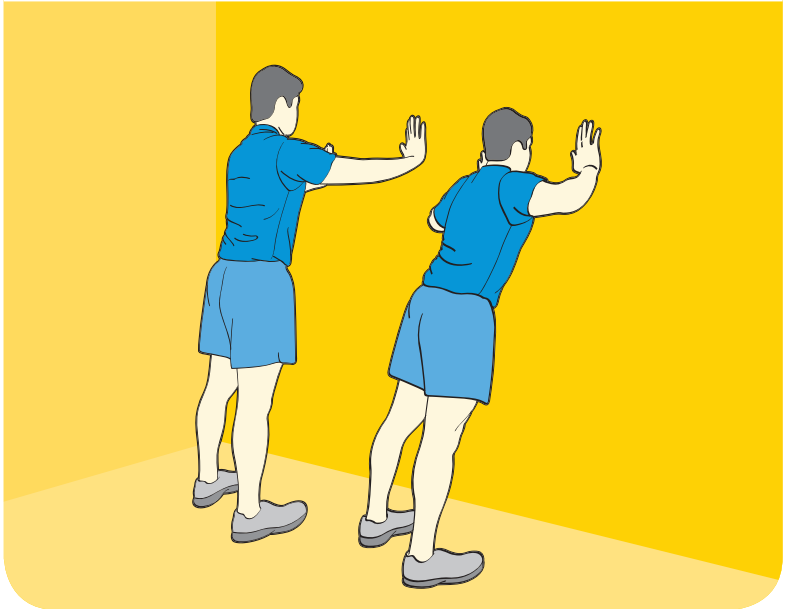
Maintain normal breathing. Slowly return to all fours. Change sides and repeat the bird-dog pose.

- ▼ If you find it hard to keep your balance, leave both hands on the floor and just extend one leg at a time. The bird-dog can also be performed lying over a fitball, which can be a useful alternative for people with bad knees who find it difficult to kneel.

Standing push-up



Chest and shoulders



1

Stand with your feet shoulder width apart. Lean slightly against the wall with your arms outstretched at shoulder height and your hands on the wall. Do not lock your elbows or knees.

2

Slowly move your body towards the wall, bending your arms at the elbow.

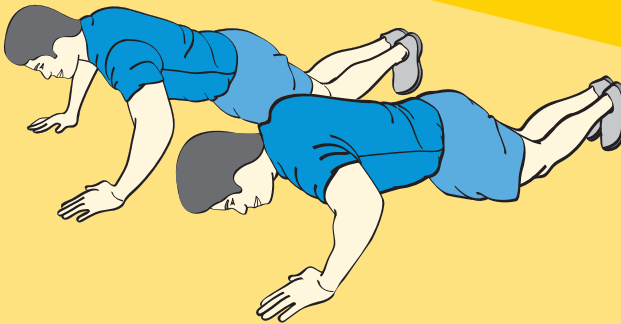
3

Once your nose is close to the wall, push away, against your body weight. Breathe out as you push back to the starting position. Repeat the standing push-up.

Modified push-up



Chest, shoulders and arms



1

Start with your knees and hands on the floor and your arms extended. Keep your back and bottom as straight as possible, and keep your head in line with your spine.

2

Lower your torso slowly, bending your arms at the elbow.

3

Push up – try not to lock your elbows at the top. Breathe out as you push back up to the starting position. Repeat the modified push-up.

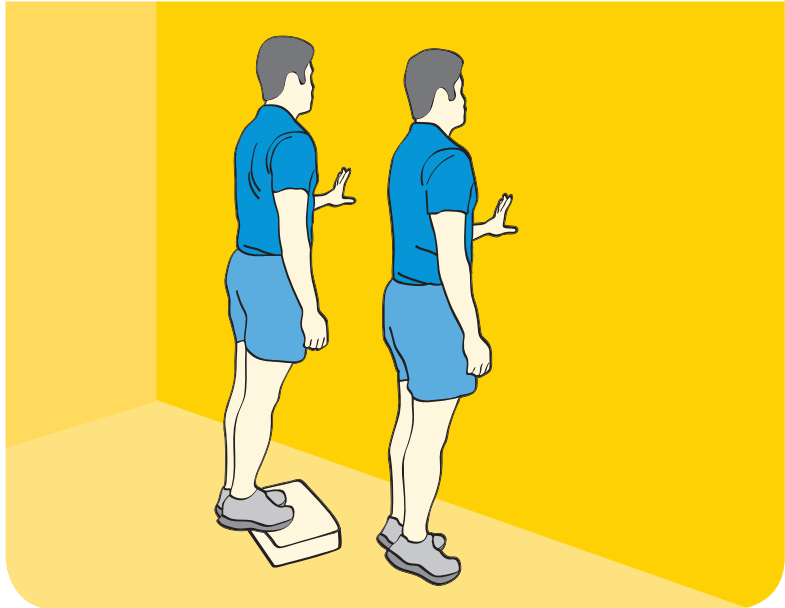
▼ If you feel any pain in your back doing this exercise, bring your hands closer to your body.

