

Exercise for People Living with Cancer

A guide for people with cancer, their families and friends



For information & support, call **13 11 20**

Exercise for People Living with Cancer

A guide for people with cancer, their families and friends

First published October 2007. This edition August 2023.

© Cancer Council Australia 2023. ISBN 978 1 923073 01 2

Exercise for People Living with Cancer is reviewed approximately every 3 years.

Check the publication date above to ensure this copy is up to date.

Editor: Wendy Winkler. Designer: Eleonora Pelosi and Ali Wright. Printer: IVE Group.

Acknowledgements

This edition has been developed by Cancer Council NSW on behalf of all other state and territory Cancer Councils as part of a National Cancer Information Subcommittee initiative. We thank the reviewers of this booklet: Kirsten Adlard, Accredited Exercise Physiologist, The University of Queensland, QLD; Dr Diana Adams, Medical Oncologist, Macarthur Cancer Therapy Centre, NSW; Grace Butson, Senior Physiotherapist, Peter MacCallum Cancer Centre, VIC; Kate Cox, 13 11 20 Consultant, Cancer Council SA; Wai Yin Chung, Consumer; Thomas Harris, Men's Health Physiotherapist, QLD; Clare Hughes, Chair of Cancer Council's Nutrition, Alcohol and Physical Activity Committee; Jen McKenzie, Level 1 Lymphoedema Physiotherapist, ESSA Accredited Exercise Physiologist, The McKenzie Clinic, QLD; Claudia Marck, Consumer; Dr David Mizrahi, Accredited Exercise Physiologist and Research Fellow, The Daffodil Centre at Cancer Council NSW and The University of Sydney, NSW; Prof Rob Newton, Professor of Exercise Medicine, Exercise Medicine Research Institute, Edith Cowan University, WA; Jason Sonneman, Consumer. We also thank the health professionals, consumers and editorial teams who have worked on previous editions of this title.

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 booklet 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 8 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.



Cancer Council acknowledges Traditional Custodians of Country throughout Australia and recognises the continuing connection to lands, waters and communities. We pay our respects to Aboriginal and Torres Strait Islander cultures and to Elders past, present and emerging.



Cancer Council Australia Level 2, 320 Pitt Street, Sydney NSW 2000 ABN 91 130 793 725

Telephone 02 8256 4100 **Email** info@cancer.org.au **Website** cancer.org.au

About this booklet

This booklet has been prepared to help you understand more about exercise, and the benefits of physical activity before, during and after cancer treatment. We have included tips on getting physically active and preparing for exercise, plus some exercises that you can do at home or with an exercise professional. Before starting any new exercise, it is important to check with your health care team.

We cannot give advice about the best exercise program for you. You will need to discuss this with your doctors and qualified exercise professionals, such as an accredited exercise physiologist or physiotherapist. However, this information may answer some of your questions and help you think about what to ask your treatment team or exercise professional (see page 49 for a question checklist).

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 (see pages 50–51). 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 or concerns, call **Cancer Council 13 11 20**. We can send you more information and connect you with support services in your area. You can also visit your local Cancer Council website (see back cover).



Contents

What is exercise?	4
Physical activity and exercise	4
The different types of exercise	5
Why you need exercise after a cancer diagnosis	6
What are the benefits of exercise?	6
How much exercise should I do?	7
How exercise can ease common side effects	8
Side effects that need extra care	10
Getting started	12
Seeing an exercise professional	12
Tips for starting an exercise program	14
Planning an exercise session	16
Muscle groups	18
Aerobic and cardio exercise	20
Strength and resistance training	21
Standing wall push-up	23
Modified knee push-up	24
Calf raise	25
Standing row	26
Chair rise	27
Wall squat	28
Shoulder press	29
Upright row	30
Biceps curl	31

Clamshell	32
Pelvic tilt	33
Bird-dog	34

Flexibility exercises **35**

Shoulder stretch	36
Triceps stretch	37
Pectoral and biceps stretch	38
Quadriceps stretch	39
Calf stretch	40
Hamstrings stretch	41

Balance exercises **42**

One-leg balance	43
-----------------	----

Pelvic floor exercises **44**

Support and information **47**

Useful websites	47
Support from Cancer Council	48

Question checklist **49**

Glossary **50**

How you can help **52**

Key to icons

Icons are used throughout this booklet to indicate:



More information



Alert



Tips

What is exercise?

Physical activity and exercise

Physical activity is a broad term for body movement that uses your muscles, and may speed up your breathing and heart rate. It includes exercise sessions as well as some everyday activities, like housework, gardening and walking the dog.

Exercise is usually structured physical activity that aims to improve health and fitness. It can include doing planned or specific movements (like you would in a yoga class or with an exercise physiologist), or other physical activity (like going for a bike ride or walk). See the page opposite for the benefits of different types of exercise.

The next few pages explain why exercise is important for people with or recovering from cancer, and any precautions to take. We also give a guide to how much exercise you can aim to do. Most people take some time to get back into exercise, so try to be patient with yourself - it's okay to try a little to start with and work up to what you need to do.

“I walk 3 or 4 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



Check with your health care team before starting any exercise. The exercises in this booklet suit most people, but may not be safe for you.

The different types of exercise



Aerobic and cardio exercise (page 20)

- Uses large muscle groups repeatedly and is usually done over an extended period.
- Causes your heart and breathing rates to rise.
- Increases your ability to use oxygen, which improves heart, lung and muscle fitness.
- With time, strenuous tasks become easier.



Strength and resistance training (pages 21–34)

- Makes your muscles work harder than usual against some sort of resistance.
- Strength or resistance training is also known as weight training.
- Over time, improves the size, quality and capacity of your muscles.



Flexibility exercises (pages 35–41)

- Can help to stretch your muscles.
- Improve your flexibility or how far you can move – also called your range of motion.
- Include yoga and Pilates.



Balance exercises (pages 42–43)

- Being able to stay upright or in control of your body movement.
- Often done by being still (static) but sometimes also by moving (dynamic).
- Improve stability, which can help to prevent falls.

Along with exercise, eating well is essential for health and wellbeing. See a dietitian and read our *Nutrition for People Living with Cancer* booklet. You may also like to listen to our podcast *Finding Calm During Cancer* for relaxation and meditation exercises.

Why you need exercise after a cancer diagnosis

If you have cancer, or are having treatment or recovering, you may think that you just need rest. But research shows that exercise benefits most people with cancer before, during and after treatment.

Many people with cancer lose fitness, muscle mass and strength, and find it harder to do normal everyday tasks. Exercise can improve physical function and fatigue and help you regain strength to get back to your daily activities.

What are the benefits of exercise?

Exercise is important for everyone's overall health and wellbeing, but it has a range of general benefits for people with cancer. It may:

- improve how you respond to treatment (for some cancers)
- reduce the risk and severity of side effects of cancer treatments
- reduce complications from surgery and time spent in hospital
- help with recovery from treatment by increasing energy levels, reducing treatment-related muscle loss, strengthening bones, and improving mobility and balance
- improve sleep and fatigue, and relieve stress, anxiety and depression
- help maintain a healthy weight
- reduce the risk of developing or improve health issues, such as high blood pressure, heart disease, stroke, osteoporosis and type 2 diabetes
- reduce the risk of some cancers coming back, including breast, prostate, bowel and endometrial (uterine) cancers
- boost mood and self-esteem
- offer new ways to meet people and socialise.

How much exercise should I do?

The Clinical Oncology Society of Australia (COSA) recommends that exercise should be prescribed to all cancer patients as a standard part of their cancer care to help manage the effects of cancer and its treatment. Exercise & Sports Science Australia (ESSA) also encourages people with cancer to exercise.¹⁻²

Aim to be as physically active as your abilities allow. Exercise for people living with cancer should be tailored to the type and stage of cancer and any side effects. Talk to an exercise professional (an accredited exercise physiologist or physiotherapist) or a clinical nurse consultant about how much and what type of exercise is best for you.

COSA recommends that people with cancer who are relatively healthy and have been assessed as low risk, aim for and maintain per week:

- at least 2½ hours of moderate intensity aerobic or cardio exercise or 1¼ hours of vigorous aerobic or cardio exercise
- 2-3 strength or resistance sessions to build muscle strength.

It can take time to build up to this level of exercise (see pages 12-17 for help on how to increase exercise levels). After treatment, aim to gradually increase exercise to *Australia's Physical Activity and Sedentary Behaviour Guidelines for Adults*,³ which recommend you:

- move more and sit less
- aim to be active on most, preferably all, days of the week
- get a total of 2½ to 5 hours of moderate intensity or 1¼ to 2½ hours of vigorous intensity physical activity (or an equivalent combination of both moderate and vigorous activities) throughout a week
- do 2-3 strength or resistance training sessions a week, involving large muscle groups
- break up long periods of sitting as often as you can.

How exercise can ease common side effects

Cancer treatment causes various physical effects that are different for different people. Exercise has been shown to help ease some of these.

