

Lifestyle changes to
promote better
quality of life during
treatment.



About this booklet

Who should read this booklet?

This booklet is aimed at men who have been diagnosed with prostate cancer and are on androgen deprivation therapy (ADT; you may know this as hormone therapy). Partners, families, and friends might also find this booklet useful.

What is the purpose of this booklet?

Many people affected by cancer want to know what they can do to make positive changes to their lives. Increasing physical activity and maintaining a healthy balanced diet can be a big part of this.

This booklet informs you about the benefits of exercise during and after ADT. It provides practical advice on how to get started and exercise safely. We've also included top tips for starting and maintaining a healthy balanced diet and provided you with information about food labelling and portion sizes.

Contact details for exercise facilities and information about accessing services in your local area can be found at the back of this booklet. If you would like more information, please talk to a member of your clinical team.



Look out for this symbol, where you can write notes.

Definitions

ADT = Androgen Deprivation Therapy (also referred to as hormone therapy)

DRE = Digital Rectal Examination

NICE = National Institute for Health and Care Excellence

PSA = Prostate Specific Antigen

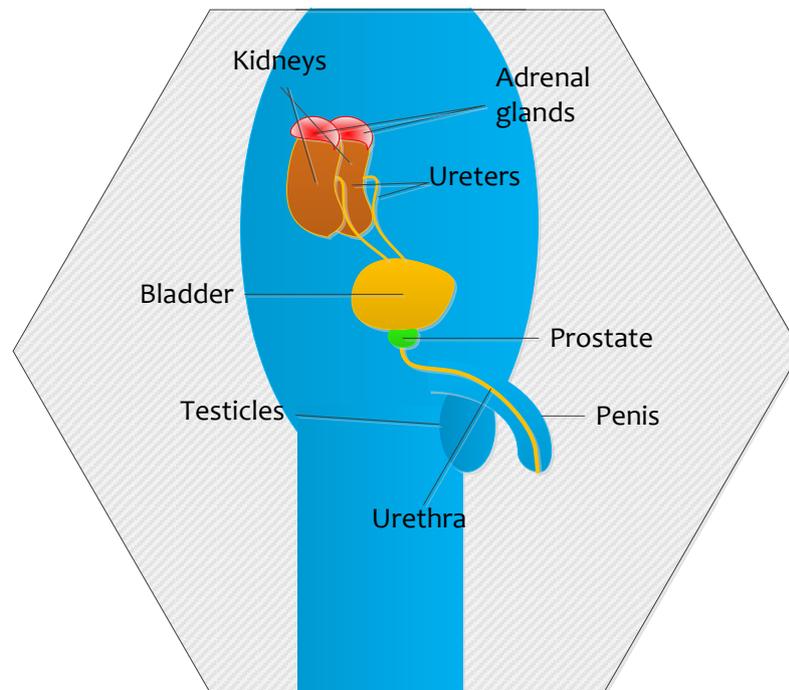
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What is the prostate?

The prostate is a gland that only men have. The prostate is a similar shape and size to a walnut. It sits between the bladder and the penis and surrounds the urethra.

The main job of the prostate is to produce the seminal fluid that assists with sperm transportation. During ejaculation, the prostate squeezes semen into the urethra which is expelled with sperm.



What is prostate cancer?

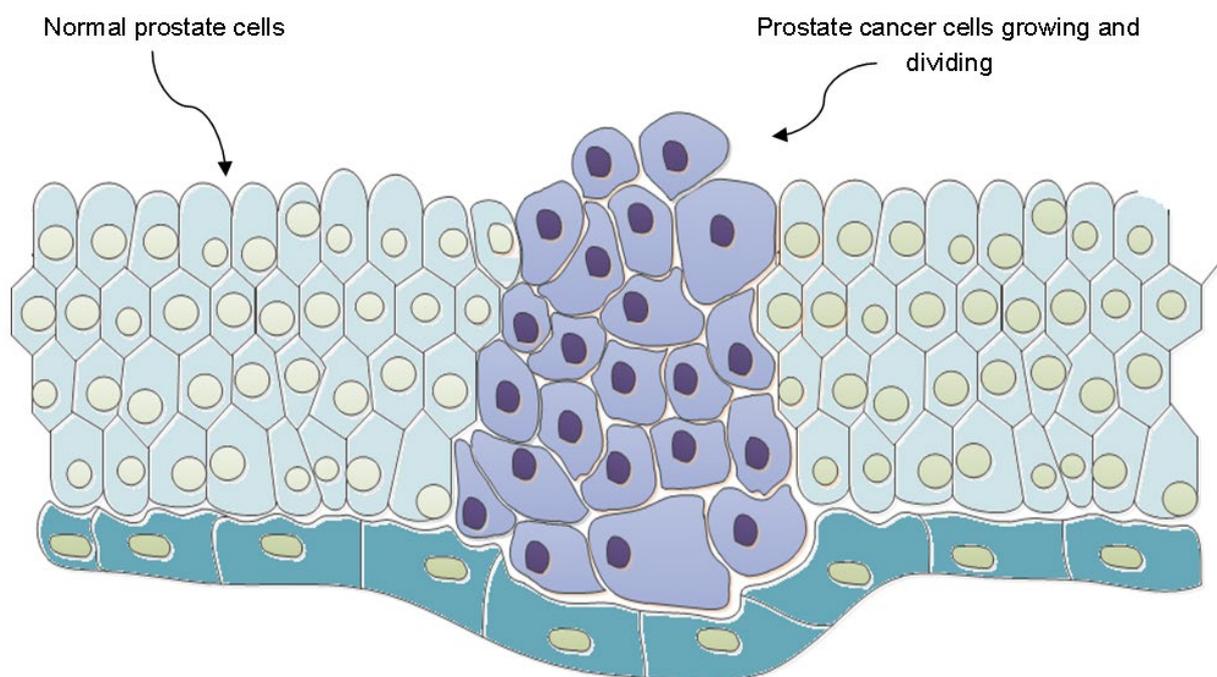
The human body contains more than a hundred million million (100,000,000,000,000) cells. For best functioning, cells normally grow and divide to replace aging or damaged cells, and this is controlled by signals within the cells that trigger how much and how often the cells need to divide. If any of these signals become damaged or missing, cells may start to grow in an uncontrolled way and multiply too much. If this happens in the prostate, prostate cancer is formed.