Calf raise



Calves (back of lower leg)

◇ **Step, hand weights** (optional)



1

Stand upright, with a wall or chair as support if necessary.

2

Lift your heels off the ground, keeping your knees and body straight. Breathe out while lifting.

3

Hold the position for a moment. Return to the starting position, then repeat the calf raise.

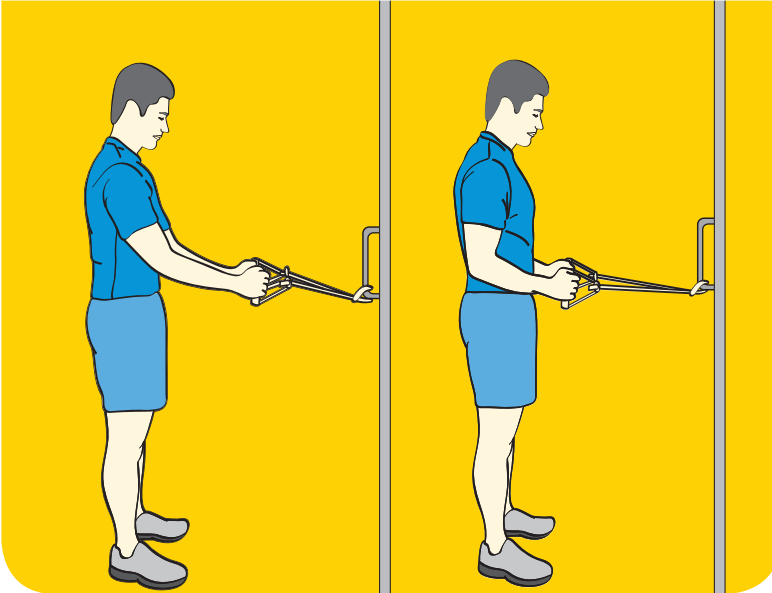
▲ Increase the difficulty slightly by standing with the balls of your feet on a small step (so that your heels hang over the edge) and/or holding weights in your hands. You can also add challenge by doing the exercise one leg at a time.

Standing row



Shoulders, back and triceps (back of arm)

◇ **Elastic resistance band**



1

Attach the resistance band to a fixed point, ensuring it is well secured. Stand with your arms outstretched at waist height.

2

Pull the resistance band by drawing your elbows backwards and maintaining hands at waist height. Breathe out while pulling the band. Make sure your spine does not move, but keep your neck and upper shoulders relaxed.

3

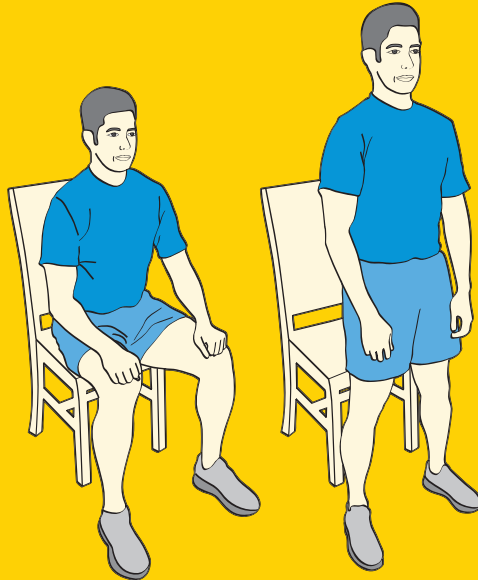
Slowly return to the starting position, then repeat the standing row.

Chair rise



Quadriceps (front of thigh) and **gluteals** (buttocks)

◇ **Chair**



1

Sit towards the middle or front of a chair with your hands on your knees.

2

Stand up, using your hands on your knees for assistance if necessary. Keep your back straight as you stand up. Breathe out while standing.

