



# Thymoma and thymic carcinoma



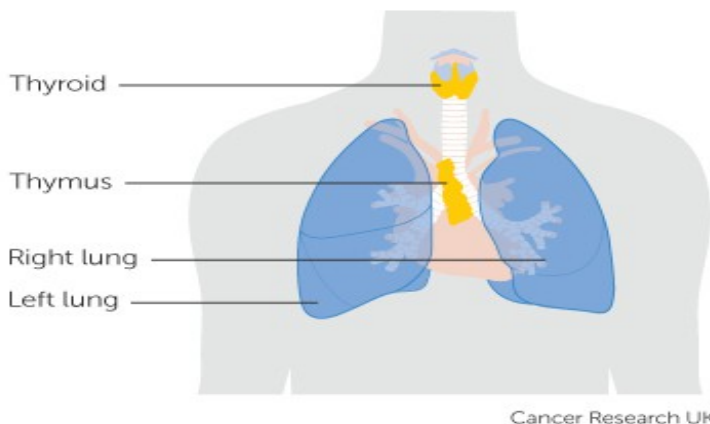
# Contents

<b>3</b>	<b>The thymus gland</b>
<b>4</b>	<b>Thymoma</b>
<b>5</b>	<b>Thymic carcinoma</b>
<b>6</b>	<b>Staging</b>
<b>6</b>	<b>Surgery</b>
<b>7</b>	<b>Radiotherapy and chemoradiation</b>
<b>9</b>	<b>Chemotherapy</b>
<b>10</b>	<b>Anti-hormonal treatments</b>
<b>10</b>	<b>Trials</b>
<b>11</b>	<b>After treatment</b>
<b>12</b>	<b>Notes</b>
<b>14</b>	<b>Further information</b>
<b>15</b>	<b>Contact us</b>

# The thymus gland

The thymus is a gland in the chest. It is at its largest in adolescence and then gradually shrinks away throughout adulthood, being replaced with fatty tissue.

It is involved in the development of white blood cells called lymphocytes. These cells help to fight infection as part of the body's immune system.



Thymus gland cancer is rare and the cause is unknown. Most tumours in the thymus are called thymoma. There is also a much rarer form of thymus gland cancer called thymic carcinoma. Most thymus tumours are in the front of chest but they can also develop in the neck.

# Thymoma

Thymomas are generally slow-growing tumours found most often in people between the ages of 40 and 60. The tumours vary in how they behave. Some grow very slowly and can spread to the lungs or the covering of the lungs (the pleura). It is very unusual for them to spread anywhere else in the body.

Like many other cancers, we do not know exactly what causes thymomas. Some people with thymoma also have an immune system condition (autoimmune disorder). This affects their body's ability to fight infection. The following conditions are linked to thymoma:

- The most common condition linked to thymoma is called myasthenia gravis. The main symptom of this is that the muscles become weak and tired.
- Hypoglobulinaemia is another rare condition linked to thymoma. People with hypoglobulinaemia have very low levels of antibodies in the blood. This leads to an increased risk of infection. Antibodies help the body to neutralise pathogens such as bacteria and viruses.
- Pure red cell aplasia stops the body making enough red blood cells. The red blood cells carry oxygen around the body.

Symptoms of thymoma may include:

- chest pain
- a persistent cough
- becoming breathless or wheezy
- difficulty swallowing
- a hoarse voice.

Sometimes thymoma has no symptoms and is found during tests for something else. Some thymomas can be kept under surveillance with CT scans and chest X rays for years before requiring any treatment.

## Thymic carcinoma

Thymic carcinoma is much rarer than thymoma. It tends to grow and develop more quickly and is more likely to spread to other parts of the body. Thymic carcinoma affects all age groups, but is more common in middle age and in older adults. Most patients have the same symptoms as thymoma. But it is much less common to also have an autoimmune condition such as myasthenia gravis with thymic carcinoma than it is with thymoma.

Most patients will have treatment with surgery and either radiotherapy or chemotherapy, or both. The surgeon will remove as much of the tumour as possible. Then radiotherapy will be used to try to kill off any cancer cells left behind. Unfortunately thymic malignancy is more difficult to cure than thymoma. This is because it often spreads quite early on. The cancer can spread to the lungs and lymph nodes in the chest. In some instances it can also spread to the bones and liver.

