



Keep a Healthy Body Weight

Evidence linking body fat and cancer has never been stronger.

Body fat increases the risk of the following cancers:

- Bowel
- Oesophagus
- Pancreas
- Kidney
- Endometrium (womb)
- Breast

Why does being overweight cause cancer?

- 1** Excess body fat (especially stored around the waist) can increase hormone levels (oestrogen, androgens and growth hormones) which can cause cancer.
- 2** Fat cells release chemicals that cause a chronic state of inflammation. This can damage cells and encourage cancer growth.

Body Mass Index (BMI)

One of the easiest ways to check if your body weight is in the healthy range is to check your BMI. This can be calculated by dividing weight (kg) by height (m²). A healthy range for men and women is between 18-25.

Waist measurement

We also know that 'where' we store our body fat is important. Scientists have discovered that carrying excess fat around our waist can be particularly harmful. You can easily measure your waist with a tape measure. For men a healthy measurement is 37 inches and for women 32 inches.

Tips for maintaining a healthy body weight

- Choose foods lower in calories, e.g. fruit and vegetables. Often these foods are still very filling due to the water and fibre they contain.
- Keep active. Physical activity burns calories which would otherwise be stored as fat if they are not used up.
- Avoid fast foods and sugary drinks.
- Keep an eye on portion sizes. Only eat when you feel hungry and stop before you feel too full!

Scientists have discovered that carrying excess fat around our waist can be particularly harmful.

Activities

One

Use the tape measure to check your waist measurement

To measure your waist:

- Find the bottom of your ribs and the top of your hip bone
- Breathe out naturally
- Wrap a tape measure around your waist midway between these points to find your measurement

Waist size and risk of health problems

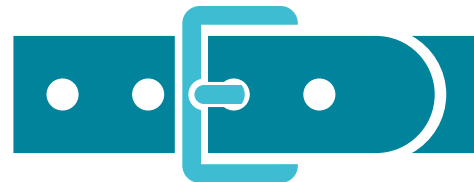
You have a higher risk of health problems if your waist size is:

- more than 37 inches if you're a man
- more than 32 inches if you're a woman

Two

Sugar cube demonstration

1 tablespoon jam	3 cubes
Ben & Jerry's Phish Food 500ml	28 cubes
500ml bottle coke	10.5 cubes
Muller light strawberry 175g	3 cubes
1 apple	3 cubes
1 medium glass milk	2 cubes
1 banana	4 cubes
Large Galaxy bar	14 cubes
Can of coke	7 cubes



2.

Physical Activity

Anyone, at any age, can benefit from exercise - it is never too late to become more active. Keeping active is one of the ways to improve our physical and mental wellbeing. As well as helping to reduce the risk of cancer, being regularly active can also help prevent other diseases such as heart disease, stroke, osteoporosis, arthritis, Type 2 diabetes and some types of dementia.

How much should we be doing?

To reduce your risk of cancer the World Cancer Research Fund recommends being moderately active for at least 30 minutes every day. If 30 minutes seems like a lot, then start with just 5 or 10 minutes a day and slowly build up to 30 minutes or more.

Moderate activity is any activity that makes you feel warm and slightly out of breath.

Tips to increase physical activity at home

- Don't use the remote control - get up to change the channel
- Gardening is great exercise -

planting, weeding and pruning are great ways to stay fit

- Why not try a gentle fitness DVD/video?
- Housework is a great workout - dusting, vacuuming and mopping all count as exercise
- Take a walk to the shop to buy the newspaper every morning

How does exercise reduce cancer risk?

Regular physical activity can:

- Keep hormone levels healthy
- Strengthen our immune system
- Help keep our digestive system moving

- Help maintain a healthy body weight

What about cancer survivors?

Regular physical activity helps cancer survivors to:

- Fight fatigue/tiredness
- Boost muscle strength
- Improve mood
- Possibly helps prevent recurrence

Always check with doctor before commencing a new exercise programme after a cancer diagnosis.



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3.

Eat a variety of fruit, vegetables and wholegrain

You've probably heard it your whole life - 'Eat more fruit and vegetables'! But it helps to know why these foods are so good for you.

Research shows that fruit and vegetables protect against a range of cancers including:

- Mouth
- Pharynx
- Larynx
- Stomach
- Lung
- Pancreas
- Prostate
- Bowel

Why do these foods protect against cancer?

Fruit and vegetables:

- Contain vitamins and minerals which keep our body healthy and strengthen our immune system.
- Contain substances called phytochemicals which can help

to protect cells from damage that may lead to cancer.

- Are high in fibre which helps keep the bowels healthy.
- Help you to maintain a healthy body weight.

A good tip is to always ensure that your plate consists of at least two thirds plant-based foods.



Activity

What does 5 a day look like?