3

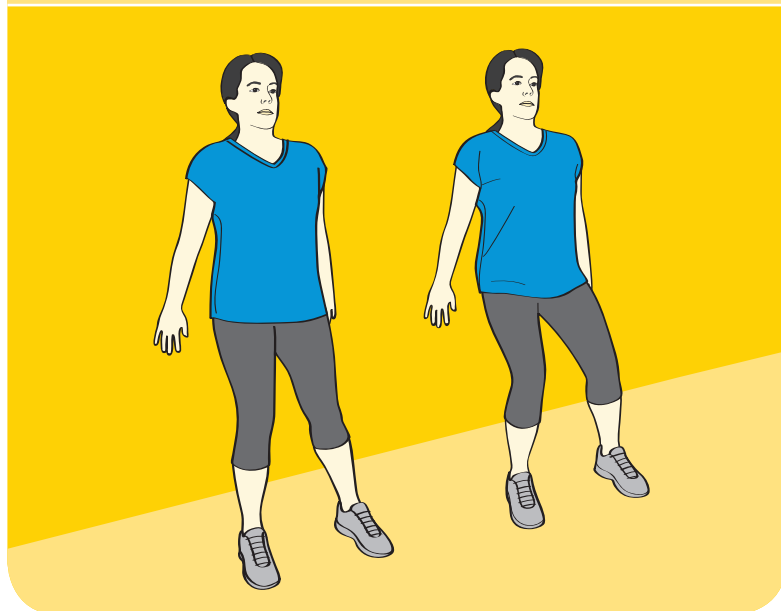
Sit back down slowly, then repeat the chair rise.

▲ Add a challenge by standing without using your hands to assist, then try with your arms across your chest. When standing unassisted, stand in one movement without rocking.

Wall squat



Quadriceps (front of thigh) and **gluteals** (buttocks)



1

Stand 30–40 cm from a wall with feet shoulder width apart. Slightly bend your knees and lean back into the wall, placing your arms and palms against the wall. Tilt your pelvis so your back is flat to the wall. Tuck your chin in.

2

Keeping your body in contact with the wall, slide down (as if to sit) until you can feel your legs working – this may not be very far. Hold for 10–30 seconds if you can.

3

Slowly slide up until you are back into starting position, then repeat the wall squat.

- ▲ Add a challenge by sliding further down the wall, but stop before the knees go over and in front of the toes (there should be no more than a 90-degree angle between hip and knee).

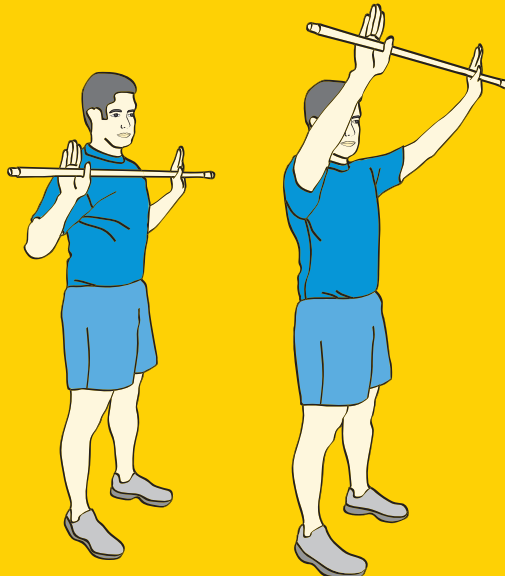
Shoulder press



Shoulders



Gymstick, barbell, pole, broomstick or hand weights



1

Stand with your feet shoulder width apart. Hold the bar at chest height with your elbows almost completely bent (so they are almost touching your sides).

2

Push the bar up until it is above and slightly in front of your head. Breathe out during the lift and maintain good posture – don't raise your shoulders.

3

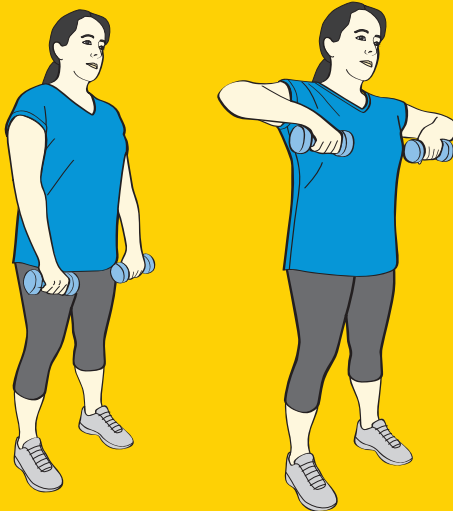
Pause, then lower the bar back to the starting position. Repeat the lift.

▲ Increase the difficulty by adding weight or elastic resistance to the bar.

Upright row



Shoulders and trapezius (upper back) ◆ Hand weights



1

Stand with your arms by your side and your feet shoulder width apart. Hold the weights with palms facing your thighs. Tighten the tummy muscles (abdominals).

2

Bending your arms, raise both weights slowly up to shoulder height. Breathe out when lifting the weights and avoid jerking them up. Maintain your head and neck position, looking straight ahead. Feel the exercise work the muscles in your shoulders and not in your neck.

3

Pause, then lower both weights back to the starting position. Repeat the lift.

