Section Eight: Resources

Tekiona Waru
Rauemi

What is cancer?

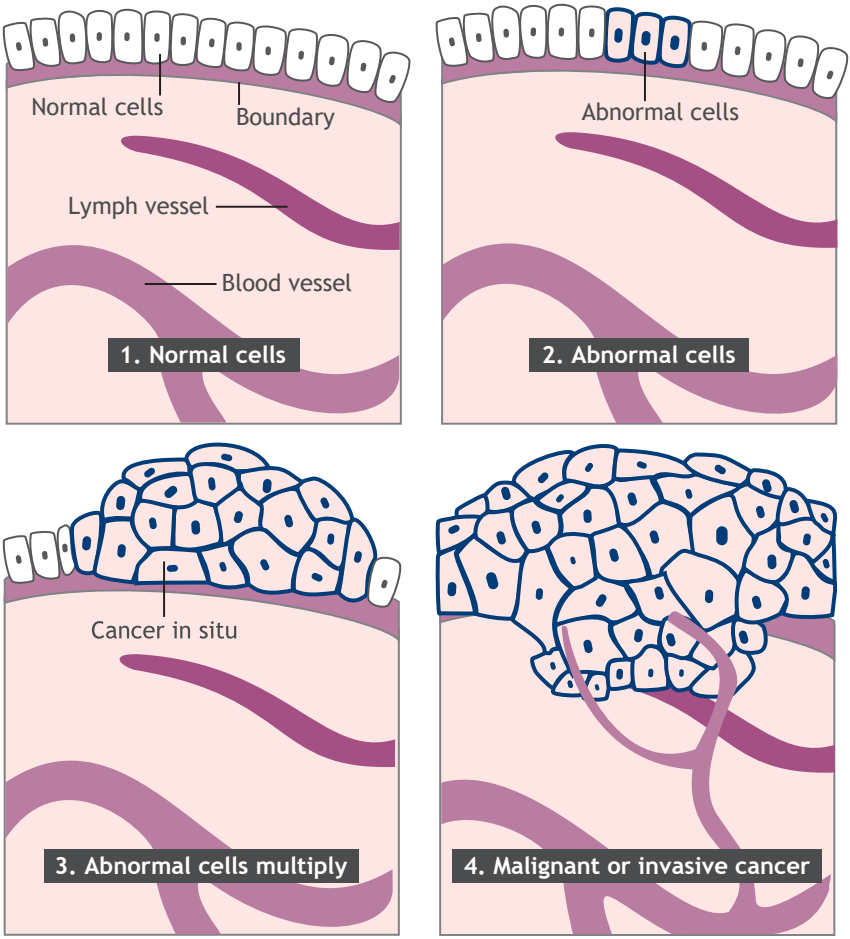
Cancer is a disease of the body's cells. It starts in our genes. Our bodies are constantly making new cells to allow us to grow, replace worn-out cells or heal damaged cells after an injury.

The process of making new cells is controlled by certain genes: the codes that tell our cells how to grow and behave. Cancers are caused by damage to these genes. These changes usually happen during our lifetime.

In a very small number of families, damaged genes may be passed through the generations. While these people will have an increased risk of developing cancer, it does not mean they will definitely get cancer.

How cancer starts

Tumours can be benign (not cancerous) or malignant (cancerous). Benign tumours do not spread to other parts of the body.



How cancer spreads

A malignant tumour is made up of cancer cells. When it first develops, a malignant tumour is usually confined to its original site. This is known as the primary site. Some tumours can become quite large within their organ of origin, for example, the lung or breast. With growth, the tumour may spread beyond the original organ boundaries and into surrounding tissues. This is called locally advanced cancer.

