

## Cancer and the genome

### Key facts

- Cancer is a disease of the genome.
- Cells can become cancerous due to specific changes in the DNA, resulting in abnormal growth and division.
- In the majority of cases, these changes occur within a person's lifetime, although in some rare cases these changes can be inherited.
- Comparing the genome of cancer cells with those of healthy cells can help to inform the diagnosis, prognosis and even the treatment of the disease.

### Did you know?

Around 5%-10% of cancers are associated with inherited changes to the DNA. Just because an individual has inherited a change does not mean they will develop cancer. Further changes have to occur within their lifetime.

Angelina Jolie chose to have prophylactic surgery after it was confirmed that she had inherited a variant in her genome that increased her chances of developing breast and ovarian cancer.

### Find out more

For information about cancer and genomics, visit: [www.bit.ly/CRUK-genes](http://www.bit.ly/CRUK-genes)

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[www.hee.nhs.uk](http://www.hee.nhs.uk)

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