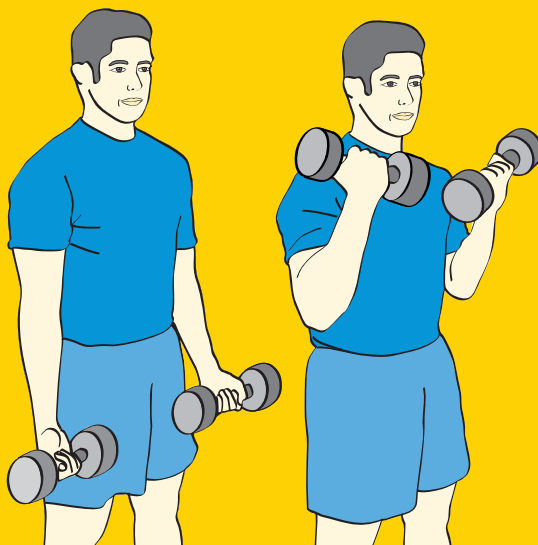
Biceps curl



Biceps (upper arm)



Hand weights, Gymstick or barbell



1

Stand with your arms by your side. Hold the weights with your palms pointing forward.

2

Bend your elbows to lift the weights to shoulder height. Keep your elbows tucked in, avoid moving your shoulders and make sure your body does not sway. Breathe out during the lift.

3

Slowly return almost to the starting position but do not fully straighten your elbows – keep them slightly bent. Repeat the lift.



Flexibility exercises

Flexibility exercises, also known as stretches or range-of-motion (ROM) exercises, lengthen muscles and tendons. They improve or maintain the flexibility of joints and muscles. We naturally lose joint and muscle flexibility as we get older, but cancer treatments can also have an impact. Regular stretching helps to overcome stiffness and can delay any loss of flexibility.

Some simple flexibility exercises that can be done at home are described on the following pages. You could also join an exercise class that focuses on stretching, such as a yoga class. Remember to check with your health care team before beginning any exercise program. Although we have included flexibility exercises to suit most people, some may not be right for you.

How much?

Try to do flexibility exercises three to four times a week. Include stretches for arm, leg and torso (core) flexibility. In each session, you might do 1–3 sets of 4–6 different stretches.

Tips for stretching

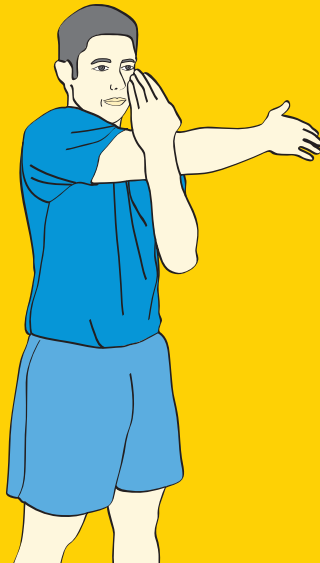
- Warm up your muscles first. An ideal time to stretch is during the cool-down phase.
- Maintain good posture, and stretch slowly and steadily. Do not bounce.
- Keep breathing normally. Do not hold your breath.
- Know your limitations – you should feel a stretch and possibly mild discomfort, but you should not feel pain.



Shoulder stretch



Shoulders



1

Stand with your feet about hip width apart.

2

Pull one arm across your chest. Keep your elbow just below your shoulder-line. Hold the stretch for 15–30 seconds.

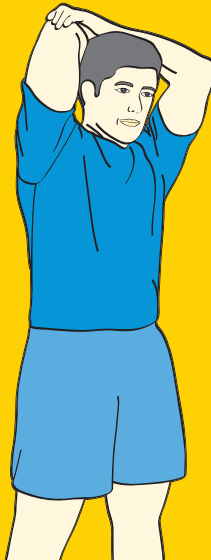
3

Repeat the stretch on the other side.

Triceps stretch



Triceps (back of arm)



1

Lift one arm and bend your elbow with your forearm down your back.

2

Using the elbow as a lever, use your other arm to gently push the arm down your back. Hold the stretch for 15–30 seconds.

3

Repeat the stretch on the other side.

Pectoral and biceps stretch



Pectoral (chest) **and biceps** (upper arm)



1

Stand near a wall or a pole. Raise one arm out to the side so it is parallel to the floor, and hold the wall or pole with your hand.

2

Without moving your feet, partially turn your body away from the arm that is holding the wall/pole. Hold the stretch for 15–30 seconds.

3

Repeat the stretch on the other side.

Quadriceps stretch



Quadriceps (front of thigh)



1

Stand on one leg, with a wall or chair for support if necessary.

2

Hold your foot with your hand and pull the leg towards your buttocks by the ankle. Make sure you keep your torso straight. Hold the stretch for 15–30 seconds.