Advanced prostate cancer

Prostate cancer cells can move from the prostate to other parts of the body through the blood stream. Prostate cancer cells can also spread to the lymph nodes and travel to other parts of the body through the lymph vessels. If the cancer has spread outside of the prostate this is classed as locally advanced prostate cancer or advanced prostate cancer, depending on how far the cells have spread.

Locally advanced prostate cancer is when the cancer cells have started to break out of the prostate or have spread to the area just outside the prostate. It may spread to the seminal vesicles, the bladder, the pelvic wall, the rectum, or the lymph nodes near to the prostate. You may have treatment to cure the cancer or to keep it under control. Please ask a member of your clinical team for more information.

Advanced prostate cancer is when the cancer has spread to other parts of your body. This can also be referred to as metastatic prostate cancer. Prostate cancer most commonly spreads to bones and lymph nodes however it can spread to any part of the body. Advanced prostate cancer is not curable, but treatments can keep it under control, sometimes for several years. There are also treatments available to help you manage the symptoms of advanced prostate cancer including fatigue (extreme tiredness), pain in the back, hips or pelvis, and problems urinating. Please ask a member of your clinical team for more information.

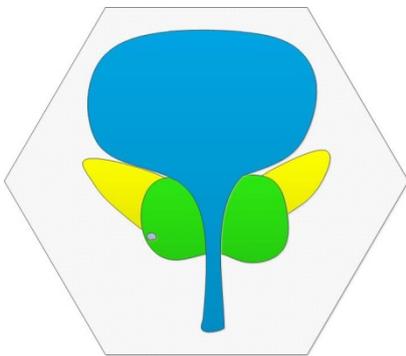


What stage is my cancer?

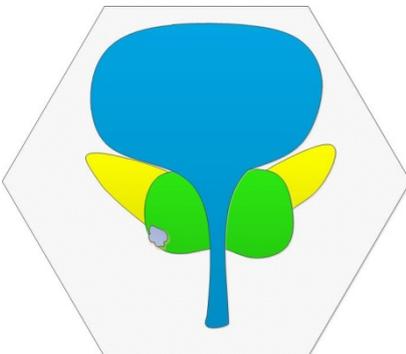
The results of MRI, bone and CT scans can provide information about the stage of your cancer i.e., how far it has spread. Your cancer will be classed as T, N or M stage and will be used to work out if your cancer is localised, locally advanced or advanced. This section will provide you with more information on the stage of your cancer. However, if you have any uncertainties please speak to a member of your clinical team.

T stage

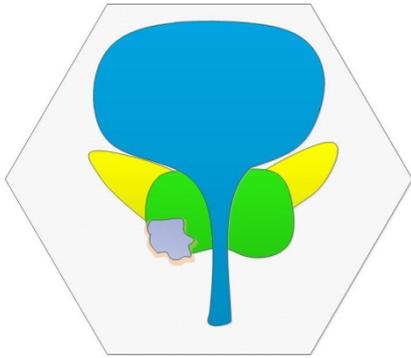
The T stage shows how far the cancer has spread both within and around the prostate.



T1 The cancer cannot be felt during a digital rectal examination (DRE) or seen on scans and can only be seen under a microscope.

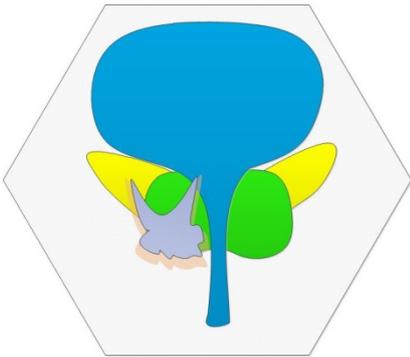


T2 The cancer can be felt during a DRE and can be seen on scans. The cancer is contained inside the prostate.



T3a The cancer can be felt during a DRE and can be seen breaking out of the prostate on scans. The cancer has not spread to the seminal vesicles.

T3b The cancer can be felt during a DRE and can be seen breaking out of the prostate on scans. The cancer has spread to the seminal vesicles.



T4 The cancer has spread to nearby organs, such as the bladder, back passage, pelvic wall, or lymph nodes.

N stage

The N stage shows whether the cancer has spread out of the prostate to lymph nodes near the prostate.

- **NX** - No conclusion available. The scans were unclear, or the lymph nodes were not looked at.
- **N0** - No cancer was seen in the lymph nodes.
- **N1** - Cancer was seen in the lymph nodes.

M stage

The M stage shows whether the cancer has spread to other parts of the body (metastasised), such as the bones.

- **MX** - No conclusion available. The scans were unclear, or the spread of the cancer was not looked at.
- **M0** - There were no signs of cancer spread to other parts of the body.
- **M1** - There were signs that the cancer has spread to other parts of the body.

What does my stage mean?

The TNM stage is used to determine if your cancer is localised, locally advanced or advanced:

- Localised – the cancer is inside the prostate.
- Locally advanced - the cancer is starting to break out of the prostate.
- Advanced metastatic - the cancer has spread from the prostate to other parts of the body.

	T stage	N stage	M stage
Localised	T1 or T2	N0	M0
Locally advanced	T1 or T2	N1	M0
	T3 or T4	N0 or N1	M0
Advanced Metastatic	Any T stage	Any N stage	M1

Androgen Deprivation Therapy

What is androgen deprivation therapy?