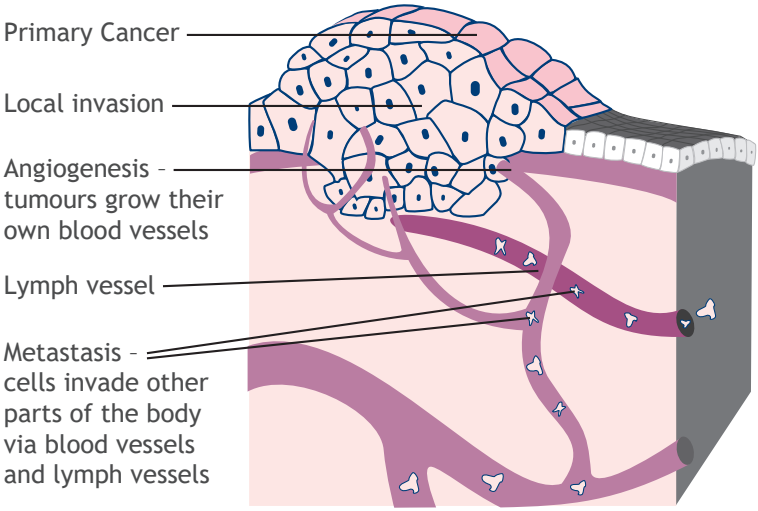
Sometimes cells move away from the original (primary) cancer through the bloodstream or lymphatic systems and start to grow in other body organs. When these cells reach a new site they may form another lump or mass. This is called a secondary cancer or metastasis. For example,if lung cancer spreads to the bone, it is called a bone secondary (or metastasis).

If the only place of spread is to nearby lymph nodes, this is called regional nodal spread. Your cancer doctor will still refer to it as lung cancer even though it has spread to another part of your body.

The sort of treatment you are offered for cancer depends on the type of cancer, where it began and whether it has spread. Your cancer doctor will also take into account other things about you, such as your age and general health.

Treatment for cancer includes surgery, radiation treatment or chemotherapy (drug treatment). Immune therapy or targeted treatments, which are now used to treat some cancers, will become more important in the future.

Sometimes only one of these types of treatment is used for a cancer. Sometimes more than one is used.



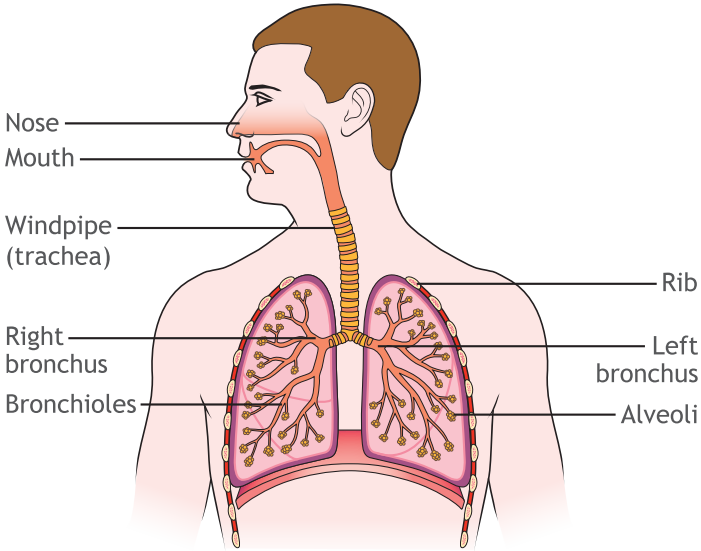
How your lungs work

The lungs are part of the respiratory system that helps you to breathe. The respiratory system also includes the nose, mouth, windpipe (trachea) and airways to each lung — known as the large airways (bronchi) and small airways (bronchioles).

Several parts of the body lie in the space between the lungs, called the mediastinum, including the:

- heart and large blood vessels
- windpipe (trachea)
- lymph glands (also known as lymph nodes).

The respiratory system



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The lungs

There are two lungs, one on each side of the chest, which are protected by the ribcage.

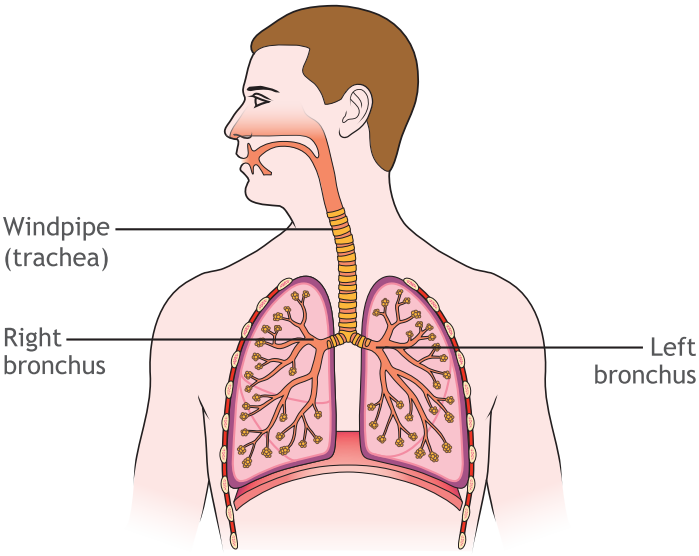
Each lung has different sections, called lobes. The left lung has two lobes (to make space for the heart) and the right lung has three lobes.