Use real fruits and vegetables to demonstrate what one portion looks like.

1 medium sized fruit
(apple, banana, orange, pear)

1 slice of mango

1 handful of strawberries

1 bowl of salad

3 tablespoons of peas

1 medium sweet potato

1 tablespoon of small fruit

16 sugar snap peas



4.

Red and processed meats

In moderation, red meat is a valuable source of nutrients and can be part of a healthy balanced diet; however, it is important not to eat too much.

How much is too much?

It is recommended that we eat less than 500g (1lb 2oz) of red meat (cooked) per week.

What is the link with cancer?

Red and processed meat have been linked to increased risk of bowel cancer.

How does red and processed meat cause cancer?

- Red meat contains substances that are linked to bowel cancer, e.g. haem. Haem gives red meat its colour and has been shown to damage the lining of the bowel.
- Studies show that people who eat a lot of red meat tend to eat less

plant based foods, e.g. vegetables, and therefore may miss out on important nutrients.

- When meat is preserved by smoking, curing or salting, or by the addition of preservatives, cancer-causing substances can be formed. These can damage cells leading to the development of cancer.

TIPS:

- Ham sandwich > tuna sandwich
- Grilled pork chop > grilled fish
- Mince > subsidise with some beans/pulses

Activity

What does 500g look like?

Medium portion of roast beef	90g
Quarter Pounder Burger	90g
Medium steak	145g
Lamb chop	75g
Mince	100g





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5.

Fibre

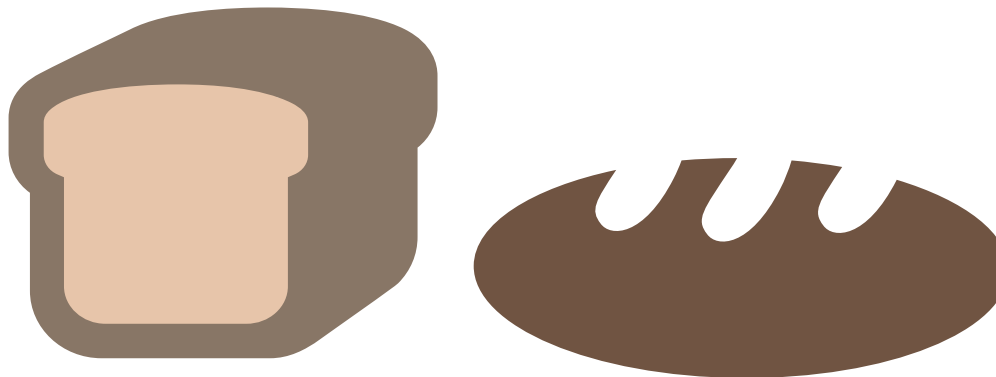
Ensuring that your daily diet is high in fibre is another great way to reduce the risk of cancer.

Why is fibre important?

- Fibre helps to remove waste materials from the body. It helps prevent constipation and keeps the bowels healthy.
- Fibre helps you to feel fuller for longer. This helps weight management through reducing the urge to snack.

Try making these healthy swaps:

- White bread
 - > **brown/wholemeal bread**
- White pasta/rice
 - > **wholemeal version**
- Potato
 - > **skin on potato**
- Cornflakes
 - > **bran flakes**



Activity

This simple experiment highlights the need for fluids to accompany fibre in your diet.

Take a bowl with two wheat biscuit cereal.

Add just a little milk.

Leave 5-10 minutes.

Hold the bowl upside down.

The cereal should remain in the bowl.

This emphasises the need for liquid to accompany fibre to ensure easy passage of waste materials through the digestive system.



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6.

Limit consumption of salty foods

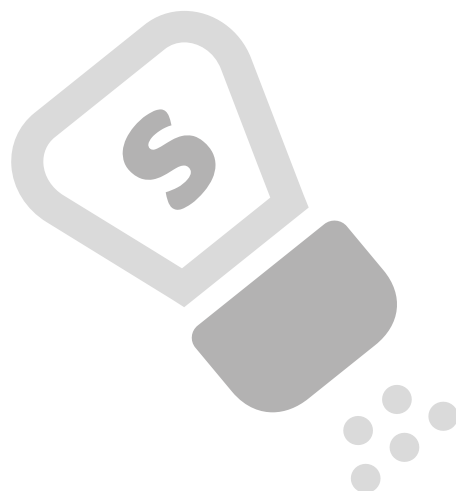
Studies have shown that a diet high in salt can damage the lining of the stomach which may increase the risk of stomach cancer. In fact, it has been suggested that 14% of stomach cancers are linked to salt.

How much salt is safe?

The government recommends that we should eat less than 6g salt every day. This is approximately one teaspoonful.

