

Understanding cancer.

Your body is made up of billions of cells grouped together to make up the tissues and organs of your body. Cancer is a disease of the body's cells. It is caused by normal cells changing so that they grow in an uncontrolled way. This factsheet explores four types of cancer, breast, lung, large bowel and prostate, that account for over half of all new cancer cases in the UK.



How does cancer develop?

Each cell in the body has a centre called the nucleus, containing genes which control the cells growth and reproduction. The genes are in effect the cell's molecular instruction manual telling the cell what to do. Normally the genes make sure that cells grow and reproduce in an orderly and controlled way. If the system goes wrong for any reason, the usual result is that the cell dies. Rarely, the system goes wrong in a way that allows a cell to keep on dividing until a lump called a 'tumour' is formed. Tumours can be 'benign', meaning it is not cancer; or 'malignant', meaning it is cancerous. It is their ability to spread that makes cancer cells harmful. If a cancer is not treated, it can spread into the organs near to where it started growing.

What causes cancer?

A small proportion of cancer cases are caused by inherited faulty genes – it is estimated that inherited factors cause only 5-10% of all cancers.

The vast majority of cancers are triggered by damage to the genes that accumulates during a person's lifetime. Cancer Research UK state that 4 in 10 cancer cases can be prevented largely through lifestyle changes such as eating healthily, being a healthy weight, not smoking, drinking less alcohol and getting regular exercise.

Breast cancer

Breast cancer is the most common type of cancer in the UK. Most women diagnosed with breast cancer are over 50, but younger women can also get breast cancer. About one in eight women are diagnosed with breast cancer during their lifetime. There's a good chance of recovery if it's detected in its early stages.

For this reason, it's vital that women check their breasts regularly for any changes and always get any changes examined by their GP. These symptoms include:

- a change in the size or shape of one or both breasts
- discharge from either of your nipples, which may be streaked with blood
- a lump or swelling in either of your armpits
- dimpling on the skin of your breasts
- a rash on or around your nipple
- a change in the appearance of your nipple, such as becoming sunken into your breast

Lung cancer

Lung cancer is one of the most common and serious types of cancer. Around 44,500 people are diagnosed with the condition every year in the UK. There are usually no signs or symptoms in the early stages of lung cancer, but many people with the condition eventually develop symptoms including:

- a persistent cough
- coughing up blood
- persistent breathlessness
- unexplained tiredness and weight loss
- an ache or pain when breathing or coughing

You should see your GP if you have these symptoms.

Large bowel cancer

Bowel cancer is one of the most common types of cancer diagnosed in the UK. Most people diagnosed with it are over the age of 60. The three main symptoms of bowel cancer are:

- persistent blood in the stools – that occurs for no obvious reason or is associated with a change in bowel habit
- a persistent change in your bowel habit – which usually means going more often, with looser stools
- persistent lower abdominal (tummy) pain, bloating or discomfort – that's always caused by eating and may be associated with loss of appetite or significant unintentional weight loss

You should see your GP if you have these symptoms.

Prostate cancer

In the UK, about 1 in 8 men will get prostate cancer at some point in their lives. Men aged 50 or over, men with a family history of prostate cancer and black men are more at risk of getting prostate cancer.

- changes in the way you urinate
- back pain, hip pain or pelvis pain
- problems getting or keeping an erection
- blood in the urine or semen
- unexplained weight loss

You should see your GP if you have these symptoms.