Side effect	Why exercise can help
fatigue	<p>Losing fitness can make fatigue worse, but low intensity exercise can help you stay fit (unless you have severe anaemia, see below). Try to keep active and build your muscles and adjust how hard and often you exercise. Some people find that short, frequent aerobic and cardio sessions are easier; others prefer strength and resistance training, where you can take a rest between sets.</p> <p>► See our <i>Understanding Fatigue and Cancer</i> fact sheet.</p>
anaemia	<p>Low red blood cell and/or haemoglobin count is a common side effect of cancer treatment. Symptoms include unexplained tiredness and fatigue. Combined with good nutrition, exercise has been shown to improve anaemia. For mild or moderate anaemia, try low intensity exercise, with a gradual increase in intensity and/or duration. If anaemia is severe, ask an exercise professional about what exercise to avoid until it improves.</p>
loss of muscle strength/muscle tightness	<p>If muscles aren't being used, they can get smaller and weaker. Lost muscle strength is a side effect of some hormone therapy and steroid treatment. Some treatments also leave muscles tight. Strength and resistance training improves muscle condition.</p>
lymphoedema	<p>Starting exercise early in treatment may reduce the risk of lymphoedema (swelling in a part of the body). A lymphoedema practitioner or exercise professional can develop a tailored exercise plan. After lymph node surgery, follow post-operative instructions for exercise and gradually return to activity.</p> <p>► See our <i>Understanding Lymphoedema</i> fact sheet.</p>
mood changes	<p>Feeling anxious or depressed during and after treatment is common. Exercise helps the brain to produce chemicals (e.g. endorphins, endocannabinoids) that improve your mood.</p>

Side effect	Why exercise can help
heart problems	Radiation therapy to the chest and some types of chemotherapy and targeted therapy drugs may damage the heart muscle, making it less effective at pumping your blood. Some hormone therapy drugs, low physical activity and poor nutrition may also increase the risk of heart problems. Aerobic and cardio exercise can help reduce the risk of long-term heart problems.
loss of bone strength	Cancer and its treatment, particularly hormone and radiation therapy, can have long-term effects on bone strength. Early menopause and reduced levels of physical activity may also cause bones to weaken and break more easily (osteoporosis). Resistance training and exercises where you support your own body weight can help keep your bones strong.
joint pain	Some hormone therapy and cancer treatments can cause joint pain. Exercise can improve muscle size and strength, flexibility and range of motion, and increase your ability to move, which can help protect your joints and reduce pain.
weight gain	Weight gain is a common side effect of many treatments, including some types of hormone therapy, and steroids given to manage the side effects of chemotherapy or immunotherapy. People with cancer may also gain weight due to inactivity. Exercise can help you manage weight gain and assist in weight loss, when necessary.
quality of life	Studies show that physical activity can help improve wellbeing, sexuality, brain fog, sleep issues, anxiety, fatigue, pain and how you feel about yourself in general.

Side effects that need extra care

Some side effects of cancer or treatment need extra care, which means you may have to adjust how hard and long you exercise. Speak to your doctor, physiotherapist or exercise physiologist before you exercise. Check with your health professional first, but most people are able to exercise with a port or PICC line, a chemotherapy pump or a stoma. Ask a nurse, exercise physiologist or physiotherapist to show you how to avoid bumping or disrupting it when moving.

Weak bones – If you have cancer in the bones (bone metastases or bone mets) or myeloma, you may be at risk of a break or fracture. Radiation therapy and hormone therapy may leave bones more fragile. Choose gentle activity such as walking and swimming, and avoid contact sports, running or jumping. Resistance exercise may help by strengthening the muscles around the bones. If you have osteoporosis, consult your doctor and ask for advice from a physiotherapist or accredited exercise physiologist.

Low white cell count (neutropenia) – Some cancers and treatments can weaken your immune system and cause your white blood cell count to drop. This can increase your risk of developing an infection. When your immune system is not working well (called being immunocompromised), it is important to clean any shared exercise equipment before use and avoid public spaces such as gyms, swimming pools and training venues until your white blood cell count returns to a safe level.

Low platelet count (thrombocytopenia) – Platelets stop bleeding in the body by forming clots. When the platelet count drops, you are at increased risk of bruising or bleeding. It is best to avoid contact sports, cycling and high-impact activities (such as jumping or boxing), as these could cause bruising or bleeding if you get knocked or fall over.

Skin irritation – Areas of skin affected by radiation therapy can be extremely sensitive and often uncomfortable. Choose activities and clothing to minimise fabric rubbing on affected areas. Chlorine can irritate the skin, so avoid the pool if you have a rash or your skin is red.

Surgical wound – You will need to wait for the wound to heal before starting any exercise, so follow your surgeon's or doctor's advice about when it is safe to begin. If you have post-surgery stiffness and pain, you may need an assessment from an oncology physiotherapist or other exercise professional. They can suggest specific exercises to reduce stiffness and pain in the affected area. Pain, weakness, stiffness and reduced movement are common after surgery, but they usually improve with time.

Poor balance and coordination – Surgery or cancer treatment may affect balance and coordination. This can make you unsteady and lead to a fall. Choose exercises to improve balance and muscle strength, or exercise sitting down. If your balance or coordination has been affected, avoid exercise such as riding a bike outside or using a treadmill, and avoid lifting free weights without a training partner.

Peripheral neuropathy – Some chemotherapy drugs damage nerves, causing pins and needles and numbness in the hands and feet (peripheral neuropathy). This means you could injure yourself without noticing. If you can't feel your feet, you're more likely to lose balance or fall, so walk on even surfaces. Ask an exercise professional how to lift weights safely. Some people may find exercise machines safer to use than free weights.

Heart damage – Some chemotherapy drugs and other treatments can cause damage to the heart (cardiotoxicity). In this case you will need specialised exercise advice before taking on exercise.



Getting started

Before you start exercise, it's important to talk to your doctor or oncologist about the exercise that's best for you, how much to do and any precautions you should take. Ideally, your doctor can refer you to an exercise physiologist or physiotherapist for a health and fitness assessment and exercise plan designed for you.

The amount of exercise outlined on page 7 can feel overwhelming. Aim to be as physically active as your abilities allow and adapt your exercise program to suit the type and stage of cancer. Some days may be harder than others, but even a few minutes of light exercise is better than none. It's usually best to start physical activity slowly and build up gradually, instead of doing too much and exhausting yourself.

Seeing an exercise professional

Personal trainers, fitness instructors and exercise scientists aren't trained to work with people affected by cancer. The appropriate allied health professionals to design an exercise program for people with cancer are:

Exercise physiologists – Also called accredited exercise physiologists (AEPs), these allied health professionals have completed at least a 4-year university degree. They use exercise as medicine to help with chronic disease management and overall wellbeing.

Physiotherapists – These allied health professionals have completed at least a 4-year university degree. They focus on physical rehabilitation, and prevention and treatment of injuries using a variety of techniques, including exercise, massage and joint manipulation.

Making an exercise program

An exercise professional can help develop a program based on what you can do, and any health issues, physical problems, disease impacts or treatment side effects related to the type and stage of cancer you have. You may go to one-on-one or group sessions, or your exercise professional may develop a program for you to follow at home. They will show you how to exercise safely and monitor the intensity of your exercise (e.g. by measuring your heart rate or how difficult it feels to do). If you can't see an exercise professional, guides in this booklet may help.

How to find an exercise professional

There may be an exercise physiologist or a physiotherapist at your cancer treatment centre who you can see. If not, your general practitioner (GP) can refer you to an exercise physiologist or a physiotherapist as part of a chronic disease management plan (which means you may be eligible for a Medicare rebate for up to 5 visits per calendar year).

In most cases, you will still have to pay to see an exercise professional. Check with your health insurer if they cover seeing an exercise physiologist or a physiotherapist. The Department of Veterans' Affairs may also be able to financially assist some people.

When you look for an exercise professional, ask to see someone with experience working with people who have cancer.

Search for an accredited exercise physiologist (AEP) by name, location or specialty (i.e. cancer) at Exercise & Sports Science Australia's website, essa.org.au/find-aep. Search for a physiotherapist on the Australian Physiotherapy Association's website, choose.physio/findaphysio.

To find a group exercise program, ask at your cancer centre, ask your GP for a referral or call Cancer Council 13 11 20.

Tips for starting an exercise program

Find an exercise program that you enjoy, and that matches your current fitness level. Ask your health professional what activity is best for you and your ability.

Begin at home



Home-based exercise can be the easiest to start with. You can try some strength or resistance training exercises at home (see pages 21–34).

Try outdoor activities



Being active outdoors is a good way to add physical activity and exercise into your daily routine. You could try walking, riding a bike or swimming.

Join a group exercise program



Many gyms and fitness centres run group exercise programs. When joining, let your gym know that you have or are recovering from cancer, and ask if they have someone who can check whether the exercise program is right for you. Ideally, an exercise physiologist or physiotherapist will assess your health and fitness and tailor a program to your needs. Your cancer centre may offer classes designed for people with cancer.

Do incidental activity



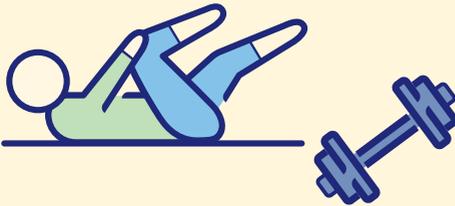
Move more throughout the day. You could walk or ride to the shop or hospital, or take the stairs. The important thing is to try and be active most days of the week.