Tips to reduce your salt intake

- 1** Choose home cooked meals over shop bought/fast food options. When you cook your own meals you can limit the amount of salt. Many food companies add extra salt to improve the flavour, texture or shelf life of foods.
- 2** Remove the salt cellar from the dinner table. If the salt cellar is out of sight it helps lessen the automatic habit of sprinkling salt on meals.
- 3** Use healthier options to flavour your meals e.g. lemon or garlic.



Activity

Take a look at the labels on some of the foods you commonly buy and eat.

Are you surprised by how much salt is in these?

Remember that the recommended daily salt intake is less than 6g.





7.

Alcohol

For many people, having an alcoholic drink while out with friends or family, or when relaxing at home, is an enjoyable part of life. However, there are some serious health effects of too much alcohol; one of these is an increased cancer risk.

The World Cancer Research Fund states that *if consumed at all*, alcoholic drinks should be limited to two drinks a day for men and one drink a day for females.

What cancer is alcohol linked to?

There is convincing evidence that alcohol increases the risk of developing the following cancers:

- Oesophagus
- Mouth
- Throat
- Breast
- Bowel (men)
- Liver- probable
- Bowel (women)- probable

How does alcohol cause cancer?

- When our bodies break down alcohol it damages the DNA in our cells. It also produces cancer causing compounds and raises the level of some hormones, all of which can increase cancer risk.
- Alcohol also leads to increased body weight as it is often high in calories.

Tips for sensible drinking

- Don't drink alcohol when you are thirsty as you are likely to drink more
- On an evening out, alternate between alcoholic drinks and low-calorie soft drinks
- Dilute alcoholic drinks with low-calorie mixers e.g. opt for a white wine spritzer with soda water
- Aim to keep at least a few nights a week alcohol free

Activity

What does one drink look like?



½ pint normal strength beer/lager/ cider
(3-5% ABV)



1 x 25 ml measure of spirit – vodka, whiskey
(40% ABV)



1 small glass wine
-125 ml
(12-13% ABV)



8.

Smoking

Most people are aware that smoking is bad for your health. It is one of the largest preventable causes of premature death in the UK. It's linked to a range of serious and often fatal conditions; including heart disease and of course lung cancer.

Why is smoking harmful to your health?

Scientists have found there to be approximately 4000 different chemicals in cigarette smoke. When you smoke, these chemicals come into your lungs through the smoke. When the smoke condenses in your lungs it forms tar. The chemicals then move from the tar into your bloodstream. Many of these chemicals have been shown to damage the body's DNA and change important genes. These changes can lead to the development of cancer.

What are the chemicals in cigarette smoke?

Lead-210 (radioactive isotope)
Polonium-210 (radioactive fallout)
Formaldehyde (embalming fluid)
Nitric acid (corrosive agent)
Cadmium (batteries/smelting fumes)

Hexamine (barbeque lighter)
Lead (roofing)
Stearic acid (candle wax)
Methanol (jet/rocket fuel)
Hydrogen sulphide (stink bomb gas)
Hydrogen cyanide (poison in gas chamber)
Arsenic (rat poison)
Toluene (industrial solvent)
Sulphuric acid (power station emissions)

There is good news though. As soon as you stop smoking the health benefits begin.

20 minutes Your heart rate and blood pressure return to normal
8 hours Nicotine and carbon monoxide start to leave your body and oxygen levels return to normal
24 hours Your lungs start to clear out mucus and other smoking debris

48 hours Nicotine has been eliminated from your body and your sense of smell and taste both improve


2 - 12 weeks Exercise becomes easier and your breathing improves

3 - 9 months Any coughs, wheezing and breathing problems are reduced as your lungs repair

1 year Your risk of coronary heart disease is now half that of a smoker

Surveys show that about two thirds of smokers would like to stop smoking.

Tobacco causes 90% of lung cancers and is implicated in cancer of the mouth, pharynx, larynx, oesophagus, pancreas, cervix, kidney, liver and bladder.



It's difficult to watch someone you care about smoke. However, smokers need to make the decision to quit because they want to, not because someone else wants them to. They might stop smoking for your sake, but they won't stay stopped unless they're doing it for themselves.

Having said this, stopping smoking is not something that should be attempted alone. Friends and family can be a great form of support to help get the individual through the tough times. There is a lot of free support on offer from local pharmacies, health centres and even the NI Smoker's Helpline - **0808 812 8008**.

Support available

Stop smoking services provide free local support to help anyone who is ready to quit. These services can be found all over Northern Ireland. Smokers who use such services are roughly four times more likely to quit.

Northern Ireland Smokers' Helpline 0808 812 8008

Cancer Focus NI's specially trained advisers provide telephone support to smokers who want to quit. They will also post a free Quit Kit resource pack. These advisers will also be able to direct the smoker to support in their own area, e.g. pharmacy, health centre.

