

# Anti-thyroid drugs

Information and advice for patients

## Endocrinology

### What are anti-thyroid drugs?

Anti-thyroid drugs, such as carbimazole and propylthiouracil, are medicines used to treat hyperthyroidism.

Hyperthyroidism, also called an overactive thyroid, is a condition where the thyroid gland releases too many hormones. The thyroid gland is in the neck and releases hormones which help control growth and the way your body uses energy. When the thyroid gland releases too many hormones it can cause some of the body's functions to speed up, causing symptoms such as feeling very nervous or anxious, being hyperactive, weight loss and a lump in your neck.

### What is the benefit of taking anti-thyroid drugs?

The benefit of taking anti-thyroid drugs is that they reduce the amount of hormones your thyroid gland releases, which can improve the symptoms of hyperthyroidism.

### What are the risks of taking anti-thyroid drugs?

A risk of taking carbimazole is that it can lower the number of white blood cells in your body. These are the cells that fight infection. If you develop any of the following symptoms while taking carbimazole, stop taking it, see a doctor immediately and ask them to do a blood test to check your white cell count:

- Sore throat
- Temperature of 37.5°C or above
- Unexplained bruising
- Feeling more tired than usual
- Mouth ulcers
- Feeling unwell

Other possible side effects of carbimazole include stomach irritation and rash. A full list of side effects can be found in the manufacturer's leaflet that comes with the medicine.

A risk of taking propylthiouracil is that it can cause liver problems, although this is rare. If you develop any of the following symptoms while taking propylthiouracil, stop taking it and see a doctor immediately:

- Weight loss
- Poor appetite
- Feeling or being sick
- Feeling more tired than usual

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- Abdominal (tummy) pain
- Dark-coloured urine
- Itching
- A yellow colour to your skin or eyes

A full list of possible side effects can be found in the manufacturer's leaflet that comes with the medicine.

### **What are the risks of not taking anti-thyroid drugs?**

If you choose not to take anti-thyroid drugs for your hyperthyroidism then it will become worse and your symptoms will become more severe. You could then experience complications such as an irregular heart rate, heart failure and eventually you could go into a coma which can be life-threatening.

### **Are there any alternatives to anti-thyroid drugs?**

Another treatment for hyperthyroidism which may be appropriate for some people is with radioactive iodine which is taken once or twice only, as a tablet or drink.

Another treatment for hyperthyroidism is 'block and replace therapy'. This involves taking a high dose of the anti-thyroid drug carbimazole and the medication thyroxine which is a thyroid hormone. The high dose of carbimazole blocks your thyroid gland from releasing any hormones, and thyroxine then replaces the thyroid hormone that your thyroid gland should be releasing.

Surgery to remove part of the thyroid gland is another treatment for hyperthyroidism which may be suitable for some people.

Your doctor will discuss these treatments with you if they are suitable for you.

### **Before taking anti-thyroid drugs**

Before taking carbimazole or propylthiouracil, please let your doctor know if you have any medical conditions or if you are pregnant or breastfeeding. You should also inform them of any other medications you are taking.

Please make sure you read the manufacturer's information leaflet that comes with your medication before taking it.

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### How to take the medication

Your doctor will tell you which anti-thyroid drug you have been prescribed, how much you need to take of it and how often you need to take it. Anti-thyroid drugs come as a tablet.

If you forget to take a dose of your medication, miss out the forgotten dose and then continue taking it as normal when your next dose is due. If you take too much of your medication contact your GP or NHS Direct on 0845 46 47 for advice.

When you first start taking anti-thyroid drugs you will be prescribed a high dose. You will then be given an appointment to see the doctor in 6 – 8 weeks after starting it. At the appointment your doctor will ask you about your symptoms and do a blood test to check your thyroid function (how well your thyroid gland is working). If your symptoms and thyroid function are improving then the dose may be reduced, so that you are taking the lowest dose necessary to keep your thyroid function normal.

You may need to take anti-thyroid drugs for 6 – 24 months to reduce your chance of having hyperthyroidism in the future, and will have regular blood tests and check-ups during this time. After this time, if you do not develop any further symptoms and your blood tests remain normal your hospital doctor will discharge you. If you experience any of the symptoms of hyperthyroidism in the future, please see your GP.

### Precautions

Please tell any doctors or nurses treating you that you are taking anti-thyroid drugs.

### Storing your medication

Store your medication:

- in the original packaging
- in a dry place, at room temperature
- out of the sight and reach of children.

### Further information

If you have any questions or concerns about your hyperthyroidism or the treatment please speak to your GP, consultant or specialist nurse.

You can contact your consultant or specialist nurse by calling the hospital switchboard on 0121 554 3801, holding to speak to an advisor, and asking for them.

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For more information about hyperthyroidism:

### NHS Choices

[www.nhs.uk/conditions/Thyroid-over-active](http://www.nhs.uk/conditions/Thyroid-over-active)

### Patient UK

[www.patient.co.uk/health/hyperthyroidism-overactive-thyroid](http://www.patient.co.uk/health/hyperthyroidism-overactive-thyroid)

For more information about our hospitals and services please see our website

[www.swbh.nhs.uk](http://www.swbh.nhs.uk), follow us on Twitter @SWBHnhs and like us on Facebook

[www.facebook.com/SWBHnhs](http://www.facebook.com/SWBHnhs).

## Sources used for the information in this leaflet

- British National Formulary, section 6.2.2 'Anti-thyroid drugs', accessed online May 2013
- Patient UK Professional Reference, 'Hyperthyroidism', December 2012
- Ballinger, 'Essentials of Kumar and Clark's Clinical Medicine', chapter 14, 5th edition, 2012
- Oxford University Press, 'Oxford handbook of clinical medicine', chapter 5, 8th edition, 2010
- British Thyroid Association, 'Hyperthyroidism – clinical features and treatment', 2007
- Ward and Linden, 'Physiology at a glance', chapter 6, 2nd edition, 2005

If you would like to suggest any amendments or improvements to this leaflet please contact the communications department on 0121 507 5303 or email: [swb-tr.swbh-gm-patient-information@nhs.net](mailto:swb-tr.swbh-gm-patient-information@nhs.net)



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