Choose what to wear



You don't need to buy expensive equipment or special clothing to do exercise, but the correct shoes are needed for walking or jogging. Visit a reputable shoe shop for suggestions to suit you and your health concerns. You may like loose, comfortable clothes, such as shorts and a T-shirt, when exercising. Or you may find close-fitting or supportive tights and a top are best for some exercise.

Mix things up



Try to include aerobic and cardio exercises as well as strength and resistance training in your weekly exercise program. Doing a combination of different types of exercise helps to improve more areas of your health and fitness.

Find equipment



Activity monitors, hand weights, heart rate monitors and home-gym systems can be useful but aren't necessary. You can add exercise equipment into your program at little to no expense. For example, a step is a great aerobic and resistance training device. A backpack filled with a bag of sand makes for a good piece of resistance training equipment.

Planning an exercise session

There are 3 general parts to an exercise session.

1. Warm-up

The aim of a warm-up is to increase blood flow to warm your muscles or gradually raise your heart and breathing rates. This prepares your body for further activity without a sudden elevation. A warm-up can include 5–10 minutes of low intensity aerobic and cardio exercise and light stretching. Walking or stepping up and down on a stair are good warm-ups. If approved by your doctor or exercise professional, you can use light weights to warm up before strength training.

2. Training

This is the part of an exercise session when the work is done. It could include activities from one or more types of exercises:

- aerobic and cardio exercises (see page 20)
- strength and resistance training (see pages 21–34)
- flexibility exercises (see pages 35–41)
- balance exercises (see pages 42–43). People with weakened bones or peripheral neuropathy can improve stability with balance exercises
- pelvic floor exercises (see pages 44–46). Some people may need to exercise their pelvic floor muscles – especially if they have leaking or incontinence issues.

3. Cool-down

The cool-down allows your heart rate and blood pressure to gently return to normal. It also helps your body and muscles recover and reduces soreness after exercise. After aerobic or cardio exercise, cool down with 5–10 minutes of relaxed, low intensity activity such as slow walking or cycling. After strength or resistance training, you can cool down with light stretching.

Ways to stay motivated



Start an exercise diary

Record each day's physical activity and exercise in a paper or digital diary or calendar. List the type of activity, and how long and hard you exercised.



Go online

Use free websites such as myfitnesspal.com to record your exercise sessions. You can also use this website to record how much you're eating and exercising.



Use fitness apps

Free smartphone apps such as Runkeeper, MyFitnessPal or STRAVA track your movement while you are exercising if you wear a smartwatch or keep your smartphone on you, or you can record your activity later. You can download them from the App Store (Apple) or Google Play (Android).



Wear a gadget

Also called wearables, devices such as those from Fitbit and Garmin are worn like a watch. They can track your steps or minutes of activity and transfer the data to your smartphone or computer. Some also monitor your heart rate and take electrocardiogram (ECG) measures.



Have options for bad weather

A combination of indoor and outdoor exercise options will mean you can keep exercising even if the weather changes or if it's after dark.



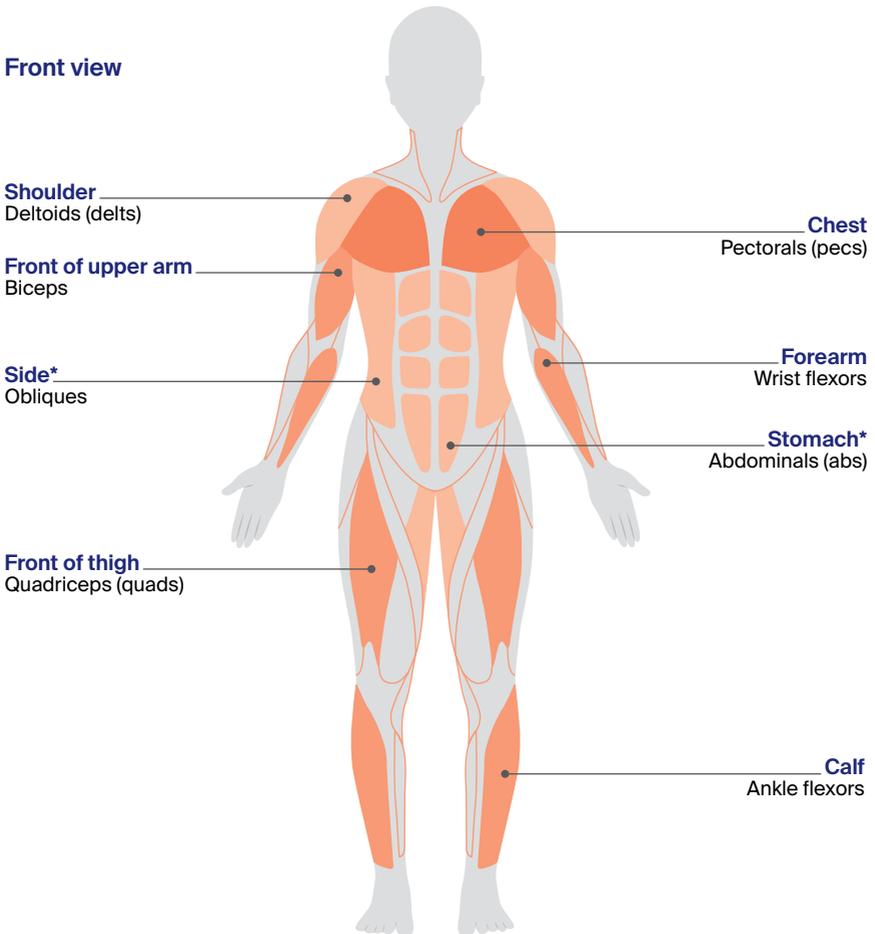
Buddy up with someone

Exercise with family and friends to keep each other motivated. You can even share an online class together.

Muscle groups

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

Front view



*Sometimes called core muscles

usually targeting specific muscle groups. The exercises in this booklet cover a range of muscle groups. An exercise professional can help you plan a weekly program that covers all the muscle groups and focuses on any areas that may need particular care or attention.

Back view

Upper back
Trapezius (traps)

Middle back
Latissimus dorsi (lats)

Lower back
Erector spinae

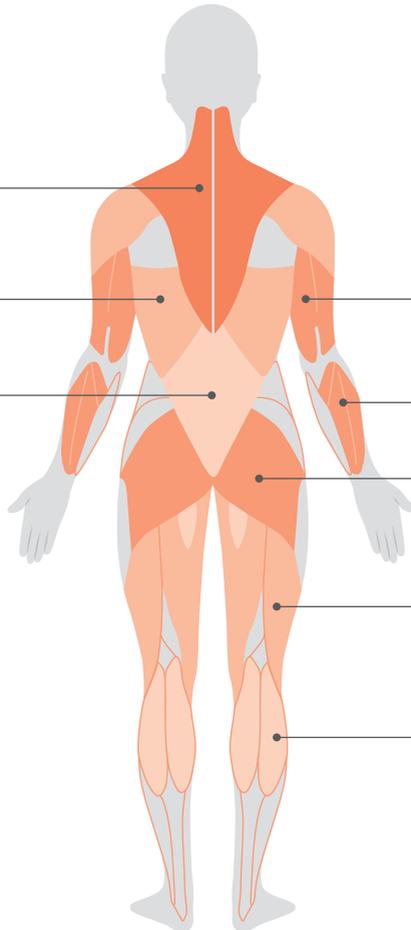
Back of upper arm
Triceps

Back of forearm
Wrist extensors

Buttocks
Gluteals (glutes)

Back of thigh
Hamstrings

Calf
Ankle extensors



Aerobic and cardio exercise

Aerobic exercise uses large muscle groups repetitively over an extended period of time and causes your heart and breathing rates to rise during the activity. This is sometimes called cardiovascular (cardio) exercise. This type of exercise may improve side effects, mood and energy levels.

How much exercise should I do?

Exercise at a level you are comfortable with, but try to vary how long (duration) and how hard (intensity) you exercise. You can start with a small amount and increase it gradually as you feel able. See page 7 for current recommendations for aerobic and cardio exercise.

What is exercise intensity?

How hard your body is working during physical activity, particularly aerobic exercise, is known as exercise intensity. It's usually described as low, moderate or vigorous. A simple way to work out the intensity of aerobic and cardio exercise is the talk test.

Low intensity exercise – You can talk or sing at the same time. An example is gentle walking, light gardening or slow cycling.

Moderate intensity exercise – Your heart will beat faster, you'll breathe harder than normal and you may start sweating. You'll be able to speak but only in short sentences or have a slower than normal conversation. Examples include brisk or fast walking, water aerobics, dancing, tennis (doubles), cycling and swimming.

Vigorous intensity exercise – You'll be sweating, puffing and your heart will be beating rapidly. You won't be able to talk without pausing. Examples include aerobic/cardio classes, jogging, tennis (singles), and organised sports such as football, soccer or netball.