Stop smoking services

A lot of local pharmacies and health centres now have staff trained as Smoking Cessation Specialists. These staff can provide one to one and group support for stopping smoking.

NRT and prescription drugs

When used correctly, nicotine replacement therapy (NRT) can double your chances of quitting successfully. There is a wide variety of NRT to choose from. This means that smokers can choose the therapy that will work best for them and their smoking habit.

Nicotine replacement therapy

Patches
Gum
Inhalator
Nasal Spray
Microtab (sublingual)
Lozenge
Mouth Spray
Nicotine Strips

Prescription drugs

Champix® (varenicline tartrate)
Zyban® (bupropion)

Activities

Cancer Focus Northern Ireland health promotion displays.

One Jar of tar

This is the amount of tar which would remain in your lungs if you smoked 20 cigarettes a day for just one year.

Imagine how this would build up over twenty years... or even 40 years of smoking.

Two Chemicals in cigarette smoke

The tar contains many harmful chemicals which can cause ill health - including cancer. There may be up to 4000 chemicals in cigarette smoke, some of these are shown in the display board.

9.

Sun safety

Over-exposure to ultra-violet (UV) radiation is the main cause of most skin cancers, including melanoma.

Skin cancer is the most common type of cancer diagnosed in Northern Ireland and is becoming more common. This is partly due to more sun exposure (sun bathing) and partly due to the increasing number of older people in the population.

Melanoma is the most serious form of skin cancer.

In Northern Ireland, survival from malignant melanoma has improved over time. Current relative survival rates are estimated at 96% for men and 99% for women after 1 year.

Risk factors

- Fair skinned people with light coloured hair and eyes, or those more likely to burn than tan, are more at risk of skin cancer.
- A family history of melanoma.
- Having a large number of moles (50 – 100) or multiple unusual

moles (large, uneven colour or irregular border) can indicate a higher risk of developing malignant melanoma.

- History of severe sunburn especially in childhood has been linked to both malignant melanoma and non melanoma skin cancer incidence.
- People with reduced immunity are also of greater risk, e.g. due to an organ transplant.

Skin Protection from UV Rays

Over-exposure to ultraviolet (UV) radiation either from natural sunlight or from artificial sources such as sunbeds is the cause of 80% of skin cancers.

There are lots of ways to take care in the sun and reduce the risk of this type of cancer.

Some tips are outlined below:

1 Shade

Staying in the shade is the most effective and inexpensive way to protect yourself from the sun.

2 Clothing

Clothing is one of the best ways to protect your skin from the sun, e.g. wear a long sleeved shirt whilst in the sun.

3 Eye Protection

Eyes are also vulnerable to damage from exposure to UV rays. Damage from the sun or sunbeds might not be seen or felt but over long periods it may result in more serious damage to the eyes, including skin cancer of the eyelids and around the eyes.

4 Hats

Common sites of skin cancers are the neck, temple, face, nose and ears. Wearing a hat is a great way to keep these areas safe.



5 Sunscreen

Ideally sunscreen should be used along with other forms of sun-protection. Make sure sunscreen has at least Sun Protection Factor of 15 (UVB), and at least a 4 star UVA protection. Apply your sunscreen generously at least 30 minutes before going outdoors. Reapply at least every 2 hours.

How to check your skin

Survival from skin cancer, especially malignant melanoma, is greatly improved if detected early and treated appropriately. You should regularly check for changes. It may also help to get someone to check your back.

Signs of Skin Cancer



Normal

A mole or freckle which has always been the same



Asymmetry

One side of the mole or freckle is different to the other



Border

The border may become irregular, scalloped or poorly defined

Signs and symptoms include:

- A new growth or sore that does not heal in 3-4 weeks.
- A sore that continues to itch, scab or bleed.
- Unexplained and continued ulceration.

The general checklist for moles is:

Major Signs:

- Change in size
- Change in shape
- Change in colour

Minor Signs:

- Inflammation
- Crusting or bleeding
- Sensory change e.g. itching or tingling
- Diameter over 7mm



Bleeding

The mole or freckle may start to bleed, ooze or crust



Colour

The mole or freckle may display varying shades of tan, brown, black, or sometimes red, white or blue



Diameter

The diameter is larger than the blunt end of a pencil (7mm)

Activities

UV beads are plastic beads that change colour in response to UV light.

Experiment:

- Use the beads to show the effects of UV light.
- Watch how the beads change from a pale/white colour indoors to a strong range of colours when taken outside, especially if the sun is shining.
- If it is a dull day it is interesting to note how the beads will still change colour as the UV light shines through the clouds.
- Cover some beads in sun cream to see if this reduces the degree of colour change thus showing the effectiveness of sun cream.