3

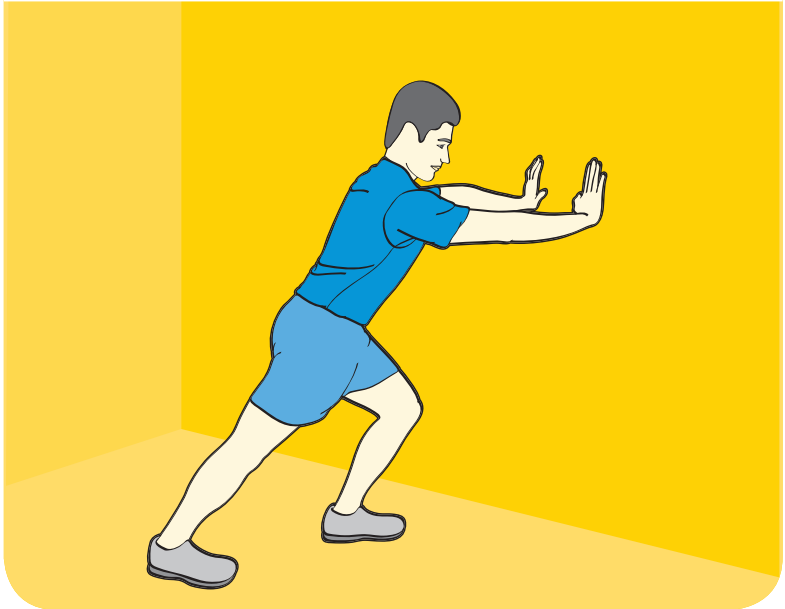
Repeat the stretch on the other side.

▼ You can use a towel to help bring your foot up towards your buttock. Another option is to do this stretch lying down on your stomach.

Calf stretch



Calves (back of lower leg)



1

Stand facing a wall with your arms straight and hands flat against the wall. Step one of your feet straight back, placing the heel flat on the floor.

2

Lean forward against the wall and partially bend your front leg. Keep your back leg (stretching leg) completely extended and your foot flat on the floor – move the foot backwards until you feel the stretch. Hold for 15–30 seconds.

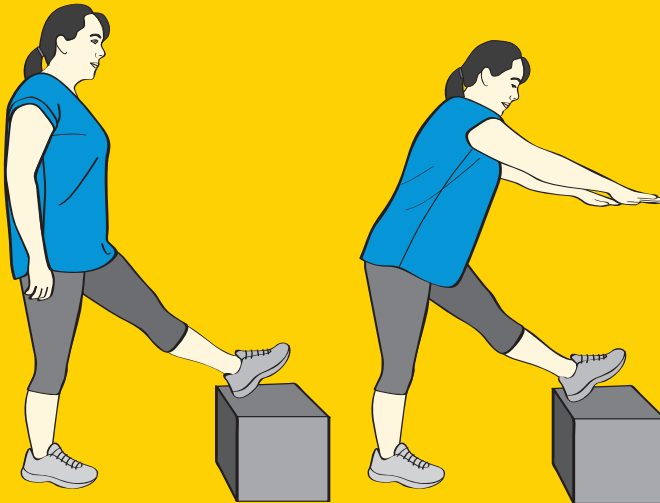
3

Repeat the stretch on the other side.

Hamstrings stretch



Hamstrings (back of thigh) ◆ **Step or box** (about 30 cm high)



1

Stand on one leg with the other foot on the step. At first, you may want to do this near a wall in case you need to steady yourself.

2

Lean forward from the hips, pushing your chest towards your knee. Keep your back straight. Hold the stretch for 15–30 seconds.

3

Repeat the stretch on the other side.

▲ For more of a stretch, place the foot of the leg being stretched flat on the step.

Lower back stretch



Lower back



1

Sit on a chair or bench. Keep your feet on the ground and your knees partly bent.

2

Curl your torso forward and hold the stretch for 15–30 seconds.

3

Slowly sit back up and pause, then repeat the stretch.



Pelvic floor exercises

Your pelvic floor muscles span the bottom of your pelvis and support your bowel and bladder, and your uterus if you're a woman. As well as providing support, strong pelvic floor muscles are important for control of urination and bowel movements, normal sexual function, and stability of the abdomen and spine.

Like other muscles, your pelvic floor can become weak. Factors that can contribute to this include age, childbirth, constipation, obesity, chronic cough, heavy lifting, and abdominal or pelvic surgery.

See a physiotherapist or continence nurse before doing pelvic floor exercises if you:

- have had recent pelvic or abdominal surgery
- have problems with urine or faeces leaking when coughing, sneezing, laughing or exercising
- often need to go to the toilet urgently
- have difficulty controlling bowel movements and wind
- feel like you haven't fully emptied your bowel after bowel movements
- have dragging, heaviness or a bulge in the vagina
- experience a lack of sensation during sex.