Strength and resistance training

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

The weights or resistance that can be used include:

- **your own body weight** – you use body weight for push-ups, pull-ups from the floor or against a wall, and squats, yoga and matwork Pilates
- **free weights** – this includes dumbbells and barbells, hand weights and weighted bags which you hold, along with wrist and ankle weights which you attach with straps
- **weights or resistance machines** – these are devices that have adjustable seats or handles attached to either weights or hydraulics, weight stacks, levers and pulleys to provide resistance
- **elastic resistance bands** – sometimes called TheraBands or stretch bands, they are like giant rubber bands that are hard to stretch; they come in different colours according to the level of resistance.

An exercise professional can suggest what weights or bands you should use. You can buy free weights and resistance bands at sporting goods stores, some major retailers or online. Hand weights can be made from tin cans or plastic bottles filled with water or sand. Use scales to check the weights are of equal value. Use a backpack that has a handle to hold, and vary the resistance by adding bags of sand or water bottles.



This chapter includes simple strength and resistance exercises to try with an exercise professional or at home. Watch videos of these and other exercises at cancer council.com.au/exercise.

How much training should I do?

Try to do strength and resistance training at least 2-3 times a week, with a rest day between each session. Strength and resistance training exercise sessions include several different parts:

- **repetition (reps)** – doing an exercise from the start position, through the movement, and back to the start (e.g. 10 squats is 10 reps)
- **set** – a series of repetitions (e.g. doing 10 squats, 2 times, is 2 sets)
- **rest** – the time between each set.

During each training session, aim for 6-10 exercises that target the major muscle groups of the arms, legs and torso (see pages 23-34). An exercise professional can design a program, or as a guide, you can try:

- 6-10 different types of exercises (shown on the next pages)
- 4-10, 6-12 or 8-12 repetitions of each exercise per set
- 1-4 sets or rounds of each exercise per session
- 1-2 minutes of rest between sets.

A program should challenge your muscles without straining them. This is a good way to decide how many repetitions you do in a set when you first start exercising.

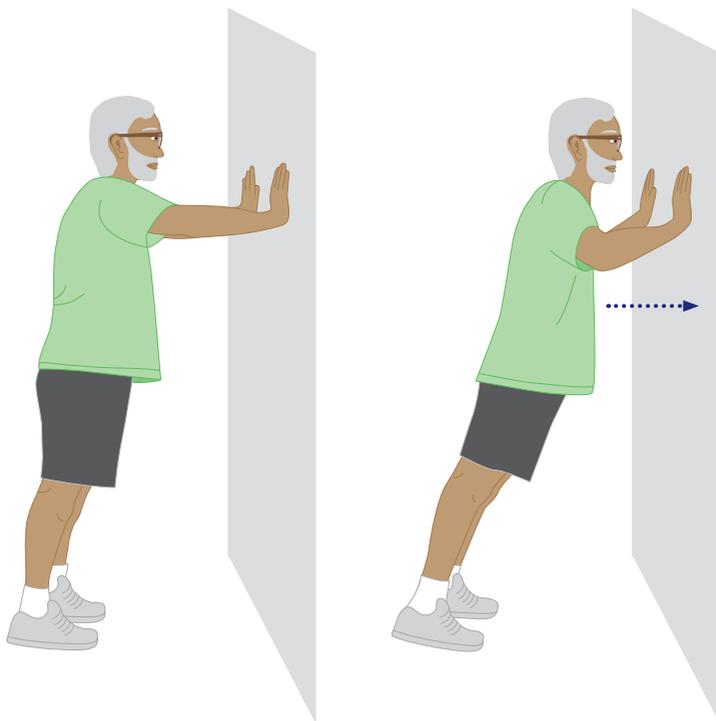
To help work out the repetitions or amount of resistance, aim to feel like you have 2-3 repetitions left at the end of a set. If you feel like you could do another 8-10 repetitions, then the resistance is too low. Once you become comfortable with a program, you can increase your strength by making it harder – but just make small increases at a time.

You may feel some soreness after exercising. This is normal at the end of a set, or 1 or 2 days after you have exercised. But any soreness should not be excessive. If you are quite sore or the pain continues for more than 2 days, then the session or resistance was too hard.

Standing wall push-up

Muscle groups: 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, by bending your arms at the elbow. Keep your feet where they are.
3. Once your nose is close to the wall, breathe out as you slowly push away, against your body weight, and return to the starting position. Repeat.



► If this is too easy, move your feet back a bit or try a modified knee push-up (page 24).

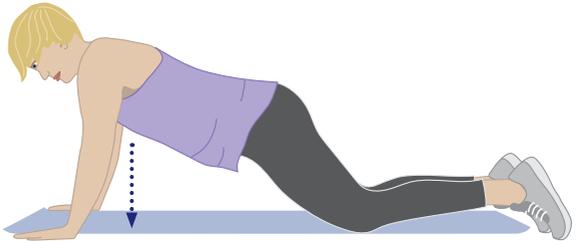
Modified knee push-up

Muscle groups: Chest, shoulders and arms

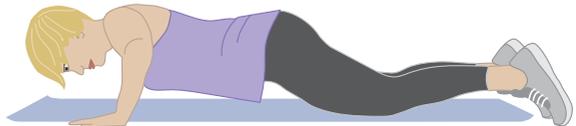
1. Start with your knees and hands on the floor and your arms extended. Keep your back and bottom as straight as possible, and keep your head in line with your spine.



2. Lower your torso slowly, by bending your arms at the elbow. Aim to keep your chest moving straight towards the floor (not forwards or backwards). Only go as far down as you feel you can.



3. Breathe out as you push back up to the starting position, and try not to fully straighten your arms and lock your elbows at the top. Repeat.



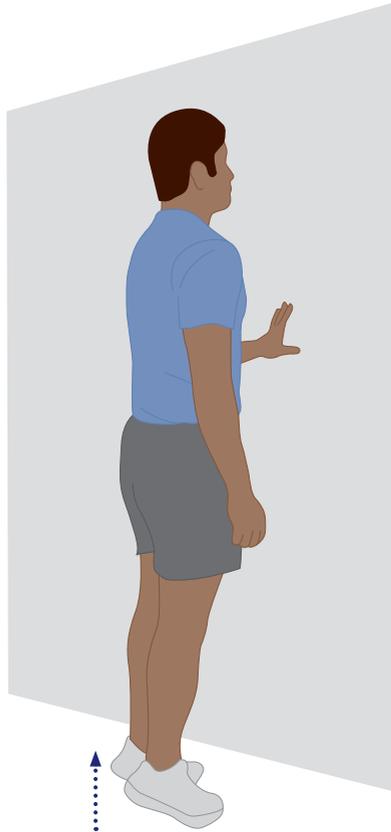
► If you feel any pain in your back doing this exercise, bring your hands closer to your body. If this still feels hard, do the wall push-up (page 23) until you build more strength.

Calf raise

Muscle group: Calves

Equipment: Wall, step, hand weights (optional)

1. Stand upright, with your hand resting against a wall or on a stable chair as a support (if necessary).
2. Breathe out as you lift your heels off the ground, keeping your knees and body straight.
3. Hold the position for a moment. Return to the starting position. Repeat.



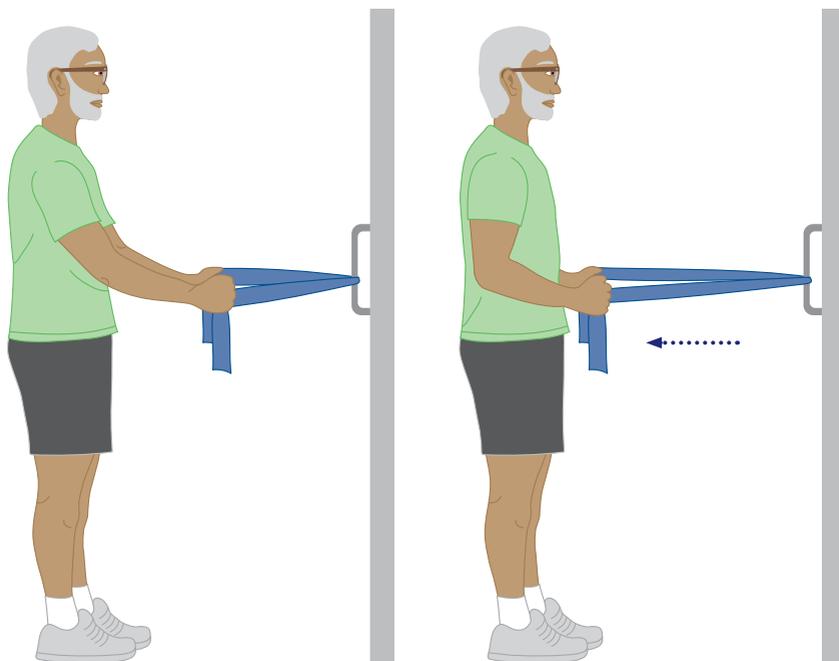
-
- ▶ Don't try this exercise if you have balance issues or tend to feel dizzy or light-headed.
 - ▶ As you improve, increase the difficulty by standing with the balls of your feet on a step (so that your heels hang over the edge), holding a hand rail. You can also try the exercise as pictured holding hand weights, or doing one leg at a time.
-

Standing row

Muscle groups: Shoulders, back, and back of upper arms

Equipment: Elastic resistance band

1. Attach the resistance band to a fixed point such as a railing, pole or a closed door handle, ensuring it's well secured. Stand with your feet shoulder width apart and your arms outstretched at waist height.
2. Breathe out as you pull the resistance band towards you, keeping your elbows and hands at waist height. Make sure your back doesn't move, and look straight ahead. Keep neck and shoulders relaxed to avoid your shoulders lifting up.
3. Slowly and with control return to the starting position. Repeat.