## Staging

- **Stage 1** The cancer is inside the thymus gland and has not spread.
- **Stage 2** The cancer has spread through the outer lining of the thymus gland or into the fat around it.
- **Stage 3** The cancer has spread into nearby organs such as the lungs or the lining of the heart (pericardium). It may have also grown into the blood vessels near the heart.
- **Stage 4A** The cancer has spread widely into the lining of the lungs (pleura) and the lining of the heart (pericardium).
- **Stage 4B** The cancer has spread to other distant organs, such as the liver.

Your treatment will depend on the cancer's stage (how far it has spread) and grade (how fast it is growing) as well as your general health.

## Surgery

Surgery is used to remove all of the cancer, or as much as possible. If the cancer has spread outside of the thymus gland the surgeon may also need to remove nearby areas of tissue around the lungs or heart.

Surgery is also used to remove any cancer that has come back in the same area after previous treatment. The way the surgeon removes the cancer will depend on the size and stage of disease. If the cancer has spread outside of the thymus gland, you may require open surgery.

Smaller tumours may be removed using video-assisted thoracic surgery (VATS). During VATS the surgeon makes a small cut at the base of the neck and uses thin, flexible tubes with a camera and surgical instruments on the end to remove the thymus gland.

## **Radiotherapy and chemoradiation**

Radiotherapy uses high energy rays to destroy cancer cells, while doing as little harm as possible to healthy cells. Radiotherapy is given to reduce the risk of the cancer coming back after surgery, or to treat cancer that cannot be removed with surgery.

Chemoradiation (a combination of chemotherapy and radiotherapy), or sometimes radiotherapy alone, is given if you cannot have surgery or if the cancer has spread to other areas of the body. Having chemotherapy and radiotherapy together is more effective than either treatment alone. However the side effects are also usually worse during treatment. It is important that you are well enough to cope with having both treatments together.

You have treatment as a series of short daily sessions (called fractions) over a period of 4-6 weeks from a machine similar to a large x-ray machine. Radiotherapy only treats the area of the body that the rays are aimed at. It does not make you radioactive. Radiotherapy may also be used to control symptoms such as pain if the cancer has spread to other areas of the body, in this case you may only need a few days of treatment.

## **Side effects of radiotherapy**

You may experience side effects during radiotherapy, these usually disappear gradually over a few weeks or months after treatment finishes. Your radiotherapy team will let you know what to expect. You must tell the team about any side effects you experience. There are often things that can be done (for example, medication) to help relieve side effects.

Radiotherapy can cause difficulty in swallowing and make your throat sore and dry. You may also experience heartburn. You may be referred to a dietitian for further advice. You may require dietary supplements to add extra energy and/or protein to your diet.

The treatment area may include parts of the lungs or heart near the thymus gland, causing swelling and soreness. This may make you feel more breathless, give you a dry cough or chest pain. This can start during treatment or in the weeks afterwards. It usually improves with time. It can be common to have a skin reaction in the area of the chest wall being treated. The radiotherapy team will give advice about skin care during treatment. The skin may become sore and red; this usually starts 2-3 weeks after treatment starts and may last for 3-4 weeks after treatment ends.

Most of these side effects get better when treatment ends. However, radiotherapy can cause other long-term effects to the heart or lungs. Long-term effects are not common, but they can happen months or even years after your treatment. For more information about this, please speak to your doctor or nurse.



# Chemotherapy

Chemotherapy uses anti-cancer (cytotoxic) drugs to destroy cancer cells throughout the body. You may have this treatment to shrink the tumour before having surgery.

Alternatively, chemotherapy can be given after surgery to reduce the risk of the cancer coming back. It can also be the main treatment alone or with radiotherapy (chemoradiation) if you cannot have surgery.

The most common chemotherapy drug used is called cisplatin. This drug is administered into the vein (intravenously).

## Side effects of chemotherapy

Chemotherapy side effects depend on the drug or combination of drugs given. Your doctor and nurse will explain any treatment you are offered and what to expect.

Chemotherapy can reduce the number of white blood cells in your blood during treatment. This will make you more prone to infection. Your doctor or nurse will give you advice about what to do if this happens.

Chemotherapy can cause other side effects and these will be discussed with your doctor or nurse.

## Anti-hormonal treatments

Anti-hormonal treatment such as octreotide or dotatate may be offered. Some tumours can be controlled by this following a specialised positron emission tomography (PET) scan. PET scans create three dimensional images of the inside of the body.

## Trials

You may be able to take part in a clinical trial. There is ongoing research into treatments for thymoma and thymic carcinoma.