Androgen deprivation therapy is an effective treatment for controlling prostate cancer and can be referred to as ADT or hormone therapy. ADT will treat all prostate cancer cells, wherever they are in the body and will keep the prostate cancer under control, sometimes for several years.

ADT can also reduce some of the symptoms of advanced prostate cancer, such as bone pain. ADT is often offered with external beam radiotherapy to treat locally advanced prostate cancer. ADT may also be offered with chemotherapy to treat advanced prostate cancer.

How does androgen deprivation therapy work?

Testosterone is a hormone that controls the development and growth of sexual organs such as the prostate gland. Testosterone also controls other male characteristics such as erections and muscular strength. Testosterone is produced by the testicles, and a small amount comes from the adrenal glands which sit above the kidneys. Prostate cancer cells usually need testosterone to grow.

Androgen deprivation therapy can work in two ways.

- 1) It stops the body from making testosterone or
- 2) it stops testosterone from reaching the prostate cancer cells. If testosterone is blocked or removed, prostate cancer will usually shrink, wherever it is in the body.

Androgen deprivation therapy on its own will not cure prostate cancer but it does work alongside other treatments like radiotherapy to improve its effects.

Androgen deprivation therapy will keep the disease under control, sometimes for several years. It can also help manage symptoms of advanced prostate cancer, such as bone pain.

Why have I been started on androgen deprivation therapy?

You have been prescribed ADT (hormone therapy) because it is the standard treatment for men with localised, locally advanced, or advanced prostate cancer. It is used in different ways depending on the stage of your cancer. If you are unsure whether your cancer is localised, locally advanced or advanced, please speak to a member of your clinical team.

Localised prostate cancer – If your cancer is within the prostate, you may be prescribed ADT for a short period of time.

Locally advanced prostate cancer - If your cancer has spread to the area just outside of the prostate you may be prescribed ADT before, during and after radiotherapy.

Advanced/ metastatic prostate cancer - If your cancer has spread to other parts of your body ADT may be a life-long treatment option for you. You may be offered chemotherapy and/ or radiotherapy at the same time as ADT.

How will I receive androgen deprivation therapy?

Androgen deprivation therapy is usually administered by an injection every 4 - 12 weeks.

If your prostate specific antigen (PSA) score is low and steady, your clinical team may temporarily stop your treatment of ADT. Treatment will re-start when your PSA starts to rise. This will normally be when your PSA rises to, or above a score of 10. This is known as **intermittent hormone therapy (or intermittent ADT)**.

Intermittent ADT can be as effective as continuous treatment, but it is not suitable for everyone. You will need to have your PSA levels checked every three months whilst you are having a break from ADT. Having a break from treatment may mean that your cancer might grow. Please speak to a member of your clinical team about the advantages and disadvantages of intermittent ADT.

Side Effects of Androgen Deprivation Therapy



Androgen deprivation therapy (ADT) reduces, stops, or blocks testosterone reaching the prostate and as a result you may experience some physical and emotional side effects. Some men find that with time their side effects get better or become more manageable. However, everyone is different. In this booklet, we discuss how exercise could help you manage the side effects of ADT (listed below):

- Extreme tiredness (fatigue)
- Hot flushes
- Changes to your sex life including loss of a desire for sex
- Difficulties getting or keeping an erection
- Weight gain
- Breast swelling or tenderness (gynaecomastia)
- Strength and muscle loss
- Risk of type 2 diabetes, heart disease and stroke
- Mood swings
- Changes to your memory and concentration

Questions for my clinical team

ADT affects men in different ways. Some men have fewer side effects than others. This does not mean that your treatment is any more or less effective.

Extreme tiredness (fatigue)

You may find that you feel extremely tired whilst on ADT. Some men find that tiredness can come on quite suddenly, which means you need to be careful in certain situations such as driving. Tiredness can also influence your motivation and emotions.

What can I do?

- Try to maintain a regular sleeping pattern even if you feel tired during the day.
- Try to break tasks down into smaller manageable chunks. Do a little bit each day rather than a lot at one time.
- Try to plan activities for when you know you will have more energy.
- Try to keep active every day.
- Ask your employer about reducing your hours, working from home, or changing your work tasks to make things easier for you.
- Research shows that exercising for twice a week for 12 weeks can help men on ADT reduce their fatigue - more information on exercise is presented on page 15.

Risk of heart disease, stroke, and type 2 diabetes

Research suggests that ADT might increase the chance of developing heart disease, stroke, or type 2 diabetes. Currently, more research is needed to understand the link between these conditions. Please talk to your clinical team if you already have heart problems or diabetes. They will work with you to manage your conditions.

It is important to remember that these conditions may be worrying but ADT may help you to live longer by controlling your cancer.

What can I do?

- Maintain a healthy lifestyle including a balanced diet and regular physical activity - please see page 15 for more information.
- Stop smoking and reduce alcohol consumption.

Changes to your appearance

Testosterone influences the physical make up of men's bodies therefore you may notice some changes to your body whilst having ADT.

For example, ADT can reduce muscle tissue and increase body fat, particular around your waist.

You may also experience swelling and tenderness in the chest area (gynaecomastia) due to the balance of the hormone's oestrogen and testosterone. The amount of swelling can vary from a small amount to a more noticeably enlarged breast. Tenderness can affect one or both sides of the chest ranging from mild sensitivity to ongoing pain.

Changes to your body may alter how you feel about yourself and how physically strong you feel. These feelings are common but may lead to feelings of anxiety or depression.

For information about the help and support available to you, please see the contact details at the back of this booklet or speak to a member of your clinical team.

What can I do?

- Research shows that resistance exercise can help to reduce muscle loss.
- Maintain a healthy balanced diet - more information is presented on page 22.
- Talk to family or friends about how you feel and how they might help.