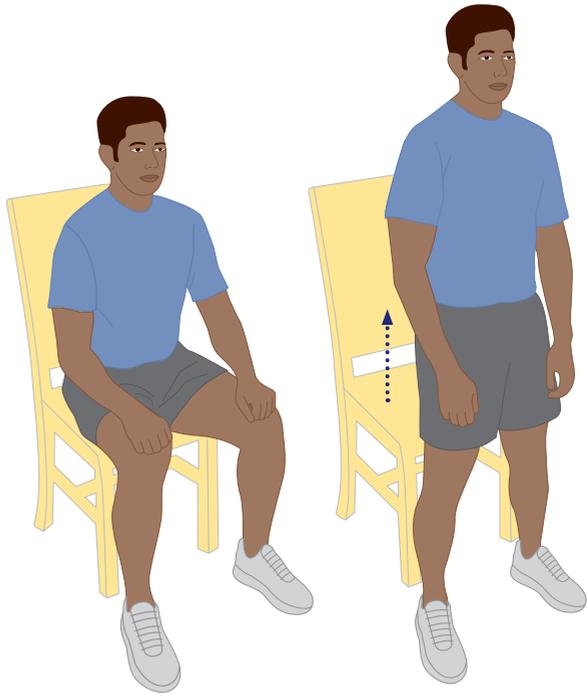


Chair rise

Muscle groups: Front of thighs and buttocks

Equipment: Chair

1. Sit towards the middle or slightly to the front of a chair with your hands on your knees.
2. Breathe out as you stand up, using your hands on your knees for assistance if you need to. Keep your back tall and straight as you stand up. Keep your head up and look straight ahead. Try to stand up in one movement, without rocking forward and back to help you.
3. Slowly sit back down. Repeat.



-
- ▶ Increase the difficulty by crossing your arms over your chest, or holding hand weights. Or try not sitting down, but just touching the seat lightly before standing up again.
 - ▶ If you are doing this exercise for the first time and feel off balance, please do this with an exercise professional, carer or friend.
-

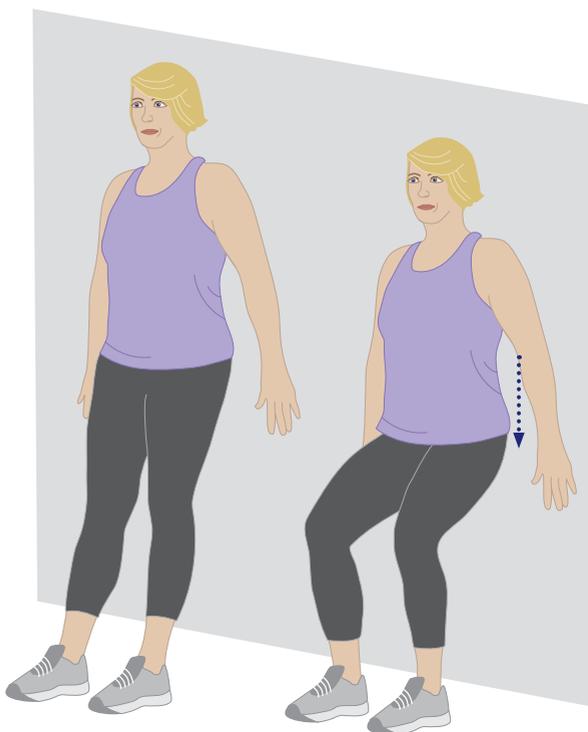
Wall squat

Muscle groups: Front of thighs and buttocks

1. Stand about 30 cm in front of a wall with your feet shoulder width apart. Slightly bend your knees and lean back onto the wall, putting your arms and palms against it. Tilt your pelvis so your back is flat against the wall and tuck your chin in a little.

2. Keeping your body against the wall, slowly slide down (as if you're going 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 back up the wall again until you are back to the starting position. Repeat.



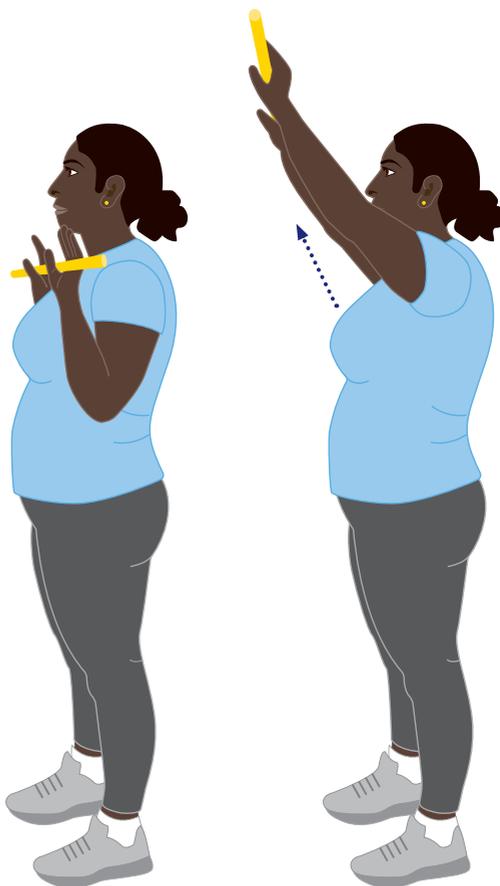
► Increase the difficulty by sliding further down, but stop before your knees go over your toes (there should be no more than a 90-degree angle between hip and knee).

Shoulder press

Muscle group: Shoulders

Equipment: Gym stick, barbell, pole, broomstick, tin cans 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. Breathe out as you push the bar up until it is above and slightly in front of your head. Keep your back and neck straight and don't lift your shoulders.
3. Pause, then lower the bar back to the starting position. Repeat.



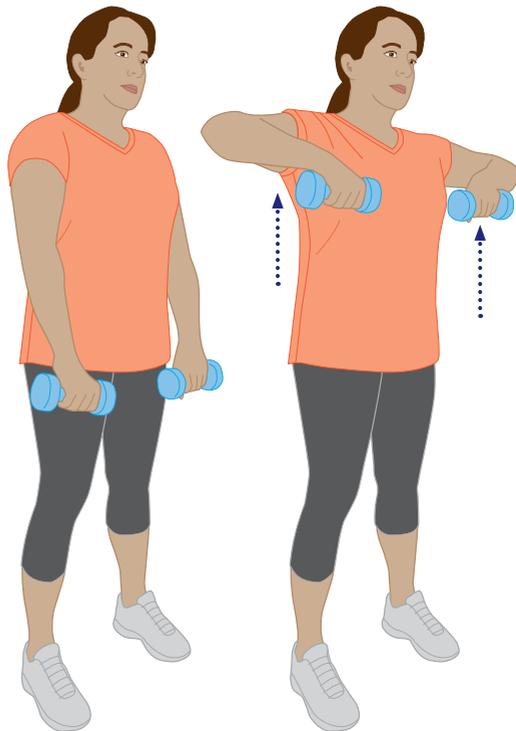
► Increase the difficulty by adding weight to the bar or increasing your hand weights.

Upright row

Muscle groups: Shoulders and upper back

Equipment: Hand weights, tin cans

1. Stand with your arms by your side and your feet shoulder width apart. Hold the hand weights with your palms facing backwards. Tighten the tummy muscles (abdominals).
2. Breathe out as you bend your arms and raise the hand weights slowly up to shoulder height. Avoid jerking the weights when lifting them up. Keep your head and neck aligned, and look straight ahead. Avoid lifting your shoulders to your ears. You should feel the muscles in your shoulders work, not the ones in your neck.
3. Pause, then lower the hand weights back to the starting position. Repeat.



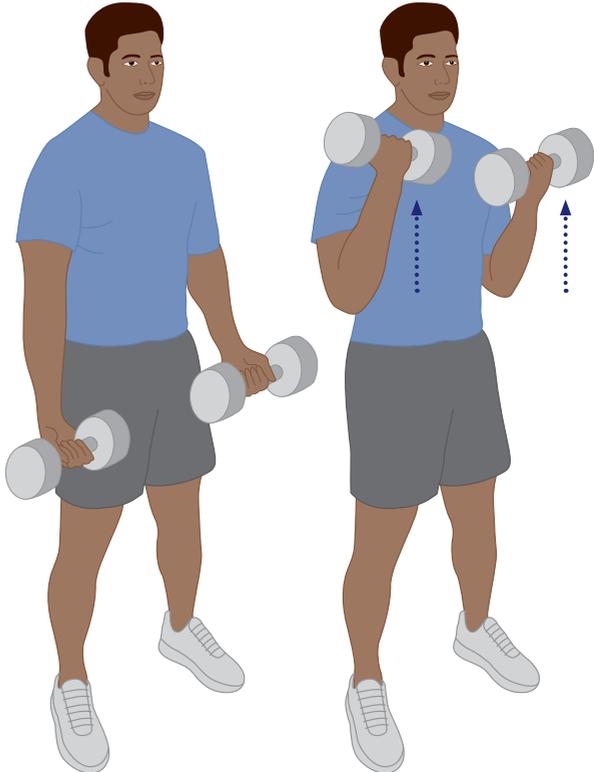
► Use lighter weights to start with and increase as your strength and fitness improve.