The lungs are separated from the stomach and liver by the diaphragm – a wide, thin muscle that helps with breathing. The lungs are surrounded by the pleura. The pleura has an outer layer and an inner layer. Each layer of pleura is about as thin as plastic wrap. Between the two layers is the pleural space (cavity), which normally holds a thin fluid. This fluid allows the two layers of pleura to slide against each other so your lungs can move smoothly against the chest wall as you breathe.

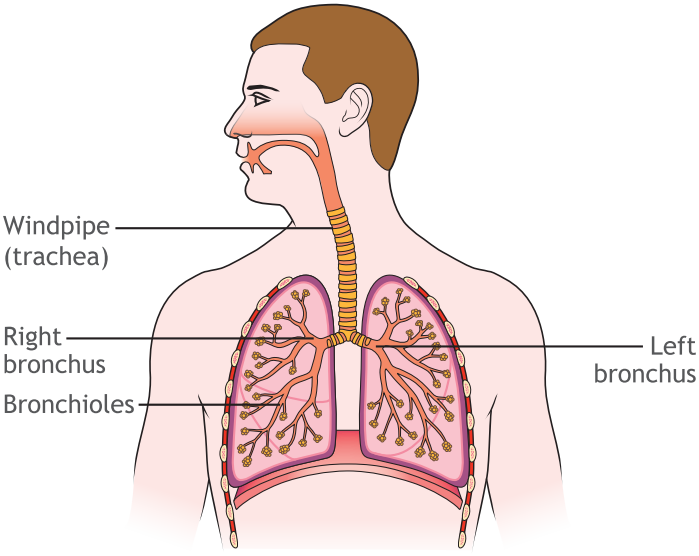
How you breathe

The lungs do not move on their own. The muscles between the ribs and the diaphragm make the chest expand and contract, pulling and pushing air into and out of the lungs.

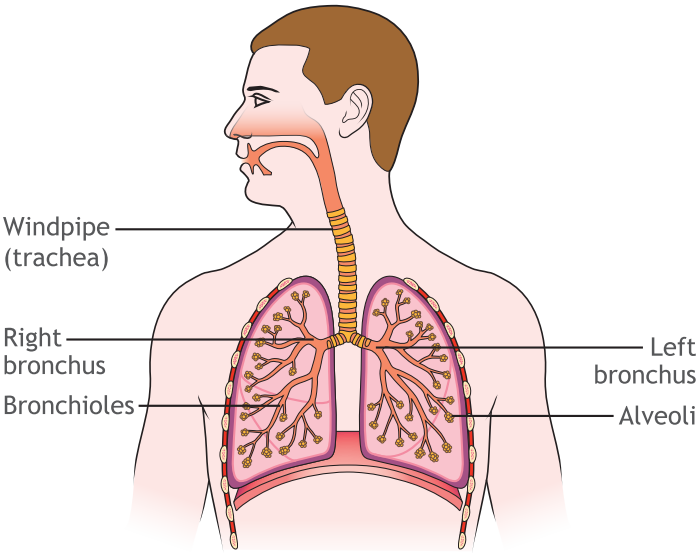
When we breathe in, air goes through the nose or mouth, into the throat, down the windpipe, and through the bronchus and bronchioles until it reaches the alveoli.



The windpipe divides into two airways. These are called the right bronchus and left bronchus.



Each bronchus divides into even smaller tubes called bronchioles.



Each bronchiole ends up in tiny, bubble-like air sacs called alveoli.