However, this type of cancer is rare and there may not be a suitable trial for you to join. If there is a suitable trial, your doctor or nurse will be able to discuss treatment so that you have a full understanding of the trial and what to expect. You may decide to withdraw from the trial at any time but you will still receive the best treatment.

## After treatment

Once your treatment has finished, you will have regular check-up appointments at the hospital and possibly further tests for several years. If you do have any problems or notice any new symptoms between your appointments, please let your doctor or nurse know as soon as possible.

You may experience a range of different emotions including anger, resentment, guilt, anxiety and fear. These are all normal reactions and are part of the process many people go through trying to come to terms with their condition.

Everyone copes with difficult situations differently. Some find it helpful to talk to family or friends, while others prefer to seek help from people outside of the situation. Some prefer to keep their feelings to themselves. There is no right or wrong way to cope, but help is available should you need it.

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Further information

### **Macmillan Cancer Support Helpline**

A free helpline for people affected by cancer who have questions about cancer, need support or just someone to talk to.

**t:** 0808 808 0000    **w:** [www.macmillan.org.uk](http://www.macmillan.org.uk)

### **Trekstock Young Adult Cancer Support**

For young adults affected by cancer and looking for support

**t:** 020 7439 8607    **w:** [www.trekstock.com](http://www.trekstock.com)

### **Shine Cancer Support**

For adults in their 20s, 30s, or 40s diagnosed with cancer

**w:** [www.shinecancersupport.co.uk](http://www.shinecancersupport.co.uk)

### **Thymoma Cancer Research**

Facebook group for people affected by thymoma

**w:** [www.facebook.com/groups/34127563256/?fref=ts](https://www.facebook.com/groups/34127563256/?fref=ts)

### **International Rare Cancers Initiative (IRCI)**

**w:** [www.irci.info](http://www.irci.info)

## Contact us

If you have any questions or concerns, please contact your clinical nurse specialist. They will act as your key worker, providing support, information and advice to you and your family. It is their role to coordinate your care and be a familiar face at the hospital that you can call on when needed. To speak to them, call **020 7188 4758** (Monday to Thursday 9am to 5pm, Friday 8am to 4pm).

If you have an urgent enquiry outside of our working hours, please contact the main hospital switchboard on **020 7188 7188** and ask for the oncology registrar on call.

Alternatively, you can email us:  
[LungCancerCNS@gstt.nhs.uk](mailto:LungCancerCNS@gstt.nhs.uk)

Guy's and St Thomas' hospitals offer a range of cancer-related information leaflets for patients and carers, available at [www.guysandstthomas.nhs.uk/cancer-leaflets](http://www.guysandstthomas.nhs.uk/cancer-leaflets). For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit [www.guysandstthomas.nhs.uk/leaflets](http://www.guysandstthomas.nhs.uk/leaflets)

**Dimbleby Cancer Care** provides cancer support services for Guy's and St Thomas'. We have a drop-in information area staffed by specialist nurses and offer complementary therapies, psychological support and benefits advice for patients and carers.

Dimbleby Cancer Care is located in the Welcome Village of the Cancer Centre at Guy's. **t:** 020 7188 5918  
**e:** [DimblebyCancerCare@gstt.nhs.uk](mailto:DimblebyCancerCare@gstt.nhs.uk)

The logo for Dimbleby Cancer Care, featuring the text "Dimbleby Cancer Care" in white on a blue background.

Dimbleby  
Cancer  
Care

[www.dimblebycancercare.org](http://www.dimblebycancercare.org)

## Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

**t:** 020 7188 8748 9am to 5pm, Monday to Friday

## Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

**t:** 020 7188 8801 (PALS)      **e:** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk)

**t:** 020 7188 3514 (complaints)      **e:** [complaints2@gstt.nhs.uk](mailto:complaints2@gstt.nhs.uk)

## Language and Accessible Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

**t:** 020 7188 8815      **e:** [languagesupport@gstt.nhs.uk](mailto:languagesupport@gstt.nhs.uk)

## NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

**w:** [www.nhs.uk](http://www.nhs.uk)

## Get involved: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved.

**t:** 0800 731 0319      **e:** [members@gstt.nhs.uk](mailto:members@gstt.nhs.uk)

**w:** [www.guysandstthomas.nhs.uk/membership](http://www.guysandstthomas.nhs.uk/membership)

**Leaflet number: 4348/VER1**

Date published: February 2017

Review date: February 2020

© 2017 Guy's and St Thomas' NHS Foundation Trust