Biceps curl

Muscle group: Front of upper arms

Equipment: Hand weights, gym stick, barbell or tin cans

1. Stand with your arms by your side and feet hip width apart. Hold the hand weights with your palms pointing away from you.
2. Breathe out as you bend your elbows to lift the weights to shoulder height. Keep your elbows tucked in at the sides. Try not to move your shoulders and make sure your body does not sway.
3. Slowly return the hand weights almost to the starting position without fully straightening your elbows – keep them slightly bent. Repeat.

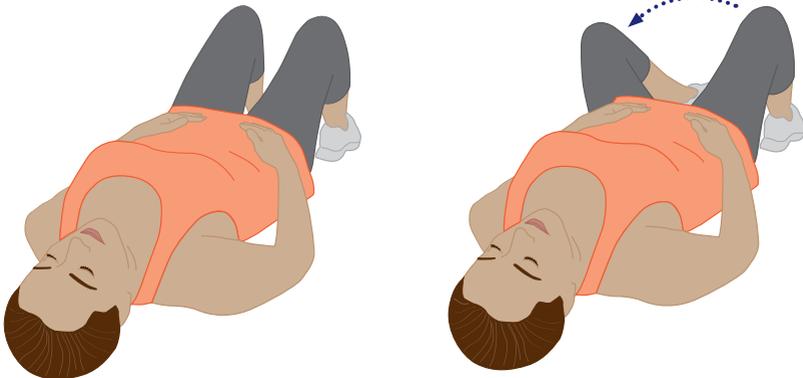


► Use lighter weights to start with and increase as your strength and fitness improve.

Clamshell

Muscle groups: Stomach and side (core)

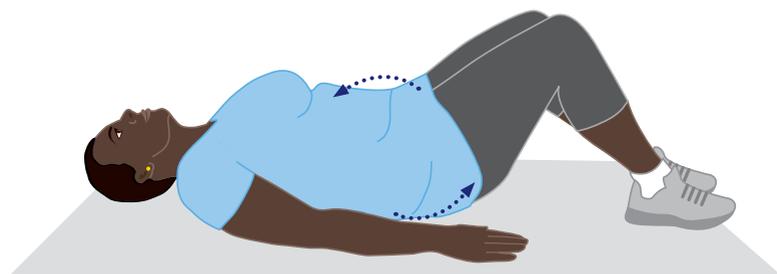
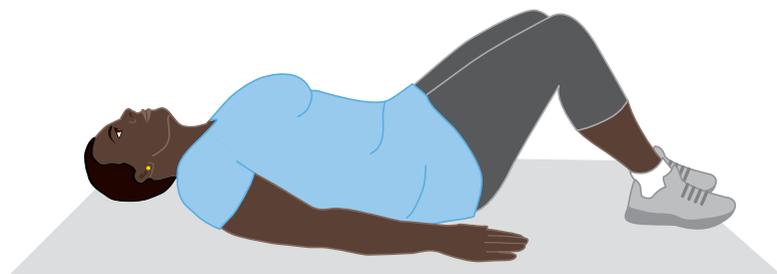
- 1.** Lie on your back with your knees bent and your feet flat on the floor about hip width apart. Place your hands on your lower tummy (abdomen) and lift your pelvic floor muscles (see pages 44–46). Keep breathing normally.
- 2.** Slowly lower one knee a little bit out to the side, without moving the hips. If your hips tilt to one side, you have lowered your knee too far. Hold for 15–30 seconds.
- 3.** Slowly return to the starting position. Repeat with the other knee.



Pelvic tilt

Muscle groups: Stomach and side (core)

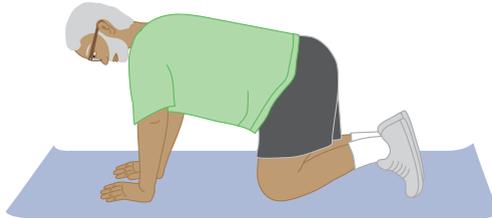
1. Lie on your back with your knees bent and feet flat on the floor about hip width apart.
2. Flatten your back by tightening the muscles in your abdomen and buttocks. This will tilt your pelvis up slightly. Hold for several seconds.
3. Fully relax the muscles and rest for a few seconds. Repeat.



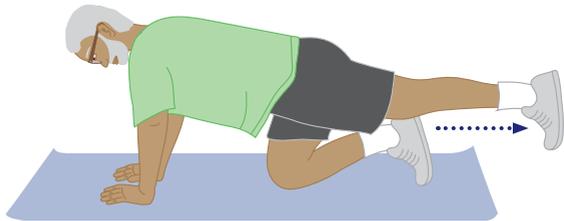
Bird-dog

Muscle groups: Stomach and side (core)

1. Start on all fours, with legs hip width apart, knees directly under hips, hands directly under shoulders, and back and head in a straight line. Keep the elbows slightly bent. Gently lift your pelvic floor and lower abdomen to support your lower back.



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



3. Keep breathing normally. Slowly return to all fours. Repeat on the other side.



-
- ▶ If you find it hard to keep your balance, leave both hands on the floor and just extend one leg at a time. You can also do the bird-dog lying over a fitball, which can be a good alternative for people with bad knees who find it difficult to kneel.
 - ▶ Increase the duration of each hold by a few seconds each week. To make it more challenging, try holding a light hand weight with your outstretched arm.
-

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 age, but cancer treatments also contribute to this. Regular stretching helps to improve stiffness and flexibility.

This chapter has simple flexibility exercises you can do at home. You could also join an exercise class that focuses on stretching, such as an easy yoga class. Check with your health professional before doing any exercise – these exercises suit most people, but may not be safe for you.

How much exercise should I do?

Try to do flexibility exercises 3–4 times a week. They can be done the same day as other exercise (e.g. directly after), or on their own. Include stretches for arms, legs and torso (core). In each session, you might do 1–3 sets of 4–6 different stretches. Any stretching is better than none.



Tips for stretching

- You can warm up your muscles first with some aerobic exercise.
- After aerobic exercise, aim to stretch during the cool-down phase.
- Keep breathing normally. Do not hold your breath.
- Maintain good posture, and stretch slowly and steadily. Do not bounce.
- Stretch to the point of mild discomfort, but never keep pushing the stretch if it hurts.

Shoulder stretch

Muscle group: Shoulders

1. Stand with your feet about hip width apart and arms relaxed by your sides.
2. Raise one arm to shoulder height and slowly and gently pull it across your chest and wrap your other arm underneath to support it. Do not stretch more than feels comfortable. Keep the elbow of your straight arm just below shoulder level.
3. Hold for 15–30 seconds, before returning to the starting position. Switch arms and repeat.

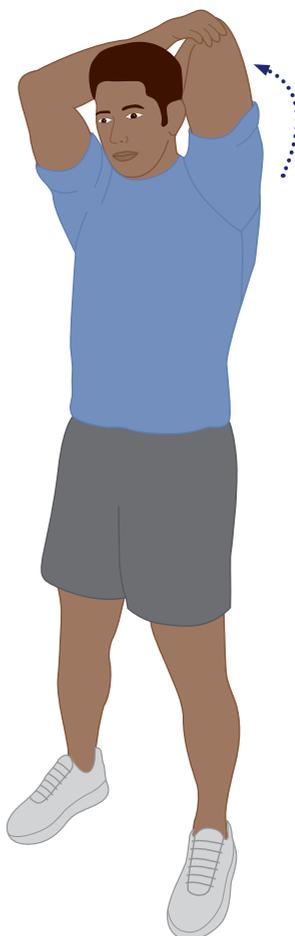


-
- ▶ Keep the shoulder that is being stretched relaxed and try to avoid it moving up towards your ear. If this starts to happen, you may be stretching too far.
-

Triceps stretch

Muscle group: Back of arms

1. Stand with your feet about hip width apart and arms relaxed by your sides.
2. Lift one arm to shoulder height and bend your elbow with your forearm down your back.
3. Using the elbow as a lever, use your other arm to gently push the arm down your back. Hold for 15–30 seconds.
4. Return to the starting position. Switch arms and repeat.