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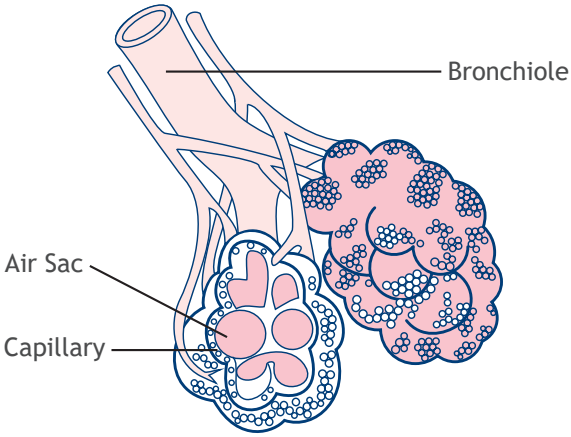
Blood flows through very small blood vessels (capillaries) in the thin walls of the alveoli. This allows oxygen to move from the air we breathe into the blood, and carbon dioxide (a waste product) to move from blood to air that is breathed out.

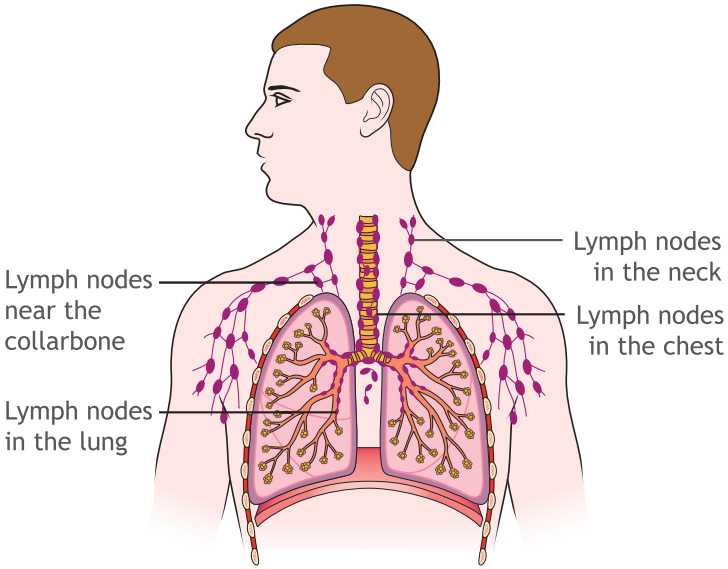
Alveoli



The lymphatic system

Sometimes cancer can spread through the lymphatic system. The lymphatic system is part of the immune system. It is a network of small vessels connected to lymph nodes (glands), which help filter unwanted toxins and waste from the body.

If the cancer cells spread outside the lungs, they are most likely to go to lymph nodes nearby in the chest.



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Suggested websites

You may be interested in looking for information about lung cancer on the internet. While there are very good websites, be aware that some websites may provide incorrect information.

We recommend that you begin with the **Cancer Society's website** (cancer.org.nz) and use our links to other good cancer websites, or visit the following websites:

Lung Foundation New Zealand
www.lungfoundation.org.nz/

Lung Foundation Australia
www.lungfoundation.com.au

Cancer Council Australia
www.cancer.org.au

Macmillan Cancer Support (UK)
www.macmillancancersupport.org.uk

The suggested websites are not maintained by the Cancer Society of New Zealand. We only suggest sites we believe offer credible and reliable information, but we cannot guarantee that the information on these websites is correct, up-to-date or evidence-based medical information.

Suggested resources

Information sheets

Applying to work and income

Benefits and entitlements

Cancer and insurance, employment and legal issues

Coping with waiting

Healthy eating and cancer treatment

Making decisions about treatment

Searching the internet

Sex and cancer

Spirituality, wairuatanga and cancer

Supporting young adult children when you have cancer

Telling others about your diagnosis

Your cancer treatment team

Booklets

Cancer in the Family

Eating Well with Cancer

Emotions and Cancer

Living Well with Cancer

Sex and Cancer

Supporting Someone with Cancer

Cancer Society information and support services

The Cancer Information Helpline is a Cancer Society phone line where you can talk about your concerns and needs with trained health professionals. Phone the Cancer Information Helpline (0800 CANCER 226 237).

Your local Cancer Society offers a range of services for people with cancer and their families/whānau. These may include:

- information and support
- volunteer drivers providing transport to treatment
- accommodation while you are having treatment away from home.