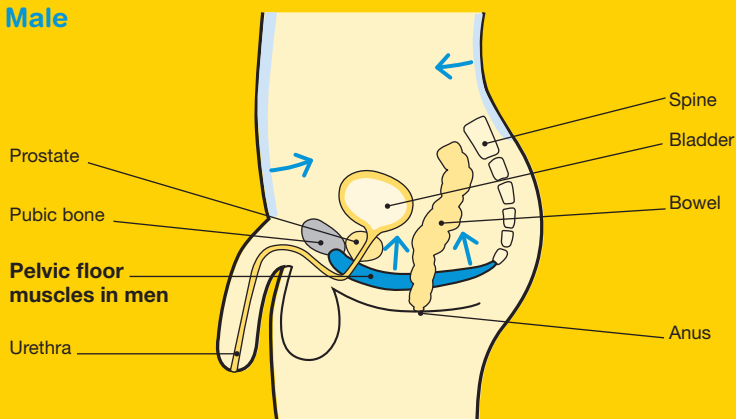
How to find your pelvic floor muscles

To identify your pelvic floor muscles, try stopping your urine stream for a couple of seconds while emptying your bladder. You use your pelvic floor muscles to do this. Another way is to feel the muscles you use when you imagine stopping the flow of urine and holding in wind. This can be done standing, sitting or lying down.

How to exercise your pelvic floor muscles

Pelvic floor exercises should be done several times a day. You can be standing, sitting or lying down. You can even do them while watching TV or waiting at traffic lights. The technique is the same for men and women.

Male



1

Start by relaxing all of your pelvic floor and tummy (abdominal) muscles.

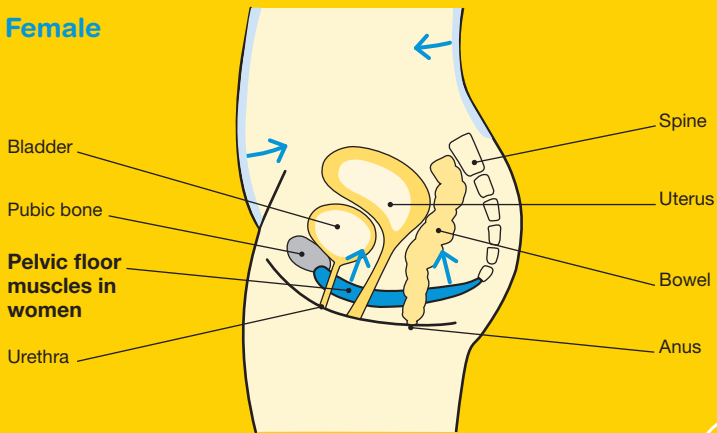
2

Gently lift your pelvic floor muscles up and hold while you continue to breathe normally. Try to hold the contraction for up to 10 seconds.

3

Repeat the exercise up to 10 times, with a rest of 10–20 seconds between contractions. Relax your pelvic floor muscles completely during the rest periods.

Female



Tips for good technique

Poor technique can make pelvic floor exercises ineffective or even risk injury. Remember these points:

- ✓ Do not hold your breath.
- ✓ Do not tighten your tummy above the belly button. Focus on pulling up and holding onto urine and wind.
- ✓ Do not try too hard. You may end up contracting nearby muscles rather than the pelvic floor muscles themselves. Try changing positions if you can't feel the pelvic floor muscles lifting and squeezing.





Seeking support

Cancer may cause you to experience a range of emotions, such as fear, sadness, anxiety, anger or frustration. It can also cause practical and financial problems.

Practical and financial help

There are many services that can help deal with practical or financial problems caused by the cancer. Benefits, pensions and programs can help pay for prescription medicines, transport costs or utility bills. Home care services, aids and appliances can also be arranged to help make life easier.

Ask the hospital social worker which services are available in your local area and if you are eligible to receive them.

If you need legal or financial advice, you should talk to a qualified professional about your situation. Cancer Council offers free legal and financial services in some states and territories for people who can't afford to pay – call 13 11 20 to ask if you are eligible.

Talk to someone who's been there

Coming into contact with other people who have had similar experiences to you can be beneficial. You may feel supported and relieved to know that others understand what you are going through and that you are not alone.

People often feel they can speak openly and share tips with others who have gone through a similar experience.

In a support setting, you may find that you are comfortable talking about your diagnosis and treatment, relationships with friends and family, and hopes and fears for the future. Some people say they can be even more open and honest because they aren't trying to protect their loved ones.

Types of support

There are many ways to connect with others for mutual support and to share information. These include:

- **face-to-face support groups** – often held in community centres or hospitals
- **telephone support groups** – facilitated by trained counsellors
- **peer support programs** – match you with someone who has had a similar cancer experience, e.g. Cancer Connect
- **online forums** – such as cancerconnections.com.au.

Talk to your nurse, social worker or Cancer Council 13 11 20 about what is available in your area.

“ My family members don't really understand what it's like to have cancer thrown at you, but in my support group, I don't feel like I have to explain. ” *Sam*




Caring for someone with cancer

You may be reading this booklet because you are caring for someone with cancer. Being a carer can be stressful and cause you much anxiety. Try to look after yourself – give yourself some time out and share your worries and concerns with somebody neutral, such as a counsellor or your doctor. Exercise can also help, so the information in this booklet may be relevant for you too.

Many cancer support groups and cancer education programs are open to carers, as well as people with cancer. Support groups and programs can offer valuable opportunities to share experiences and ways of coping.

Support services such as Home Help, Meals on Wheels or visiting nurses can help you in your caring role. You can find local support services, as well as practical information and resources, through the Carer Gateway. Visit carergateway.gov.au or call 1800 422 737.

Carers Australia is the national body representing carers in Australia. It works with the Carers Associations in each of the states and territories. Phone 1800 242 636 or visit their website at carersaustralia.com.au. You can also call Cancer Council 13 11 20 to find out more about carers' services and get a copy of the *Caring for Someone with Cancer* booklet.

“Caring for my mum was deeply emotional. It was difficult, but it gave me a tremendous sense of caring and giving.”  Sharyn



Useful websites

The internet has many useful resources, although not all websites are reliable. The websites below are good sources of information.

Australian

Cancer Council Australia.....	cancer.org.au
Cancer Australia	canceraustralia.gov.au
Cancer Connections.....	cancerconnections.com.au
Carers Australia	carersaustralia.com.au
Department of Health	health.gov.au
Department of Human Services (including Centrelink and Medicare)	humanservices.gov.au
healthdirect Australia.....	healthdirect.gov.au
Exercise & Sports Science Australia	essa.org.au

International

American Cancer Society.....	cancer.org
Macmillan Cancer Support (UK).....	macmillan.org.uk
National Cancer Institute (US).....	cancer.gov
Cancer Research UK.....	cancerresearchuk.org



Glossary

abdomen

The part of the body between the chest and hips, which contains the stomach, liver, bowel, bladder and kidneys.

aerobic

Exercises that cause heart and breathing rates to rise.

anaemia

Deficiency in the number and quality of blood cells in the body.

anaerobic

Exercises that focus on single muscles or muscle groups.

biceps

The muscles on the top of the arm between the elbow and the shoulder.

chemotherapy

The use of cytotoxic drugs to treat cancer by killing cancer cells or slowing their growth.

continence

The control over bladder and bowel movements. See also incontinence.

core stability

The stomach and lower back muscles that stabilise the body as it moves.

exercise physiologist

A university-trained professional who specialises in using exercise as medicine, particularly for people with medical conditions. Also known as an Accredited Exercise Physiologist (AEP).

exercise scientist

A university-trained professional who specialises in designing exercise programs for healthy people.

flexibility

The range of movement in a joint (e.g. knee) or series of joints (e.g. leg).

gluteals

The muscles of the bottom.

hamstrings

The muscles on the back of the leg between the knee and the hip.

incontinence

Inability to control the loss of urine or faeces.

low intensity

Activity that is easy and doesn't cause much exertion.

lymphoedema

Swelling caused by a build-up of lymph fluid, which can happen when lymph vessels or nodes don't drain properly.

moderate intensity

Activity that isn't too hard, but is hard enough to be of benefit. Breathing and heart rates increase during moderate-intensity activity.

nausea

Feeling sick or wanting to be sick.

neutropenia

A drop in the number of white blood cells called neutrophils.

oncologist

A doctor who specialises in the study and treatment of cancer.

pectorals

Muscles on the front of the upper chest, behind the breasts in women.

pelvic floor exercises

Exercises to strengthen the muscles that control the bladder and bowel.

personal trainer

A person who can plan and supervise exercise programs, but has not been trained to prescribe exercise for people with chronic medical conditions.

physiotherapist

A university-trained professional who treats injury, disease or disability with physical methods such as massage and exercise.

platelets

Blood cells that help the blood to clot and stop bleeding.

quadriceps

The muscles on the front of the leg between the knee and the hip.

radiotherapy (radiation therapy)

The use of radiation, usually x-rays or gamma rays, to kill cancer cells or injure them so they cannot multiply.

red blood cells

Blood cells that carry oxygen around the body.

strength training

Using muscles to move weight with the aim of increasing muscle strength. Also called resistance or weight training.

trapezius

The muscles of the upper back.

triceps

The muscles on the back of the arm between the elbow and the shoulder.

vigorous intensity

Hard exercise that can usually only be done for short periods of time.

white blood cells

Blood cells that help fight infection.