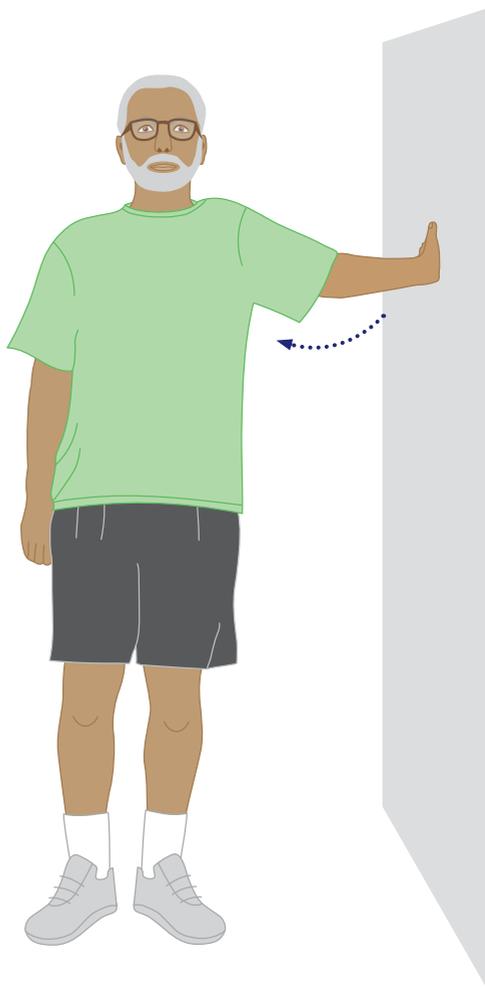


► Try not to bend your head forward too far and keep the stretched arm close to your ear.

Pectoral and biceps stretch

Muscle groups: Chest, forearm and upper arms

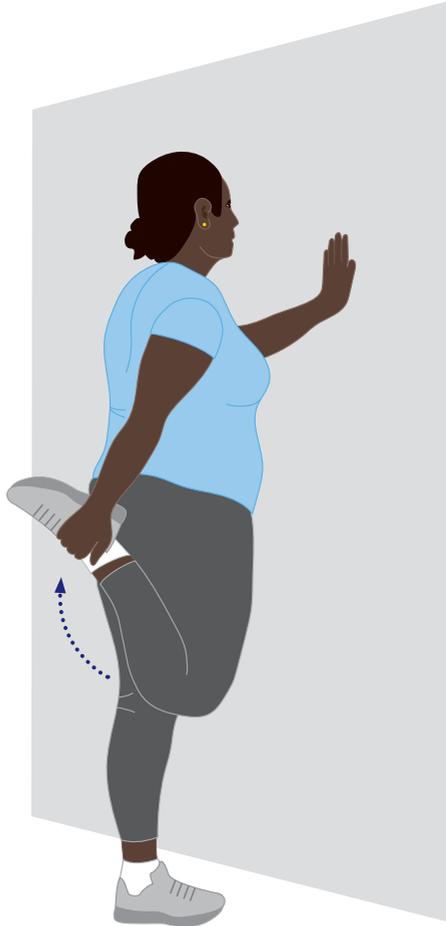
1. Stand near a wall. Raise one arm out to the side so it is parallel to the floor, and put your hand against the wall with your fingers pointing away from you.
2. Partially turn your body away from the wall and arm that is against the wall. Hold the stretch for 15–30 seconds.
3. Return to the starting position. Switch arms and repeat.



Quadriceps stretch

Muscle group: Front of thighs

1. Stand near a wall to use as a support.
2. Lift your foot behind you and hold in front of the ankle. Gently pull the leg towards your buttocks. Make sure you keep your torso straight. Hold for 15–30 seconds.
3. Return to the starting position. Switch legs and repeat.

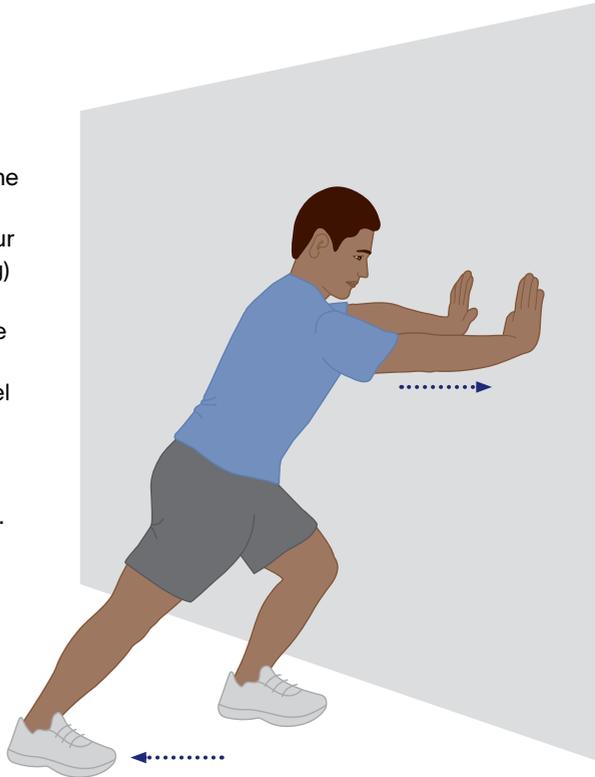


► You can wrap a towel around your ankle to hold if you can't reach your ankle easily.

Calf stretch

Muscle group: Calves

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. Switch legs and repeat.



Hamstrings stretch

Muscle group: Back of thighs

Equipment: Chair

1. Sit on a chair with one leg bent at the knee and the other leg straight, toes pointing upwards.
2. Lean forward from the hips, pushing your chest forward towards your knee. Keep your back straight. Hold for 15–30 seconds.
3. Switch legs and repeat.



-
- For more of a stretch, stand and put one foot on a step (about 30 cm high), toes pointing up. You may want to do this near a wall in case you need to steady yourself.
-

Balance exercises

Balance exercises are designed to help you to be stable while standing, walking or doing other activity. They may be important if you have been inactive for some time – like when you’ve been in hospital or in bed for a while. Balance exercises can help people with certain types of cancer that affect their stability, such as brain or other head cancers, or that affect a leg or leg strength. People with peripheral neuropathy or weak bones may also find balance exercises helpful.

Some balance exercises are simple and can be done by yourself, others may need someone to help you. You could also use a wall or a stable chair to provide support if needed. If you have a balance issue, a health professional can design a program for you. Take care when beginning and have someone with you if you are not doing exercises with an exercise physiologist or physiotherapist.

Some simple balance exercises

One-leg lift

- Stand with feet hip distance apart.
- Lift your arms to shoulder height and extend them out to the sides.
- Lift your left foot off the floor and bend your knee to bring your heel towards your bottom.
- Hold for up to 30 seconds. Repeat on the opposite side.
- Do each side 3 times.

Tightrope walk

- Use a line in floorboards or tiles, a line of tape or any straight line.
- Like walking a tightrope, extend your arms out to the sides and walk slowly, being careful to keep your feet on the line at all times.
- Walk from heel to toe, counting at least 5 seconds before each step, until you reach the end.

One-leg balance

Muscle groups: Legs, stomach, side and back

Equipment: Chair (optional)

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. Switch to the other leg and repeat.



-
- ▶ 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. Aim to increase the duration by a few seconds each week.
-

Pelvic floor exercises

Your pelvic floor muscles stretch from the bottom of your pelvis and support your bowel, bladder, and uterus for females. A strong pelvic floor helps control urination (peeing) and bowel movements, sexual function, and stability of the abdomen (core) and spine. Your pelvic floor can become weak due to age, childbirth, constipation, obesity, coughing a lot, heavy lifting, abdominal or pelvic surgery. Chemotherapy and hormone therapy can also impact the pelvic floor.

Seeing a pelvic floor expert

Continence nurses and pelvic floor physiotherapists can assess how your pelvic floor is working and tailor an exercise program to your needs. Ask your doctor or specialist for a referral to a continence nurse or physiotherapist before doing pelvic floor exercises if you:

- have had recent pelvic or abdominal surgery
- have problems with urine or faeces (poo) 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 or pain during sex.

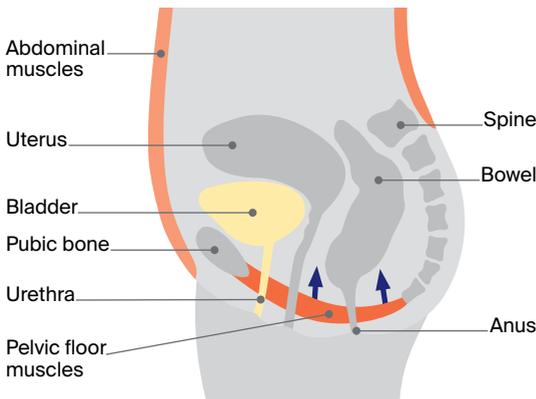
For suitable exercises, visit pelvicfloorfirst.org.au. To find a continence nurse or pelvic floor physiotherapist, call the National Continence Helpline on 1800 33 00 66 or visit continence.org.au. You can search for a physiotherapist on the Australian Physiotherapy Association's website, choose choose.physio/findaphysio.

How to exercise your pelvic floor muscles – female

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.

Finding your pelvic floor muscles

When you try to stop your urine stream for a couple of seconds while you are peeing, you use your pelvic floor muscles. Another way is to feel the muscles you use when you imagine stopping the flow of urine and holding in wind.