The range of services offered differs in each region, contact your local Cancer Society to find out what is available in your area.

Auckland/Northland

Auckland
09 308 0160
Domain Lodge
1 Boyle Crescent
Grafton

Whangarei
09 437 5593
Daffodil House
73 Kamo Road
Kensington

information@akcansoc.org.nz
Northland@akcansoc.org.nz

Central Districts

Palmerston North
06 356 5355
Young House (District office)
127 Ruahine Street

Whanganui
06 348 7402
3 Koromiko Road

New Plymouth
06 757 3006
TSB Cancer Support Centre
71 Lorna Street
Westown

Gisborne
06 867 1795
Morris Adair Building
Gisborne Hospital

Hastings
06 876 7638
310 Orchard Road

Palmerston North
06 356 355
Addis House
135 Ruahine Street

Waikato/Bay of Plenty

Hamilton
07 838 2027 or 0800 22 77 44
Divisional Office (Hamilton)
511 Grey Street
admin@cancersociety.org.nz

Rotorua
07 349 4556 or 0800 22 77 44
1235 Ranolf Street
rotorua@cancersociety.org.nz

Tauranga
07 571 2035 or 0800 22 77 44
111 Cameron Road
tauranga@cancersociety.org.nz

Wellington

Wellington
04 389 8421
52-62 Riddiford Street

Paraparaumu
04 298 8514
27 Kāpiti Road

Masterton
06 378 8039
37 Te Ore Ore Road

Nelson
03 539 1137
102 Hardy Street

Blenheim
03 579 4379
The Forum Building
Market Street

info@cancersoc.org.nz

Canterbury-West Coast

Christchurch
03 379 5835
97 Fitzgerald Avenue

Greymouth
03 768 9557
98 High Street

Timaru
03 688 0124
32 Memorial Avenue

Rolleston
03 925 9708
6B Kidman Street

Ashburton
03 307 7691
122 Kermode Street

contact@cancercwc.org.nz
info@cancercwc.org.nz

Otago and Southland

Dunedin
03 477 7447
283 Great King Street
SupportiveCare@cansoc.org.nz

Oamaru
03 434 3284 or 027 674 4200
Waitaki District Community House
100 Thames Street

Balclutha
03 418 3916 or 027 277 7632
Arcade 84
5/37 Clyde Street

Alexandra
03 440 0754 or 027 580 0640
Alexandra Community House Office
14-20 Centennial Avenue

Wanaka
Wanaka Community House
40 McDougall Street

Queenstown
03 442 4281 or 027 536 0066
112B Aurum House
1092 Frankton Road

Southland
149 Spey Street

Invercargill
03 218 4108

National Office

04 494 7270
39 The Terrace
Wellington
admin@cancer.org.nz

Acknowledgements

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Action Plan for Breathlessness

When you are aware of your breathlessness:

1. Tell yourself to stop – pause and breathe out slowly through your mouth.
2. Use positive, reassuring self-talk. (For example, "This will pass, slow down…calm down…I can slow my breathing.")
3. Sigh slowly and gently…letting out a soft sound while you flop and drop your shoulders.
4. Focus on slow and gentle breathing. Make your out-breath twice as long as your in-breath.
5. Put yourself in a position that supports your head and shoulders to relax comfortably (elbows resting on knees or sit/recline well supported).
6. Remind yourself, "Slow down…calm…relax…it will be okay" because you can slow your breathing and get enough air. Allow yourself to feel comfortable and at ease.
7. Breathe out slowly through 'pursed' lips in the shape of an 'O' (as if you were going to blow gently through a straw). This helps you breathe out the old air from your lungs, making room for fresh air.
8. Continue to breathe slowly and gently.
9. Your breathing is slowing. Allow your mind to focus on a feeling or place that helps you feel comfortable and relaxed. Take yourself there while you continue to breathe out slowly in a position that is comfortable for you. Let your body become heavy and loose.

When your breathing has settled:

- Think about breathing in, 'smelling the flowers', through your nose.
- Breathe out slowly and softly through your nose or breathe out slowly and softly through your mouth – enough to lightly flicker a candle flame.
- Feel your breathing deep and low in your body.