Can't find a word here?

For more cancer-related words, visit:

- cancercouncil.com.au/words
- cancervic.org.au/glossary
- cancersa.org.au/glossary

References

1. LM Buffart et al., 'Evidence-based physical activity guidelines for cancer survivors: Current guidelines, knowledge gaps and future research directions', *Cancer Treatment Reviews*, vol. 40, no. 2, 2014, pp. 327–40.
2. SC Hayes et al., 'Australian Association for Exercise and Sport Science position stand: Optimising cancer outcomes through exercise', *Journal of Science and Medicine in Sport*, vol. 12, no. 4, 2009, pp. 428–34.
3. Australian Government Department of Health, *Australia's Physical Activity and Sedentary Behaviour Guidelines for Adults (18–64 years)*, Commonwealth of Australia, Canberra, 2014.



How you can help

At Cancer Council, we're dedicated to improving cancer control. As well as funding millions of dollars in cancer research every year, we advocate for the highest quality care for cancer patients and their families. We create cancer-smart communities by educating people about cancer, its prevention and early detection. We offer a range of practical and support services for people and families affected by cancer. All these programs would not be possible without community support, great and small.

Join a Cancer Council event: Join one of our community fundraising events such as Daffodil Day, Australia's Biggest Morning Tea, Relay For Life, Girls' Night In and Pink Ribbon Day, or hold your own fundraiser or become a volunteer.

Make a donation: Any gift, large or small, makes a meaningful contribution to our work in supporting people with cancer and their families now and in the future.

Buy Cancer Council sun protection products: Every purchase helps you prevent cancer and contribute financially to our goals.

Help us speak out for a cancer-smart community: We are a leading advocate for cancer prevention and improved patient services. You can help us speak out on important cancer issues and help us improve cancer awareness by living and promoting a cancer-smart lifestyle.

Join a research study: Cancer Council funds and carries out research investigating the causes, management, outcomes and impacts of different cancers. You may be able to join a study.

To find out more about how you, your family and friends can help, please call your local Cancer Council.



Cancer Council 13 11 20

Being diagnosed with cancer can be overwhelming. At Cancer Council, we understand it isn't just about the treatment or prognosis. Having cancer affects the way you live, work and think. It can also affect our most important relationships.

When disruption and change happen in our lives, talking to someone who understands can make a big difference. Cancer Council has been providing information and support to people affected by cancer for over 50 years.

Calling 13 11 20 gives you access to trustworthy information that is relevant to you. Our cancer nurses are available to answer your questions and link you to services in your area, such as transport, accommodation and home help. We can also help with other matters, such as legal and financial advice.

If you are finding it hard to navigate through the health care system, or just need someone to listen to your immediate concerns, call 13 11 20 and find out how we can support you, your family and friends.

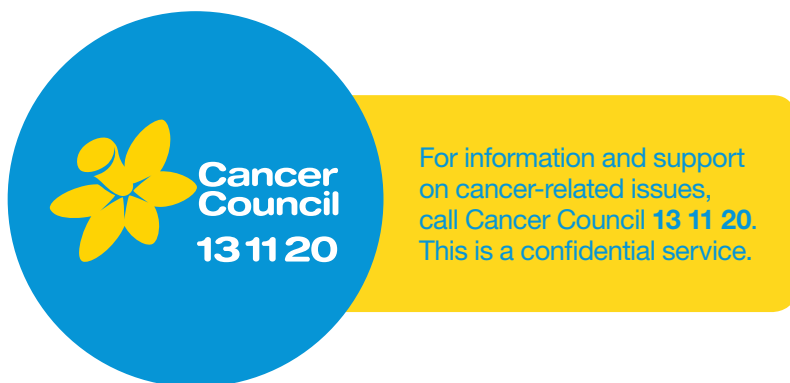
Cancer Council services and programs vary in each area.
13 11 20 is charged at a local call rate throughout Australia (except from mobiles).



If you need information in a language other than English, an interpreting service is available. Call 13 14 50.



If you are deaf, or have a hearing or speech impairment, contact us through the National Relay Service.
www.relayservice.gov.au



Visit your local Cancer Council website

Cancer Council ACT
actcancer.org

Cancer Council NSW
cancercouncil.com.au

Cancer Council NT
nt.cancer.org.au

Cancer Council Queensland
cancerqld.org.au

Cancer Council SA
cancersa.org.au

Cancer Council Tasmania
cancertas.org.au

Cancer Council Victoria
cancervic.org.au

Cancer Council WA
cancerwa.asn.au

Cancer Council Australia
cancer.org.au

*This booklet is funded through the generosity of the people of Australia.
To support Cancer Council, call your local Cancer Council or visit your local website.*