"You can still go out, still go to the theatre, listen to music, and go for dinner with friends" A patient's experience

Changes to your sex life

Sex is an important part of life for many men and can be affected by ADT, regardless of sexuality. This is because ADT can lower or stop the production of testosterone which is what gives you your sex drive. For example, you may notice differences in:

- your ability to get an erection, ejaculate or have an orgasm.
- your desire for sex (libido).
- your ability to have children (fertility).
- your penis and testicle size.
- how you feel about yourself sexually.
- your relationships.

In most cases, these effects can last for the entire duration that you are on ADT. Once you stop having ADT, it may take up to a year for sexual functioning to return to normal.

Please try not to feel embarrassed when talking about changes to your sex life. Remember, your clinical team have talked about these problems many times before.

Doctors and nurses can offer advice on helping with sexual difficulties and may provide medication, practical tips, or referrals to specialist services.

What can I do?

- You may find it useful to talk through your difficulties with your partner. Explaining why you do not feel like having sex may reassure your partner that your feelings for them have not changed.
- You may want to explore other ways of having an intimate relationship or try different positions to see which are most comfortable for you.
- If tiredness is a problem, you may want to explore times of the day when you have more energy. This may make having sex more enjoyable.

Hot flushes

Hot flushes are a common side effect of ADT. They can be described as a sudden feeling of heat that spreads throughout the body. They may happen suddenly without warning or be triggered by things such as stress, or a change in temperature. Depending on the severity of the hot flush, you might experience sweating, palpitations or get rosy cheeks. You might also sweat at night which may disrupt your sleep. Hot flushes can be mild, moderate, or severe.

- A **mild** hot flush can last up to three minutes and may make you feel warmer than normal.
- A **moderate** hot flush can make you feel uncomfortably hot. You might sweat and may need to remove some layers of clothing to feel more comfortable.
- A **severe** hot flush can make you feel very hot and sweaty. You may need to change your clothing or bedding. You may feel irritable and sometimes sick (nauseous).

After a hot flush, you may feel cold, shivery, or slightly washed out. Some men find their hot flushes get milder and occur less frequently over time, but other men continue to experience hot flushes for as long as they have ADT. If your symptoms are disruptive, please speak to a member of your clinical team who may suggest medication or complimentary therapies such as acupuncture or hypnotherapy.

What can I do?

- Try to keep your room at a cool temperature. A fan may help.
- Try to have lukewarm baths and showers instead of hot ones.
- Use light cotton bed sheets and consider sleeping on a cotton towel if you sweat a lot at night so that you can change your bedding easily.
- Wear cotton clothes, especially at night.
- Keep well hydrated and minimise alcohol consumption - more information is provide on page 25.

Exercise

Participating in regular exercise can help alleviate the side-effects of ADT and boost your energy levels, quality of life, self-esteem, mood, and sleep quality.

In 2014, the National Health Institute for Health and Care Excellence (NICE) produced guidelines recommending that men starting or having ADT should be offered supervised resistance and aerobic exercise twice a week for 12 weeks, to reduce fatigue and improve cancer specific quality of life.

Research has demonstrated that exercise has many physical and psychological benefits to health.



How much activity is recommended?

There are UK recommendations for physical activity in adults. Adults are recommended to do one of the following every week:

- 150 minutes of moderate exercise
- 75 minutes of vigorous exercise
- Or a combination of the two

You might want to break down your exercise into more manageable chunks. For example, you might like to exercise for 30 minutes, 5 times a week at a moderate intensity. You could break this up even further by completing your 30 minutes of exercise in 3 lots of 10 minutes.

Moderate intensity exercise will raise your heart rate and make you breathe faster than normal. You will also feel a little warmer than usual. One way to tell if you are exercising at a moderate intensity is if you can still talk and hold a conversation but cannot sing the words to a song.

Daily tasks such as shopping, cooking or household chores do not count as moderate intensity exercise because the effort is not enough to raise your heart rate. However, this type of exercise is still important since it breaks up periods of prolonged sitting.

Vigorous exercise will raise your heart rate and make you breathe much faster than normal. If you are exercising vigorously, you will not be able to continue with your conversation.

How much is right for me?

Being active does not mean you have to exercise vigorously every day. If you are new to exercise it might be best to slowly introduce activities such as walking and gardening. Gradually, you might want to increase the duration and intensity of your exercise routine and choose activities that you enjoy doing. If you were active before you may be able to continue with the same activities when you feel able to do so.

Exercise guidelines for adults

Get Active

Build Strength

Improve balance

150- or **75 -**
300 **150**

minutes of moderate

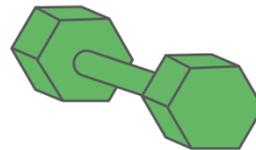
minutes of vigorous

2+

days a week

3+

days a week



WALK

CYCLE

GYM

DANCE

SWIM

RUN

AEROBICS

TAI CHI

GARDENING

RACKET SPORTS

CARRY BAGS

BOWLING

Try to avoid prolonged periods of time sitting still.

What exercise should I do?

There is not one type of exercise that is best for everyone. Instead, you might want to choose exercise that you enjoy and those that will fit into your daily routine. If possible, it is recommended that you do a combination of aerobic and resistance exercise to:

- Reduce tiredness.
- Improve your mobility.
- Improve your cardiovascular health.
- Build and maintain strong bones.
- Regulate your blood sugar and blood pressure levels.
- Help to maintain a healthy body weight (NHS, 2018)

See below for some example aerobic and resistance exercises.

Aerobic

Walking briskly

Gardening

Running or jogging

Cycling, Swimming or Dancing

Golf

Racket sports (tennis, badminton, squash)

Bowling

Resistance

Sit to stand or squats

Calf raises

Use food cans or water bottles as weights

Press-ups against the wall, on a chair, or on the floor

How I might feel during and after exercise

During exercise, your body will deliver oxygen to your working muscles more quickly than when you are at rest. As a result, you may notice one or more of the following changes to your body, all of which are a normal response to exercise:

- heavier and quicker breathing
- increased heart rate
- increased body temperature
- redness of the face
- slight muscle ache/ discomfort

After exercise, you may experience muscle soreness or slight joint pain, especially if you have not exercised for a long period of time or have changed your usual exercise routine. These outcomes are normal and may last for several days, or you might not notice them for several days. This is called delayed onset of muscle soreness. If you experience any other side effects, please contact a member of your clinical team.