1. Start by relaxing all of your pelvic floor (including the muscles around the bottom) and your tummy (abdominal) muscles.
2. Gently lift your pelvic floor muscles up and hold while you continue breathing normally. Keep your upper abdominal muscles relaxed. Try to hold the contraction for up to 10 seconds (while breathing). Then relax your muscles slowly.
3. Repeat the exercise up to 10 times. Rest and completely relax your pelvic floor muscles for 10–20 seconds between each set.

Safety tips

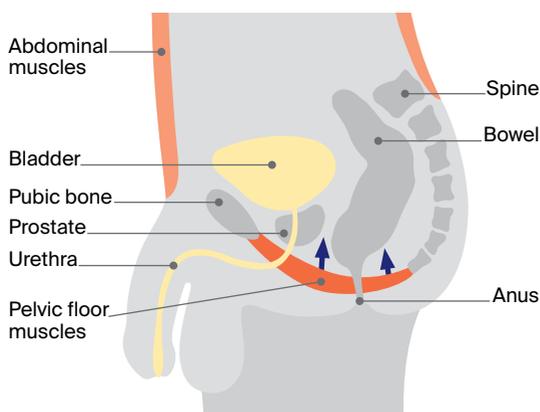
- Do not hold your breath.
 - Do not tighten your tummy above the belly button. Focus on pulling up and holding on to urine and wind.
 - Do not try too hard. You may end up contracting other nearby muscles. Try changing positions if you can't feel the pelvic floor muscles lifting and squeezing.
-

How to exercise your pelvic floor muscles – male

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.

Finding your pelvic floor muscles

Imagine resting your scrotum on a plate, then contract the muscles that lift your scrotum off the plate. Some cues to help turn on the pelvic floor muscles include trying to lift the scrotum up towards the tummy, trying to bring the base of the penis in towards the lower tummy and trying to stop as you're doing a pee.



1. Start by relaxing all of your pelvic floor (including muscles around the bottom) and your tummy (abdominal) muscles.
2. Gently lift your pelvic floor muscles up and hold while you continue breathing normally. Keep your upper abdominal muscles relaxed. Try to hold the contraction for up to 10 seconds (while breathing). Then relax your muscles slowly.
3. Repeat the exercise up to 10 times. Rest and completely relax your pelvic floor muscles for 10–20 seconds between each set.

Safety tips

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

Support and information

Useful websites

You can find many useful resources online, but not all websites are reliable. These websites are good sources of support and information.

Cancer Council Australia	cancer.org.au
Cancer Council Online Community	cancercouncil.com.au/OC
Cancer Council podcasts	cancercouncil.com.au/podcasts
Guides to Best Cancer Care	cancer.org.au/cancercareguides
Australian physical activity guidelines	health.gov.au/topics/physical-activity-and-exercise
Australian Physiotherapy Association	choose.physio
Cancer Australia	canceraustralia.gov.au
Carer Gateway	carergateway.gov.au
Carers Australia	carersaustralia.com.au
Department of Health and Aged Care	health.gov.au
Exercise & Sports Science Australia	essa.org.au
Exercise is Medicine Australia	exerciseismedicine.org.au
Exercise Right	exerciseright.com.au
Healthdirect Australia	healthdirect.gov.au
Services Australia (Centrelink, Medicare)	servicesaustralia.gov.au

Support from Cancer Council

Cancer Council offers a range of services to support people affected by cancer, their families and friends. Services may vary by location.

Cancer Council 13 11 20



Our experienced health professionals will answer any questions you have about your situation and link you to local services (see inside back cover).

Information resources



Cancer Council produces booklets and fact sheets on more than 25 types of cancer, as well as treatments, emotional and practical issues, and recovery. Call 13 11 20 or visit your local Cancer Council website.

Legal and financial support



If you need advice on legal or financial issues, we can refer you to qualified professionals. These services are free for people who can't afford to pay. Financial assistance may also be available. Call Cancer Council 13 11 20 to ask if you are eligible.

Practical help



Cancer Council can help you find services or offer guidance to manage the practical impacts of cancer. This may include helping you access accommodation and transport services.

Peer support services



You might find it helpful to share your thoughts and experiences with other people affected by cancer. Cancer Council can link you with individuals or support groups by phone, in person, or online. Call 13 11 20 or visit cancercouncil.com.au/OC.

Question checklist

This checklist includes the kinds of questions you may want to ask your doctor or exercise professional about exercise during or after cancer and treatment.

Questions for your health team

- Is there any reason why I could not exercise during my treatment?
 - Are there any precautions I should take or types of exercise I should avoid?
 - What precautions should I take if I have a port, PICC line, chemotherapy pump or stoma?
 - 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?
 - Can you help me to get a chronic disease management plan, and a referral to an exercise physiologist or physiotherapist?
-

Questions for your exercise professionals

- What are your qualifications? Are you an ESSA accredited exercise physiologist or an APC accredited physiotherapist?
 - Have you completed 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?
 - I would like to start slowly and build up this program, is that okay?
 - How will I know that I am doing the exercises correctly?
 - What should I do if I feel pain when exercising?
 - 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 am I likely to need?
 - How can I exercise safely to avoid COVID-19? Do you have HEPA filters in your gym or a fresh air option? Can I use a mask? Do you have a carbon dioxide monitor to show me how well ventilated your gym is?
-

Glossary

abdomen

The part of the body between the chest and hips, which contains the stomach, spleen, pancreas, liver, gallbladder, bowel, bladder and kidneys. Also called the belly or tummy.

abdominals (abs)

The muscles that sit on top of the abdomen from the bottom of the ribs to the pelvis.

aerobic

Exercises that cause heart and breathing rates to increase. Also called cardio.

anaemia

A reduction in the number or quality of red blood cells in the body.

biceps

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

chemotherapy

A cancer treatment that uses drugs to kill cancer cells or slow their growth.

continence

Ability to control urination and bowel movements. See also incontinence.

core muscles

Muscles in the stomach and lower back that stabilise the body. Also called trunk muscles.

exercise physiologist

A university-trained health professional who prescribes exercise for people with medical conditions to improve overall health and fitness, strength and energy levels. Also called an accredited exercise physiologist (AEP).

flexibility

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

gluteals (glutes)

The muscles that make up the bottom.

hamstrings

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

hormone therapy/treatment

A treatment that blocks the body's natural hormones, used when cancer is growing in response to hormones.

immunotherapy

A type of drug treatment that uses the body's own immune system to fight cancer.

incontinence

The accidental or involuntary loss of urine (wee or pee) or faeces (poo).

low intensity

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

lymphoedema

Swelling caused by a build-up of lymph fluid. This can happen when lymph vessels or nodes can't drain properly because they have been removed or damaged.

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.

neutropenia

A low level of neutrophils, a type of white blood cell. It can make you prone to infections.

pectorals (pecs)

The muscles at the front of the chest.

pelvic floor exercises

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

peripheral neuropathy

Weakness, numbness, tingling or pain, usually in the hands and feet, caused by damage to the nerves that are located away from the brain and spinal cord (peripheral nerves). May be caused by chemotherapy.

personal trainer

May plan and supervise exercise programs, but is not trained to prescribe exercise for people with chronic medical conditions.

physical activity

Any activity that moves your body, and may speed up your breathing and heart rates.

physiotherapist

A university-trained health professional who uses physical methods, such as massage and exercise, to help restore movement and mobility.

platelets

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

quadriceps (quads)

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

radiation therapy (radiotherapy)

Targeted radiation to kill or damage cancer cells so they can't grow, multiply or spread.

red blood cells

Blood cells that carry oxygen around the body.

strength and resistance training

Exercise using weights, elastic resistance bands, medicine balls, weight machines or body weight to increase the size and strength of your muscles. Also called weight training.

thrombocytopenia

A low level of platelets. It can be a side effect of chemotherapy and makes you more prone to bleeding and bruising.

trapezius

The muscles of the upper back.

triceps

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

vigorous intensity

Activity that is hard and 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
-

References

1. Clinical Oncology Society of Australia, *COSA Position Statement on Exercise in Cancer Care*, Clinical Oncology Society of Australia, Version 3, December 2020.
2. SC Hayes et al., "The Exercise and Sports Science Australia position statement: Exercise medicine in cancer management", *Journal of Science and Medicine in Sport*, vol. 22, 2019, pp. 1175–1199.
3. Australian Government Department of Health, *Australia's Physical Activity and Sedentary Behaviour Guidelines for Adults (18–64 years)*, Commonwealth of Australia, Canberra, May 2021.



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 other Pink events, 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 experienced health professionals 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.



If you need information in a language other than English, an interpreting service is available. Call 131 450.



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

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

For information & support
on cancer-related issues,
call **Cancer Council 13 11 20**

Visit your local Cancer Council website

Cancer Council ACT
actcancer.org

Cancer Council NSW
cancercouncil.com.au

Cancer Council NT
cancer.org.au/nt

Cancer Council Queensland
cancerqld.org.au

Cancer Council SA
cancersa.org.au

Cancer Council Tasmania
cancer.org.au/tas

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.*

