



# Physical activity following your cancer diagnosis

The aim of this leaflet is to offer information on why and how you can be active during and after your cancer treatment, and provide exercise examples and guidance on how to do them safely.

# Physical activity during and after cancer treatment

During cancer treatment many people become less active because of the effects of treatment. Being active is a way you can help yourself during and after cancer treatment.

Maintaining or increasing your levels of physical activity can have health benefits and help to manage some of the side effects of treatment including fatigue, pain and nausea.

There is also evidence to suggest that regular exercise may reduce the risk of certain cancers returning.

## Being active during and after treatment has been shown to have the following benefits:

- maintain strength and endurance
- manage and reduce fatigue
- improve flexibility
- boost your immune system
- manage your weight
- strengthen your bones and reduce the risk of osteoporosis
- improve mood and help you relax
- reduce anxiety and depression
- reduce risk of other health conditions including heart disease, high blood pressure and diabetes.

## Stage one – health

Everyone will have different starting points in relation to what they can manage. The key message is to **‘gradually build up what you’re doing, any physical activity is better than nothing’**.

For health benefits the recommendations are to:

- build up to 30 minutes a day of moderate intensity physical activity
- avoid periods of inactivity.

Physical activity can include walking, vacuuming, gardening, climbing stairs, and other general day-to-day activities. This makes it more realistic for you to achieve the desired level of physical activity.

You may be doing all of this already, but you need to make sure you do it at the right intensity, for example, walk a bit faster, or jog up and down the stairs.

You can gather small amounts of physical activity throughout the day to accumulate 30 minutes. Here is an example:

Housework in the morning	5 minutes
Walk to the shop in afternoon	5 minutes (x2)
Walk the dog	10 minutes
Up and down stairs in house throughout the day	<u>5 minutes</u>
<b>Total: 30 minutes</b>	

## Stage two – fitness

When you improve your fitness, you improve the way your body functions. In order to increase your fitness level, you need to **exercise**. This means that the activity you choose must be structured and continuous, allowing your body to work at a moderate intensity for long enough that the necessary changes can take place and produce the benefits you want.

Common exercise activities include (but are not limited to): swimming, cycling, sports, exercise classes, long walks (not short walks added together), aqua aerobics, gym work and Tai Chi.

There is something for everyone, at all levels of fitness. The best thing to start with is a structured walk. It is free and can be done right outside your front door.

To gain fitness you need to try to build up to:

- five days a week
- 10 minute warm up and cool down plus 20-30 minute activity
- moderate intensity – you should feel warm and perhaps slightly breathless, but it should be manageable for you. It should not be so hard that it's not enjoyable.

Please refer to the example exercise programme within this booklet.

## How should I feel?

You can measure how hard you are working by using the 'Talk Test', the breathlessness scale or by measuring your heart rate.

## The Talk Test

### How should I feel when I'm active?

**Light Intensity** You are breathing easily and you can hold a conversation

**Moderate Intensity** You can hold a conversation, but not sing a song

**Vigorous Intensity** You cannot hold a conversation as you are breathing very hard

You should aim to exercise at a 'moderate' level using the 'Talk Test'.

# The Breathlessness Scale

<b>Breathlessness Scale</b>	
<b>0</b>	<b>Nothing at all</b>
<b>0.5</b>	<b>Very, very slight</b>
<b>1</b>	<b>Very slight</b>
<b>2</b>	<b>Slight</b>
<b>3</b>	<b>Moderate</b>
<b>4</b>	<b>Somewhat severe</b>
<b>5</b>	<b>Severe</b>
<b>6</b>	
<b>7</b>	<b>Very severe</b>
<b>8</b>	
<b>9</b>	<b>Very, very severe</b>
<b>10</b>	<b>Maximal</b>

Using the Breathlessness Scale, aim to exercise at level 3-4 or 'moderately breathless'. Over your session, build up to level 4 or 'somewhat breathless'.

## Heart rate

If you would like to use your heart rate as a guide, measure your pulse for **10 seconds** during your exercise session. Use the chart below to see your target range according to your age bracket to aim for at minimum.

Target Range Age	During Treatment			Recovery after Treatment		6 month to year post Treatment completion	
	55%	60%	65%	70%	75%	80%	85%
20	18	19	21	23	24	26	27
25	17	19	21	22	24	25	27
30	17	19	20	22	23	25	26
35	17	18	20	21	23	24	26
40	17	18	20	21	23	24	26
45	16	18	19	21	22	24	25
50	16	17	19	20	22	23	25
55	16	17	18	20	21	23	24
60	15	17	18	19	21	22	24
65	15	16	18	19	20	22	23
70	15	16	17	19	20	21	23
75	14	16	17	18	19	21	22
80	14	15	16	18	19	20	22
85	14	15	16	17	19	20	21

Using Heart Rate Max to determine 10 second results

## Heart rate: continued

To determine which level to work at look at the following criteria:

**During treatment:** you are currently receiving chemotherapy, radiotherapy or have had recent surgery. Hormone therapy is not included.

**Recovery post treatment:** you have completed chemotherapy, radiotherapy or surgery within the last 6 months. You may be on hormone therapy or other long term medication.

**6 months to a year post treatment:** you have completed chemotherapy, radiotherapy or surgery at least 6 months ago. You may be on hormone therapy or other long term medication.

If you are on **beta blocker** medication for your heart, you will not be able to use the heart rate table to monitor your intensity. You will need to use the Talk Test or the Breathlessness Scale.



# Walking

Walking is one of the easiest ways to increase activity. It is free and can be done within your home or outside with friends or family.

Wear a pair of comfortable supportive shoes or trainers and loose fitting clothes. Start with short distances and gradually increase the time and the speed of walking. For most of the walk you should be walking at a pace that makes you moderately breathless where you can hold a conversation but not sing a song.

Always remember to take water with you to keep you hydrated. You can make walking part of your daily routine or as an exercise session by joining a walking group. Consider using a pedometer or phone app to help you to keep going.

# Swimming

You may find swimming an enjoyable and sociable form of exercise. It can be useful if you have joint pain as there is less pressure on joints. Swimming can help manage weight, decrease the risk of heart disease and manage swelling in your limbs caused by lymphoedema (fluid in the body's tissues).

As with walking, gradually build up the amount of swimming you do and remember because the water keeps you cool you may be working harder than you realise.

Swimming is not recommended throughout your chemotherapy, radiotherapy treatment or if you are neutropenic (low immune system). Ask your doctor, clinical nurse specialist or physiotherapist when would be a good time to start.

If you have an altered airway (a tracheostomy or laryngectomy), please ask a health care professional before swimming.

## Exercise and breathlessness

When you feel breathless, the natural thing to do is to rest or avoid the activity that made you breathless. Over time, activity avoidance like avoiding stairs can lead to a reduction in overall fitness.

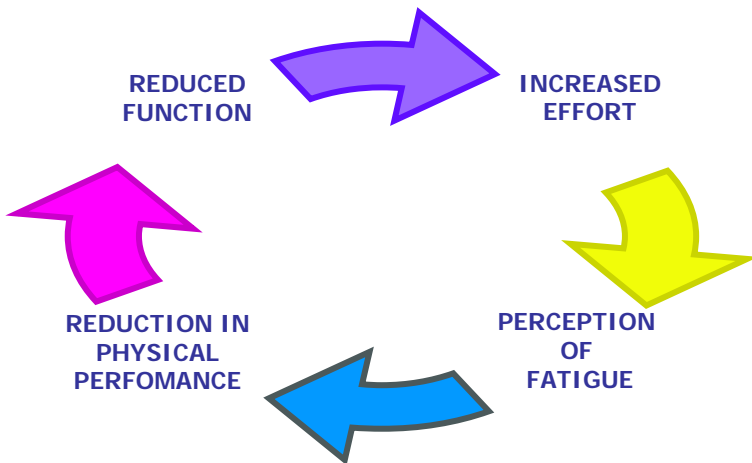
Being breathless when you exercise is normal. It is recommended to pace yourself, start slowly and gradually increase the time spent doing the activity. When you do an exercise aim to be able to talk, but not be able to sing a song. If you find it easy to talk and sing, then you may increase the speed of your activity.

**If BREATHLESSNESS is affecting you doing your day to day activities, support is available. Discuss breathlessness with your physiotherapist or see contact details at back of the booklet.**

# Exercise and fatigue

Fatigue (persistent overwhelming sense of tiredness unrelated to activity) is a common side effect of cancer treatment. There is good evidence to show that doing physical activity can reduce your symptoms of fatigue.

The cycle below shows what can happen without regular activity. Lack of activity can lead to increased effort, increased fatigue and overall reduced fitness.



Many people have good days and bad days with fatigue. It's recommended to be physically active on your good days and bad days. Avoid over doing it on your good days and ensure you do some activity whilst pacing yourself on your bad days.

**If FATIGUE is affecting you doing your day to day activities, support is available. Discuss fatigue with your physiotherapist or see contact details at back of the booklet.**

## Precautions

**If you are new to exercising and you have other medical issues (ie heart problems) it may be wise to discuss with your GP first before starting a new program.**

**Do not exercise or stop exercising if you are experiencing any of the following:**

- you feel unusually unwell
- an irregular heart beat or chest pain
- new or more severe pain than you are used to
- feel unusually short of breath
- feeling sick or are sick during exercise
- vomiting within the last 24-36 hours
- unusual tiredness or muscle weakness
- dizziness or blurred vision
- you have new numbness in your hands or feet
- you have had intravenous chemotherapy within the last 24hours

### **Be careful exercising:**

- If you know your blood counts are particularly low
  - Platelets: If you know these are low, speak to your doctor before exercising especially in regards to exercises which have a large impact on your joints
  - White blood cells: If you are told you are neutropenic you can exercise if you feel well but do not exercise in a public place e.g. a swimming pool until your blood counts improve
- If you have a PICC line. Avoid doing repetitive exercises or using weights on the arm where the PICC line is in place.
- If you have bone disease, you will want to avoid contact sports or heavy loading exercises. Please contact the physiotherapy team for further advice .
- If you have a stoma in your abdomen, please contact the physiotherapy team for specific advice.

If you feel especially tired from treatment on any exercise day, you could try exercising for less time, at a lower intensity than usual, or plan to exercise the following day instead.

If you consider the above and work at the correct intensity described, exercise will be enjoyable and safe.

**If in doubt always speak to your doctor, nurse or physiotherapists for more advise**

## Exercise in the community

- Contact your GP to find out about opportunities to get involved in exercise in your community. You may be able to be referred to the Exercise on Referral Program.
- It is important to seek the advice of a health or exercise professional before beginning an exercise programme if you are new to exercising. Ask your exercise professional if they have had experience working in cancer.
- Contact your council to find out if there are any leisure centres with recreational facilities in your area
- Be sure to attend induction sessions at the leisure centre before using exercise machines

## Resources

- Contact the Oncology Physiotherapy team at Guy's and St Thomas' NHS Trust for information, 1:1 advice or about our Cancer Rehabilitation Classes, on 020 7188 5106
- Walking for Health has a number of walking groups across the UK. If you are interested in walking groups contact 020 7339 8541 for more information.
- A range of physical activity options near you can be found on Active London website:  
[www.getactivelondon.com](http://www.getactivelondon.com)
- Your specialist cancer nurse
- Dimbleby Cancer Care information services  
Tel: 020 7188 5918  
Web: [www.dimblebycancercare.org](http://www.dimblebycancercare.org)



## Example exercise programme

### **Warming up and cooling down (10 minutes each)**

This prepares your body for increased activity and reduces the risk of straining or aggravating your symptoms.

Exercises and stretches can be done in either a sitting or standing position. Hold each stretch between 15-30 seconds.

- Marching
- Pumping ankles
- Punching arms
- Arm stretch
- Arm circles
- Calf stretch
- Hamstring stretch
- Thigh stretch

### **Exercise so your breathing is a bit harder and deeper (20-30 minutes)**

Remember during exercise you should feel moderately breathless.

- Marching on the spot (standing and sitting) and include arm swing
- Sit to stand for 2 minutes
- Step ups onto a step for 2 minutes
- Kicking your bottom
- Brisk walk, jogging or cycling

## Example exercise programme (continued)

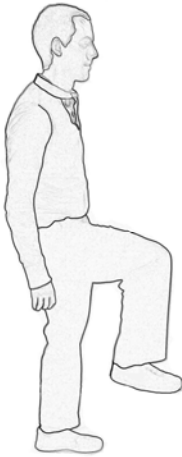
### **Followed by strengthening exercises in standing**

You should aim to do 8-12 repetitions **(5-10 minutes)**

- Wall press ups
- Arm curls (can be done in sitting)
- Stand on your toes
- Wall Squats
- Lunges
- Bridging

All of the exercises in this booklet should be completed 3 times a day. Aim to complete 8-12 repetitions of each of the exercises. If you would like to progress your exercises, aim to complete 2-4 sets of the exercises.

If you have lost weight (or are losing weight) due to the cancer or the treatment, you may want to focus on the strengthening exercises more than the aerobic exercises. This will help you to lay down muscle rather than lose weight.



### **Marching**

- Using support if required, march on the spot raising your knees high.

### **To progress:**

- Wear ankle weights attached to your ankles.



### **Sit to stand**

- Stand up and sit down using your hand(s) as required.
- Do as many as you can in a minute.

### **To progress:**

- Cross your arms across your chest.



### **Step ups**

- Climb one or two stairs or a flight of stairs quickly holding onto a rail if required.

### **To progress**

- Increase the speed and the amount of stairs.



### **Wall push ups**

- Face the wall with elbows straight and arms at shoulder height.
- Do push ups against the wall keeping your body in a straight line.



### **Arm curls**

- Bend and straighten your arm.

### **To progress:**

- Introduce a light weight and gradually increase.



### **Stand on your toes**

- Use support if required.
- Go up onto your toes.

### **To progress:**

- Hold each lift for up to 5 seconds.
- Wear an ankle weight.



### **Wall squats**

- Lean against the wall.
- Bend your knees as if coming into a seated position slowly.
- Straighten your knees to stand up again slowly.

#### **To progress:**

- Hold each squat for up to 5 seconds.

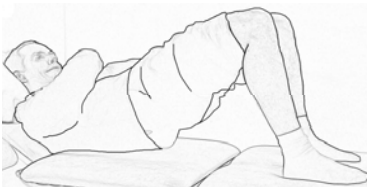


### **Lunges**

- Start in a standing position and use support if required.
- Take a large step forward and slowly bend your knees- try not to wobble or shake.
- Slowly return to your starting position.

#### **To progress:**

- Carry weights in each hand.



### **Bridging**

- Lie on your back, bend your knees and cross your arms across your chest.
- Lift your bottom up and down slowly- avoid shaking.

#### **To progress:**

- With your bottom raised, lift one leg up and then slowly lower without shaking.

# Example exercise diary

Exercise	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Sit to stand							
Marching							
Bridging							
Lunges							
Squats							
Write how many of each exercise you completed. Remember you are aiming to feel slightly breathless where you can talk but not sing a song							

## Change to be more active

Sometimes we are not sure we are ready to make a change. Perhaps we would like to become more active but we don't think we can do it right now.

The process of making a change is different for each person and can take time. It does not often happen in an orderly way. At times we may feel we are making progress, but at other times we feel we are going backwards rather than forwards.

How ready are you to make this change right now?



## How confident do I feel about being more active right now?

Circle a number on the scale below:

Not Confident

Very Confident



0 1 2 3 4 5 6 7 8 9 10

If you don't feel very confident, don't worry. Just taking one step at a time will help you to make small changes.

Why did you pick this number on the scale and not a lower number?

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What would help you to be more confident about being more active?

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## Plan for change

Consider what is important to you, what you would like to achieve in the next days or weeks and what is realistic for you to complete in this time scale.

Complete the section below to help you make your goal specific to you.

*eg I will walk 5 times a week in my local park for 20 minutes*

I will \_\_\_\_\_ (write activity)

\_\_\_\_\_ (how often?)

at \_\_\_\_\_ (where?)

for \_\_\_\_\_ (how long? min/hours)

You can write more than one goal and have short term (days to weeks) as well as long term (months to years) goals.

Once you have made a change you need to be able to maintain the change. For example when we start a routine in the spring time where we go for a walk every day for 20 minutes, we need to make a plan for how we are going to continue when the weather is not as good. Include in your plan an alternative activity. For example 'if I am unable to go for a walk this morning, I will do this other activity instead.'

You can write other goals for yourself at the end of the booklet.

## Bring it all together

1. The reasons I want to be more active are:

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2. I will know I have been successful when:

---

3. This is what I am going to do to be successful:

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4. Other people can help me by:

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5. Things that might get in the way of my plan are:

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6. I will get round these by:

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## What if I need more help?

Being active can be difficult especially with challenging treatment regimes, treatment side effects or returning to normality after treatment.

Some of the things which others have found useful include:

- remind yourself why you want to be more active
- share your plans with friends and family
- ask your friends and family to help or join you
- set goals you can achieve at your own pace
- gradually build up how much you do
- keep a record of how active you have been and how it makes you feel so you can see your progress
- choose activities you enjoy
- don't be disheartened if you miss a session or you are going through a difficult time, just keep going
- speak to your oncology team about any concerns
- contact the cancer physiotherapy team for support
- talk to others who have been in your situation.

# Support after a cancer diagnosis to be more active

Being active and staying active can be challenging at times.

If you have any specific questions regarding exercise due to your condition or side effects, please contact the oncology rehabilitation team for further advice.

If you have any questions about doing exercise due to your treatment side effects or due to the cancer, then please contact the oncology physiotherapy team using the contact details at the end of this booklet.

If you would like to contact us for support or advice, perhaps as your situation has changed, please contact us at the below details:

## **Telephone**

020 7188 5106 (answer phone)

## **Email**

[Active.you@gstt.nhs.uk](mailto:Active.you@gstt.nhs.uk)

## Goals (continued)

I will \_\_\_\_\_ (write activity)  
\_\_\_\_\_ (how often?)  
at \_\_\_\_\_ (where?)  
for \_\_\_\_\_ (how long? min/hours)

I will \_\_\_\_\_ (write activity)  
\_\_\_\_\_ (how often?)  
at \_\_\_\_\_ (where?)  
for \_\_\_\_\_ (how long? min/hours)

I will \_\_\_\_\_ (write activity)  
\_\_\_\_\_ (how often?)  
at \_\_\_\_\_ (where?)  
for \_\_\_\_\_ (how long? min/hours)

[illegible]

## Contact us

If you have any questions or concerns about the information given in this booklet or your breathlessness please contact the **Oncology Physiotherapist** on 020 7188 5106 or **Oncology Occupational Therapist** on 020 7188 4185. Please leave a message if your call is not answered. Opening hours are 8.30am to 4.45pm, Monday to Friday. Alternatively, please email [Active.you@gstt.nhs.uk](mailto:Active.you@gstt.nhs.uk)

Guy's and St Thomas' hospitals offer a range of cancer-related information leaflets for patients and carers, available at [www.guysandstthomas.nhs.uk/cancer-leaflets](http://www.guysandstthomas.nhs.uk/cancer-leaflets). For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit [www.guysandstthomas.nhs.uk/leaflets](http://www.guysandstthomas.nhs.uk/leaflets)



**Dimbleby Cancer Care** provides cancer support services for Guy's and St Thomas'. We have a drop-in information area staffed by specialist nurses and offer complementary therapies, psychological support and benefits advice for patients and carers.

Dimbleby Cancer Care is located in the Welcome Village of Guy's Cancer Centre. **t:** 020 7188 5918  
**e:** [DimblebyCancerCare@gstt.nhs.uk](mailto:DimblebyCancerCare@gstt.nhs.uk)

## Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

**t:** 020 7188 8748 9am to 5pm, Monday to Friday

## Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

**t:** 020 7188 8801 (PALS)      **e:** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk)

**t:** 020 7188 3514 (complaints)      **e:** [complaints2@gstt.nhs.uk](mailto:complaints2@gstt.nhs.uk)

## Language Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

**t:** 020 7188 8815      **e:** [languagesupport@gstt.nhs.uk](mailto:languagesupport@gstt.nhs.uk)

## NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

**w:** [www.nhs.uk](http://www.nhs.uk)

## Get involved: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved.

**t:** 0800 731 0319      **e:** [members@gstt.nhs.uk](mailto:members@gstt.nhs.uk)

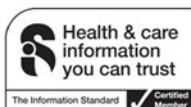
**w:** [www.guysandstthomas.nhs.uk/membership](http://www.guysandstthomas.nhs.uk/membership)

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