What should I wear?

It is recommended that you wear clothes that you'd feel comfortable to exercise in and shoes that are supportive (e.g., trainers). Do not risk falling or getting injured by wearing unsupported shoes.

Safety during exercise

It is important to take care of yourself when you start exercising or increase the amount of exercise that you are doing. See below for some general advice. If there is anything you are unsure about, please speak to a member of your clinical team:

- Always remember to warm up. Start slowly and gradually build up.
- Stop exercising and contact your doctor if you experience and are concerned about any of the following symptoms:
 - feeling dizzy
 - chest pain
 - an irregular heartbeat (palpitations/ racing heart)
 - breathing problems
 - feeling sick
 - unusual back or bone pain
 - muscle weakness
 - constant headache
- If you are feeling unwell, experiencing symptoms or have an infection/ high temperature it may be best to rest and exercise once you are feeling better.
- Try to avoid uneven surfaces and exercise that may increase the risk of falling or injuring yourself.
- If you are exercising outdoors, ensure you are protected from the sun in summer and wrap up warm in cold weather.

What activities are available to me?

To find out more about the activities that are available to you in your local area, we recommend that you:

- Contact your local council (call or search their website).
- Contact walking groups in your local area.
- Search for Move More events in your local area.
- Search for exercise videos and podcasts on the NHS website.
- Contact national sports councils for information about the exercise facilities in your local area.

Contact information is provided at the back of this booklet

How will my treatment impact my exercise?

Androgen deprivation therapy

- You may feel extremely tired whilst on ADT. However, exercise has proven to reduce levels of tiredness. You might prefer to exercise during times of the day when you have more energy e.g., mid-morning. Alternatively, you may choose to lower the intensity or duration of exercise on days that you are feeling particularly tired.
- If you experience hot flushes, you might experience sudden changes in body temperature. It may be beneficial to exercise in a room at a cool temperature, to wear light cotton clothing and to have a change of clothes.

Chemotherapy

- If you have had chemotherapy, you may be advised to avoid exercising in public places such as swimming pools and gyms. This is because chemotherapy may lower your white blood cell count which can increase your risk of infection. This is only temporary.
- Following chemotherapy, your platelet count may be low. If this is the case, you may be advised to exercise gently since you may be at a higher-than-normal risk of bruising or bleeding.

Radiotherapy

- If you have skin irritation or redness from radiotherapy you might feel more comfortable wearing loose clothing. You might also want to avoid swimming as the chemicals in the water may cause further irritation. Once your treatment has finished, and any irritation has stopped, you are fine to go swimming.

Food and nutrition tips



As with all cancer treatments, ADT can cause various side effects. Making some changes to your diet and lifestyle may improve these side effects and decrease your risk of developing related diseases. This information has been written for somebody who does not have any other pre-existing medical conditions and is based on advice from the World Cancer Research Fund (diagram on page 32). If you have diabetes, more information can be found on page 31.

Remember to speak with your doctor or nurse if you are worried about any existing or new side effects or if you have any other health conditions.

Maintaining a healthy weight

Being overweight or underweight can influence your overall health, and ADT can also increase the likelihood of you putting on weight.

Being overweight increases your risk of cardiovascular disease and type-2 diabetes, and there is some evidence that obesity is associated with elevated risk of aggressive prostate cancer.

ADT can also affect the amount of muscle in your body and increase the amount of fat due to the reduction in testosterone.

An easy way to check you are a healthy weight is to measure your waist size. The NHS recommends that men with a waist size of 37" inches (94cm) or more should try to lose some weight.

My waist size:

Date of measurement:

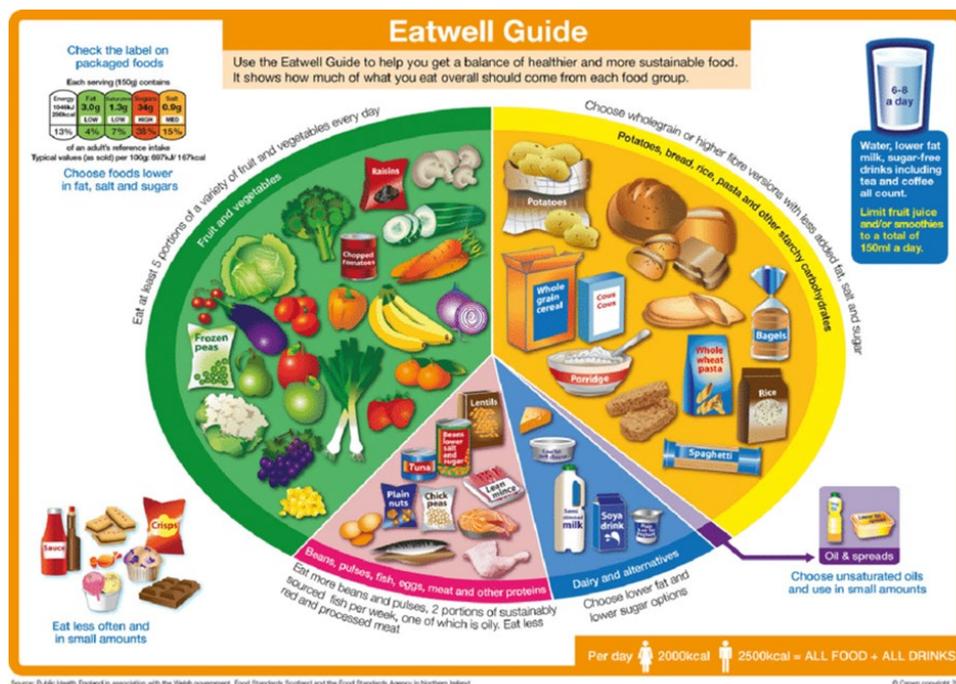
Research has shown that reducing body fat is associated with an improvement in cancer specific quality of life. To lose weight safely, it is best to aim for smaller steady changes. For instance, even just a 3% loss in weight (2-3 kg) can make you feel better if you are overweight. Some ways to make healthier choices and avoid foods which cause weight gain will be discussed later in this information booklet.

If you are underweight, or treatment has caused you to lose a lot of weight, then you should speak to your doctor about how to manage this. Being underweight can increase your chances of bone thinning, which can also be affected by ADT.

Using the Eatwell Guide

The best way to maintain a healthy balanced diet is to eat a mixture of foods; these should include lots of fruits and vegetables, whole grains, protein rich foods and some dairy or dairy alternatives.

This is a great resource produced by the NHS, which provides information about each food group and helpful examples of what types of food from each group you could choose to eat. This will help you to ensure that you are getting a balanced diet, and all the nutrients that you need from your meals.



Fruits and Vegetables

Incorporating fruit and vegetables in your diet is an excellent way to add vitamins, minerals, and fibre to your diet. They also make you feel fuller for longer which is good if you are trying to maintain a healthy weight or are trying to lose weight.

Try to portion fruit and vegetables so they make up just over one third of your plate, this will help you to meet the 5 a day recommendation. One portion is 80g, which is about a handful. Fresh, frozen, dried, and tinned fruit all count towards your 5 a day but because dried foods are more condensed, a portion is just 30g.

It may be helpful to increase your fruit and vegetable intake steadily, as snacks, or by adding them to meals you already enjoy. You could add a portion of peas or baked beans to your evening meal, have a small glass of orange juice (150ml) with breakfast, or snack on some apple, raw carrot, or dried apricots throughout the day.

Starchy foods

Starchy foods provide us with energy and fibre along with calcium, iron and B vitamins and form an important part of our diet. If possible, try to choose wholegrain varieties and leave the skin on potatoes. Starchy foods should take up around one third of your plate.



Protein-rich foods

When we think of protein-rich foods we often only think of meat or fish, but many foods contain protein and can provide some variety and other nutrients as well. Other foods which are high in protein include: eggs, dairy, tofu and soya products, unsalted nuts, and beans and pulses (beans and pulses provide one of your 5 a day too).

If you eat meat then healthier choices include lean cuts, low fat mince and reducing intake of red and processed meats like sausages, which are very high in saturated fat and salt. There are a lot of vegetarian versions of sausages now available which are often lower in calories and fat.

Dairy

Dairy forms an important part of our diet; it is high in calcium and can also be a great source of protein, especially for vegetarian diets. While some studies have suggested that calcium is not good for people with prostate cancer, calcium is an important mineral for all of us especially men on ADT.

Dairy as a source of calcium

Milk, cheese, and yogurt can all make up part of a healthy diet but opt for low-fat versions to limit the amount of saturated fat you are consuming. Flavoured yoghurts may have lots of sugar added to them so check the ingredients on the back of the pack to find out before buying.

Calcium-fortified dairy alternatives are also included in this food group. These could be things like soya, almond or hemp milks and yoghurts. Choose unsweetened versions and avoid those labelled as 'organic' as these tend not to be fortified.

Fats

Everybody needs some fat in their diet, but it is important to choose healthy fats and to eat them in moderation as they are very calorie dense and may lead to weight gain. Healthy fat choices, low in saturated fats and higher in unsaturated fats, include vegetable, olive, sunflower, and rapeseed oils. Other healthy sources of fats include avocados, unsalted nuts, and oily fish such as mackerel, salmon, or sardines.

Fats that are less healthy for us are often hidden along with sugar in some of the foods we eat such as biscuits, cakes, and crisps so be mindful of this and try to reduce the amounts of these foods that you consume.

Fluids

Aim to drink 6-8 glasses of un-caffeinated fluid per day to stay well hydrated. Drinking enough water can prevent bladder irritation. If you suffer from urinary incontinence, reducing consumption of caffeinated beverages like tea and coffee can help. If you wake often during the night to urinate it may be helpful to avoid drinks within an hour or two before bed.



Food Labels

Calories

Calories are a measure of how much **energy** food and drinks contain and are usually measured in kcal. You might see this information near the top of nutritional tables on food packaging. The amount of energy you need will depend on:

- your age – for example, growing children and teenagers may need more energy.
- your lifestyle – for example, how active you are.
- your size – your height and weight can affect how quickly you use energy.

Our bodies need energy to keep us alive and our organs functioning normally. When we eat and drink, we put energy into our bodies.

An important part of a healthy diet is balancing the energy we put into our bodies with the energy we use. For example, the more physical activity we do the more energy we will use.

To maintain a stable weight, the energy you put into your body must be the same as the energy you use throughout the day through normal bodily functions and physical activity.

One of the most troublesome side-effects of ADT is an increase in undesirable body weight (increased body fat). The exact reasons for this are uncertain, but changes in the body's ability to deal with high calorie food substances seem to be the underlying cause.

The food substances that are particularly high in energy are alcohol (beer, wine), foods high in sugar, especially refined sugar (sweets, biscuits, cakes) and fatty foods (double cream, untrimmed red meat).

You can find out much more about calories on the NHS live-well website here: <https://www.nhs.uk/live-well/healthy-weight/understanding-calories/#calories-and-energy-balance>

Traffic lights

In the UK, most supermarkets and major food manufacturers provide food labels on their food or drink products which contain nutritional information to ensure we are better informed about the food and drinks that we buy and consume.

Using food labels when shopping can help you make healthier choices by comparing the nutritional content of similar products. Food and drink labels will present information per 100g/ 100ml, per portion or both so be sure to check the format before you compare products.

Food labels will display:

- Energy (kJ and kcal) only

OR

- Energy (kJ and kcal) only
- Fat
- Saturated Fat
- Sugars (total sugars)
- Salt

To make comparing products easier, food labels are often colour-coded as red, amber, or green and work similarly to a traffic light. They also provide a percentage which shows you the proportion of each nutrient the product contains towards your total daily allowance.

What does green mean?	What does amber mean?	What does red mean?
Green indicates that a food has healthy levels of that nutrient and generally a healthier food or drink to choose.	Amber indicates that a product is neither high nor low in that specific nutrient. You can eat foods with all or mostly amber on the label most of the time.	Red indicates that a product has more unhealthy amounts of a particular nutrient. Try to reduce intake of foods with lots of red labels. When these products are eaten try to have them less often and in small amounts.
When choosing between similar products, try to opt for more greens and ambers , and fewer reds		

Portion sizes

A portion size can be defined as the amount of food served by you, a restaurant or food producer to be consumed at one eating occasion. Research has shown that the more food that we are served, the more that we will eat. If you consume more energy than you use, then you are at an increased risk of gaining weight.

In the UK, portion size recommendations for adults are available online and are often displayed on food packaging. Portion size recommendations on food packaging are based on an average intake of 2000 calories per day. If you are tall or very active you may need slightly larger portion sizes. If you are small or need to lose weight, you may need smaller than recommended portion sizes.

Where information on food packaging is not available you may be able to use the size of your hand as an estimate of an appropriate portion size for you. Please see examples below:



One handful



Two thumbs



One fist

Food	Portion size	How to measure
Breakfast cereal	40g	About 3 handfuls
Plain pasta - dry	75g	2 handfuls
Chicken breast	160g	About half the size of your hand
Hard cheese	30g	About the size of two thumbs
Small fruit	80g	2 plumbs, 2 satsumas, 7 strawberries
Dried fruit		One heaped serving spoon
Green vegetables	80g	Four heaped serving spoons

More information can be found at www.nutrition.org.uk/healthyliving/find-your-balance

Healthy food choices

ADT can increase your risk of developing diseases such as heart disease, strokes, or type-2 diabetes, and make it easier for you to put on weight. High energy dense foods such as sugary and fatty foods should be eaten in moderation as they can also contain high levels of salt.

You might want to try replacing these foods with healthier options, and this may be easier than you think:

- Check food labels on the items you buy in the supermarket - avoid foods high in saturated fat and salt (marked as red on the label)
- You could use vegetable oils instead of butter or lard when cooking, use low fat spreads on sandwiches and reduce the amount you use.
- You could start to replace snacks such as crisps or biscuits with fruit or unsalted nuts.
- You could remove skin and fat from your meat.

Using supplements

You might have heard that taking supplements or other remedies (e.g., lycopene or green tea) can help to treat prostate cancer and its symptoms. However, there is no strong evidence to support taking supplements or herbal remedies to slow down cancer growth or prevent prostate cancer from returning. You should always consult your doctor before taking any supplements as some may be harmful or interfere with your treatment. It is helpful to remember that anyone can post nutritional advice online without a nutritional qualification, so be cautious when reading advice on unfamiliar websites.

There is no such thing as a 'superfood'.

You may have also heard about red wine being beneficial, while there may be some health benefits in the nutrients in wine, it is still an alcoholic beverage and is not recommended to be drunk often. See page 30 for more information.

Bone health

Both calcium and vitamin D are important to maintain healthy bones. Side effects of ADT can cause thinning of the bones; as such it is important for you to get enough calcium (at least 700mg) and vitamin D (10µg). We get vitamin D from some foods in

our diet such as oily fish, egg yolks and fortified cereals. We get most of our vitamin D from the sunlight between March and October, so if you can, getting outside is a great way to top up on vitamin D.

Due to the increased need for calcium and vitamin D for people on ADT, your doctor may recommend a supplement. If you think you might not be getting enough through your diet, then speak with your doctor about this, but never take supplements without consulting your doctor first.



Alcohol

Reducing your alcohol intake can have a variety of benefits and can help towards reducing your calorie intake. A pint of 4% lager can contain 180 calories, which is about the same as 3 ginger nut biscuits, a packet of crisps, or a slice of pizza. Drinking too much alcohol can also raise your risk of developing osteoporosis and may make urinary symptoms worse.

It is recommended that men should aim to drink no more than 14 units of alcohol a week, and it is good to have some days where you don't drink alcohol at all. Please see some examples below:

- A pint of 4% beer contains 2-3 units.
- A 175ml glass of 12% wine contains 2 units.
- A single 25ml measure of spirit is 1 unit.

It may be unsafe for you to drink alcohol because of your treatment, so we recommend chatting to your doctor or nurse about this if you have not already.

Prostate cancer and pre-existing diabetes

If you have diabetes (type 1 or 2), and have recently been diagnosed with prostate cancer, you may be wondering whether you need to modify your diet further. Below we provide answers to some frequently asked questions that we hope you might find helpful. If you have any concerns, please speak to a member of your clinical team who will be able to offer or refer you for advice from a dietician.

Can I still eat fruit and vegetables as they are high in sugar?

Fruit and vegetables are a great source of healthy vitamins. Try to eat a range of colours, and make sure you eat the correct portion sizes. You can still eat fruit, even though it contains sugar, but try to avoid juices and smoothies as they contain less fibre. Fruits such as peaches, raspberries or plums contain lower levels of sugar than bananas and apples. It is more important to remember to avoid foods high in refined sugar such as cake, chocolate, and sugary fizzy drinks.

I need to be careful with my carbohydrate intake; should a third of my plate be starchy food?

Everyone needs some carbohydrate in their diet, and it is important for ensuring your blood glucose levels do not drop too low (hypoglycaemia). Keep an eye on your portion sizes - using a food diary may help. Starchy carbohydrates which are high in fibre are best, as they help to keep your blood glucose and cholesterol under control. Choose wholegrain bread, rice, or pasta, or try cous cous, or other grains. Speak to your diabetes team for further advice on portion sizes and your insulin levels, as this may be different depending on the type of diabetes that you have, or your medication.

Is it safe to exercise if I have diabetes?

Exercise is safe and a great way to maintain a healthy weight. Exercise uses glucose to fuel your body. Diabetes UK recommends checking your glucose levels regularly before, during and after physical activity. Please speak to a member of your diabetes team about the timing of your meals or adjust your insulin when exercising.

You can find out much more about diabetes and exercise here:
www.diabetes.org.uk or speak to a member of your diabetes team.



Recommendations from the World Cancer Research Fund.

<https://www.wcrf-uk.org/health-advice-and-support/living-with-cancer/>

Where can I receive more information?

Walking groups

You might be interested in finding out about walking groups in your local area. These are free, guided walks that are enjoyable and encourage social interaction.

Ramblers

www.ramblers.org.uk

020 3961 3300

Walking for Health

www.walkingforhealth.org.uk

Contact via the website

Sport facilities

You might want to contact one of the UK's sports councils to find out more about the sports facilities near you.

Sport England

www.sportengland.org

Contact via the website

Sport Scotland

www.sportscotland.org.uk

0141 534 6500

Sport Wales

www.sportwales.org.uk

0300 300 3111

Exercises to do at home

For tips and ideas on how to get fit for free, you might want to look on the NHS website.

www.nhs.uk/live-well/exercise/free-fitness-ideas/#green-gyms

Move More events

For information on Move More events in your local area, including support and advice groups.

www.macmillan.org.uk/inyourarea

Mobility and disability organisations

If you struggle with your mobility or are disabled, there are now specific organisations that can offer advice on sport and exercise.

English Federation of Disability Sport (EFDS)

www.activityalliance.org.uk/

01509 227750

Scottish Disability Sport

www.scottishdisabilitysport.com

Regional contact details available online

Disability Sport Wales

www.disabilitysportwales.com

0300 300 3115

Nutrition advice

For more information about understanding calories, portion sizes and eating for a healthy heart.

NHS

www.nhs.uk/live-well/healthy-weight/understanding-calories/#calories-and-energy-balance

British Nutrition Foundation

www.nutrition.org.uk/healthyliving/find-your-balance

British Heart Foundation

www.bhf.org.uk

0300 330 3322

Other useful organisations

British Association for Counselling and Psychotherapy

For information about counselling and therapy in your local area.

www.itsgoodtotalk.org.uk

01455 883300

Email: bacp@bacp.co.uk

Cancer Research UK

For patient information from Cancer Research UK.

www.cancerresearchuk.org

0808 800 4040 – to speak to a nurse

Carers UK

For information and advice for carers, and details of local support groups.

www.carersuk.org

England- 020 7378 4999

Wales - 029 2081 1370

Scotland - 0141 445 3070

Citizens Advice

For advice on financial and legal matters.

You may be able to find contact details for your nearest Citizens Advice Bureau in the phonebook or online.

www.citizensadvice.org.uk

England – 0800 144 8848

Wales – 0800 702 2020

Disability Rights UK

Practical information about disability rights and benefits, including keys for access to toilets across the UK.

www.disabilityrightsuk.org

0330 995 0400

Disabled Living Foundation

Expert advice about equipment and aids for independent living.

www.dlf.org.uk

0300 999 0004

GOV.UK

For information about UK government services, including benefits, employment, and income.

www.gov.uk

Healthtalk.org

Listen and read personal experiences from men with prostate cancer.

www.healthtalk.org

Macmillan Cancer Support

For practical, financial, and emotional support for people with cancer and their families and friends.

www.macmillan.org.uk

0808 8080 00 00

Maggie's Centre

For online support and information on local drop-in centres for cancer information

www.maggies.org

0300 123 1801

Marie Curie

Information about hospice services and nursing services for people in their own home.

www.mariecurie.org.uk

0800 090 2309

Medicines and Healthcare products Regulatory Agency

For information about herbal remedies and reporting unusual side effects.

www.mhra.gov.uk

020 3080 6000

Email: info@mhra.gov.uk

Mind

For information and support with mental health including depression and anxiety.

www.mind.org.uk

0300 123 3393

info@mind.org.uk

National Institute for Health and Care Excellence (NICE)

Treatment guidelines and procedures for the NHS in England and Wales.

www.nice.org.uk

0300 323 0140

National Osteoporosis Society

For information and support for people with weak bones.

www.nos.org.uk

0808 800 0035

NHS choices

Information about health conditions, treatments, and lifestyle.

www.nhs.uk

Penny Brohn UK

Physical, emotional, and spiritual support for people with cancer.

www.pennybrohn.org.uk

0303 3000 118

Prostate Cancer UK

Information about diagnosis, treatment and living with cancer.

www.prostatecanceruk.org

0800 074 8383 – to speak to a specialist nurse

Relate

For relationship advice and counselling and sex therapy.

www.relate.org.uk

Enquiries to be made online

Samaritans

Confidential, emotional support, 24 hours a day.

www.samaritans.org

116 123

STAMINA research team

For study related information.

0114 225 3586

Email: sth.stamina@nhs.net

My key contacts

In this section of the booklet, you can keep a list of your key contacts. A key worker will be allocated to you who will help to co-ordinate your care, identify suitable information for you to read and guide you towards the team members you may need to see. Your key worker is likely to be a clinical nurse specialist, however this varies between hospitals.

My main contact (key worker)

Name:

Job title:

Telephone:

Additional information:

Consultant urologist

Name:

Telephone:

Additional information:

Consultant oncologist

Name:

Telephone:

Additional information:

Other health professionals

General practitioner:

Practise nurse:

Local support groups:

