Package leaflet: Information for the patient

Oroxine 25 microgram tablets
Oroxine 50 microgram tablets
Oroxine 75 microgram tablets
Oroxine 100 microgram tablets
Oroxine 125 microgram tablets
Oroxine 150 microgram tablets
Oroxine 175 microgram tablets
Oroxine 200 microgram tablets

levothyroxine sodium

Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet?

This leaflet answers some common questions about Oroxine tablets. It does not contain all of the available information. It does not take the place of talking to your doctor or pharmacist. All medicines have risks and benefits. Your doctor has weighed the expected benefits of you taking Oroxine against the risks this medicine could have for you.

1. What Oroxine is and what it is used for
2. What you need to know before you take Oroxine
3. How to take Oroxine
4. Possible side effects
5. How to store Oroxine
6. Contents of the pack and other information

1. What Oroxine is and what it is used for

Oroxine contains thyroid hormone as its active substance.

The aim of treatment with Oroxine is to replace missing thyroid hormone and/or to relieve stress on the thyroid gland.

Oroxine is used:
- to replace the missing hormone in all forms of underactive thyroid function,
- to prevent the return of new goitres after goitre surgery in patients with normal thyroid function,
- to treat non malignant goitre (benign struma) in patients with normal thyroid function,

Oroxine 25 micrograms
- as add on therapy in the antithyroid treatment of an overactive thyroid, after normal metabolic status has been reached.
• for malignant thyroid tumours, particularly after surgery to suppress new tumour growth and as a supplement for missing thyroid hormone.

Oroxine 50 micrograms
• as add on therapy in the antithyroid treatment of an overactive thyroid, after normal metabolic status has been reached,
• for malignant thyroid tumours, particularly after surgery to suppress new tumour growth and as a supplement for missing thyroid hormone.

Oroxine 75 micrograms
• as add on therapy in the antithyroid treatment of an overactive thyroid, after normal metabolic status has been reached,
• for malignant thyroid tumours, particularly after surgery to suppress new tumour growth and as a supplement for missing thyroid hormone.

Oroxine 100 micrograms
• as add on therapy in the antithyroid treatment of an overactive thyroid, after normal metabolic status has been reached,
• for malignant thyroid tumours, particularly after surgery to suppress new tumour growth and as a supplement for missing thyroid hormone,
• in the thyroid suppression test.

Oroxine 125 micrograms
• for malignant thyroid tumours, particularly after surgery to suppress new tumour growth and as a supplement for missing thyroid hormone,

Oroxine 150 micrograms
• for malignant thyroid tumours, particularly after surgery to suppress new tumour growth and as a supplement for missing thyroid hormone,
• in the thyroid suppression test.

Oroxine 175 micrograms
• for malignant thyroid tumours, particularly after surgery to suppress new tumour growth and as a supplement for missing thyroid hormone,

Oroxine 200 micrograms
• for malignant thyroid tumours, particularly after surgery to suppress new tumour growth and as a supplement for missing thyroid hormone,
• in the thyroid suppression test.

2. What you need to know before you take Oroxine

Tell your doctor if you are allergic to any foods or medicines.

Do not take Oroxine:
• if you are allergic to levothyroxine sodium or any of the other ingredients (listed in section 6),
• if you have any of the following disorders or conditions:
  o an untreated overactive thyroid,
  o If you have untreated subclinical (suppressed serum TSH level with normal T₃ and T₄ levels) or overt thyrotoxicosis
o untreated adrenal cortex deficiency,
o untreated pituitary deficiency (hypopituitarism),
o recent heart attack,
o acute inflammation of the heart muscle (myocarditis),
o acute inflammation of all layers of the heart wall (pancarditis).

Before the start of treatment with Oroxine, the following disorders or conditions must be ruled out or treated:

- coronary heart disease,
- chest pain with tight chestedness (angina pectoris),
- high blood pressure (hypertension),
- pituitary and/or adrenal cortex deficiency,
- areas in the thyroid that produce uncontrolled amounts of thyroid hormone (thyroid autonomy).

**Warnings and precautions**

**You must not take Oroxine to achieve weight loss. If your thyroid hormone blood levels are within the normal range, additional intake of thyroid hormones will not cause weight loss. Such additional intake may cause serious or even life threatening side effects, particularly in combination with certain weight loss products.**

Your doctor should measure the values of TSH and T4 four to six weeks after switching over from another levothyroxine product to this product. Special care should be taken to maintain thyroid balance if you:
- are pregnant or are planning to become pregnant;
- If you have, an underactive thyroid since birth or acquired during childhood;
- If you are undergoing suppressive therapy with previous thyroid cancer, especially if you are frail or elderly;
- If you have central underactive thyroid

Talk to your doctor or pharmacist before taking Oroxine:

- if you have coronary heart disease, weak heart muscle, heart rhythm disorders with a rapid heartbeat, chronic underactive thyroid function, or in patients who have already suffered a heart attack. Particular vigilance is required for milder signs of overactive thyroid function caused by the administration of Oroxine, so as to avoid excessively high hormone levels in the blood. In these cases, more frequent checks on thyroid levels should be made (see “How to take Oroxine”).

- if you have underactive thyroid function caused by a disease of the pituitary gland. Checks must be made to find out whether the patient also has adrenal cortex deficiency. This condition must be treated (hydrocortisone) before introducing thyroid hormone therapy.
• when suspected of having areas in the thyroid causing uncontrolled production of the thyroid hormone, further tests are recommended before the start of treatment to check the thyroid regulation system.

• when treating women after the menopause, who are at increased risk of brittle bones (osteoporosis). Thyroid function should be checked more frequently to avoid increased blood levels of levothyroxine.

• if you have diabetes, as the dosage of your diabetic treatment may need to be altered

• if you have epilepsy (fits). Fits have been rarely reported when starting the treatment with levothyroxine

• if your child is receiving a thyroid replacement therapy, partial loss of hair may occur during the first few months of taking this medicine, but this is usually transient and hair regrowth usually occurs.

If you are being treated with certain anti-blood clotting agents, (see “Other medicines and Oroxine ”).

In the elderly, the dose should be carefully and individually tailored, e.g. for those with heart problems, and they should be monitored by their doctor.

Other medicines and Oroxine

Tell your doctor or pharmacist if you are taking, have recently taken, or might take any other medicines. If you are about to have a test with iodinated contrast media you should tell your doctor that you are taking Oroxine.

The following medicinal products may alter the way Oroxine works:

• medicines to treat diabetes (e.g. insulin, metformin)
• anticoagulants such as warfarin, dicoumarol (used to thin the blood)
• amiodarone (used to treat some heart conditions)
• aspirin (used to reduce inflammation)
• medicines containing oestrogen (e.g. HRT, oral contraceptives)
• sertraline (antidepressant)
• chloroquine and proguanil (medicines used in malaria and rheumatic diseases)
• tricyclic antidepressants (e.g. amitriptyline, imipramine)
• imatinib (used for the treatment of cancer)
• medicines to control your heart rate such as digoxin
• medicines that stimulate the sympathetic nervous system such as adrenaline
• barbiturates (medicines used for sleeping)
• carbamazepine or phenytoin (medicines to treat epilepsy or seizures)
• furosemide (used to treat high blood pressure or oedema)
• rifampicin (used to treat serious infections)
• lopinavir/ritonavir (medicines used to treat HIV)
• propylthiouracil (used to treat hyperthyroidism)
• medicines used for treating abnormal heart rhythms (beta receptor blockers)
• glucocorticoids (such as cortisone, hydrocortisone, prednisone, and dexamethasone)

Oroxine should be taken at least 4-5 hours before taking the following medicines.
• cholestyramine, cholestipol or clofibrate (used to reduce cholesterol levels in the blood)
• sodium polystyrene sulphonic acid (used to treat kidney disease)

Oroxine should be taken at least 2 hours before taking the following medicines:
• medicines containing calcium carbonate
• iron tablets (containing ferrous sulphate)
• aluminium hydroxide (used to treat heartburn)
• medicines to treat stomach ulcers such as sucralfate, antacids

**Oroxine with food or drink:**

Soya containing products may affect the absorption of Oroxine thereby necessitating adjustments in dosing.

**Pregnancy, breast-feeding and fertility**

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or pharmacist for advice before taking this medicine.

Consistent treatment with thyroid hormones is particularly important during pregnancy and breast-feeding and must therefore be continued under the supervision of the treating doctor.

The need for levothyroxine may increase during pregnancy due to increased blood levels of oestrogen (female sex hormone). Thyroid function should therefore be monitored both during and after pregnancy and the thyroid hormone dose adjusted as appropriate.

Even during high dose levothyroxine therapy, the amount of thyroid hormone passing into breast milk during lactation is very low and therefore harmless.

**Oroxine 100/150/200 micrograms**

Suppression tests must not be performed during pregnancy and breast-feeding.

**Driving and using machines**

Oroxine should not interfere with your ability to drive or use machinery.

### 3. How to take Oroxine

Always take this medicine exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure.

The individual daily dose should be determined by your doctor by means of laboratory diagnostic tests and clinical examinations.

If any residual thyroid function remains, a lower dose of thyroid hormone may be sufficient.

In elderly patients, patients with coronary heart disease and patients with severe or chronic underactive thyroid function, particular caution is required when starting treatment with thyroid hormones. This means that a lower starting dose must be selected, which is then increased slowly and
at longer intervals, with frequent thyroid hormone monitoring. Experience has shown that a lower dose is also sufficient in patients with a low body weight and in patients with large goitres.

**Dosage**

For individual treatment, tablets are available with graduated levels ranging from 25-200 micrograms of Oroxine, which means that only one tablet daily needs to be taken in most cases.

For the treatment of underactive thyroid function, adults initially take 25-50 micrograms of Oroxine daily. If instructed by the doctor, this dose can be increased by 25-50 micrograms of Oroxine at two to four week intervals, up to a daily dose of 100-200 micrograms of Oroxine.

To prevent the formation of new goitres after goitre removal and for the treatment of benign goitres, 75-200 micrograms of Oroxine are taken daily (up to 2 Oroxine 100 microgram tablets).

**Oroxine 25 micrograms**

As add on therapy in the antithyroid treatment of an overactive thyroid, 50-100 micrograms of Oroxine are taken daily.

After thyroid surgery due to a malignant thyroid tumour, the daily dose is 150-300 micrograms of Oroxine.

**Oroxine 50 micrograms**

As add on therapy in the antithyroid treatment of an overactive thyroid, 50-100 micrograms of Oroxine are taken daily.

After thyroid surgery due to a malignant thyroid tumour, the daily dose is 150-300 micrograms of Oroxine.

**Oroxine 75 micrograms**

As add on therapy in the antithyroid treatment of an overactive thyroid, 50-100 micrograms of Oroxine are taken daily.

After thyroid surgery due to a malignant thyroid tumour, the daily dose is 150-300 micrograms of Oroxine.

**Oroxine 100 micrograms**

As add on therapy in the antithyroid treatment of an overactive thyroid, 50-100 micrograms of Oroxine are taken daily.

After thyroid surgery due to a malignant thyroid tumour, the daily dose is 150-300 micrograms of Oroxine.

For a thyroid suppression test, 200 micrograms of Oroxine (2 tablets) are taken daily for 14 days until scanning of administered radio nuclides in the body is performed.

**Oroxine 125 micrograms**

After thyroid surgery due to a malignant thyroid tumour, the daily dose is 150-300 micrograms of Oroxine.

**Oroxine 150 micrograms**

After thyroid surgery due to a malignant thyroid tumour, the daily dose is 150-300 micrograms of Oroxine.

For a thyroid suppression test, 150 micrograms of Oroxine (1 tablet) are taken daily for 14 days until scanning of administered radio nuclides in the body is performed.

**Oroxine 175 micrograms**

After thyroid surgery due to a malignant thyroid tumour, the daily dose is 150-300 micrograms of Oroxine.
**Oroxine 200 micrograms**

After thyroid surgery due to a malignant thyroid tumour, the daily dose is 150-300 micrograms of Oroxine.

For a thyroid suppression test, 200 micrograms of Oroxine (1 tablet) are taken daily for 14 days until scanning of administered radio nuclides in the body is performed.

If appropriate, the use of a medicinal product with a lower active substance content is recommended for starting treatment and increasing the dose in adults and for the treatment of children.

For newborns and infants with inborn thyroid hormone deficiency, where it is particularly important to start treatment as soon as possible, in order to achieve normal mental and physical development, the initial recommended dosage is 10 to 15 micrograms per kg BW per day for the first 3 months. Thereafter, the dose would be adjusted individually according to the clinical findings and thyroid hormone and TSH values measured in blood.

Children with acquired hypothyroidism start on 12.5-50 micrograms of Oroxine daily. The dose should be increased gradually every 2 to 4 weeks according to the clinical findings and thyroid hormone and TSH values measured in blood until the full replacement dose is reached. As well as other values, the dosage in long term treatment will depend on the age and body weight of the individual child.

During the first 6 months of life, measurement of the levothyroxine blood level is more reliable as a control than measurement of TSH blood levels (thyroid stimulating hormone). In individual cases, it may take up to two years for the TSH level to normalise, despite adequate administration of levothyroxine.

**Method of administration**

The total daily dose is taken in the morning on an empty stomach, at least half an hour before breakfast, as the active substance is better absorbed on an empty stomach than before or after a meal. The tablets are swallowed whole without chewing, with plenty of liquid (e.g. a glass of water). Infants are given the total daily dose at least half an hour before their first meal of the day. For this, the tablet is allowed to dissolve in some water (10-15 ml) and the resulting fine dispersion (note: to be freshly prepared for each dose) is administered with some more liquid (5-10 ml).

**Duration of administration**

You should take this medicine for as long as your doctor tells you.

- If you have an underactive thyroid gland or have had thyroid surgery for a malignant tumour of the thyroid, you will usually take Oroxine for life.
- For benign goitre and for prevention of recurrent goitre growth, you must take Oroxine for anything between several months or years to the rest of your life.
- In supportive therapy for the treatment of an overactive thyroid, you must take Oroxine as long as you take a thyreostatic medicine.
- For the treatment of benign goitre with normal thyroid function, a treatment period of 6 months to 2 years is necessary. If the treatment with Oroxine has not produced the desired result within this period, other treatment options should be considered.

Do not remove the canister (oxygen absorber) from the bottle during the in-use period. After opening the container the tablets should be used within 2 months.

**If you take more Oroxine than you should**
In the event of an overdose, consult your doctor or pharmacist immediately. If neither is available, seek immediate help at the nearest hospital or poison control centre. If you are an epileptic, seizures may occur if the dose of levothyroxine is increased rapidly. Symptoms of an overactive thyroid may occur in the event of an overdose (see “Possible side effects”).

If you forget to take Oroxine

If you miss a dose, just resume the usual schedule when your next dose is due. Do not take a double dose to make up for forgotten individual doses. If you are unsure, please seek advice from your doctor or pharmacist.

If you stop taking Oroxine

For your treatment to be successful, you must take Oroxine regularly at the dosage prescribed by your doctor. On no account should you change, suspend or stop the prescribed treatment without talking to your doctor. Symptoms of disease may return if you suspend or stop treatment before you should. The nature of these symptoms depends on the underlying disease.

If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

4. Possible Side Effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

All medicines can cause allergic reactions although serious allergic reactions are rare. Any sudden wheeziness, difficulty in breathing, swelling of the eyelids, face or lips, rash or itching (especially affecting your whole body) should be reported to a doctor immediately.

If the dosage strength is not tolerated in individual cases or in the case of an overdose, symptoms typical of an overactive thyroid may occur, particularly if the dose is increased too rapidly at the start of treatment (frequency not known – cannot be estimated from the available data):

- Headache, flushing, excessive sweating,
- Loss of weight,
- Tremor (shaking), restlessness, excitability, nervousness
- Difficulty sleeping,
- Rapid heartbeat (tachycardia) or angina (chest pain with tightchestedness),
- Irregular heartbeats, palpitations (thumping heart beats)
- High blood pressure (hypertension), heart failure, heart attack
- Shortness of breath (dyspnoea)
- Increased appetite, feeling sick (nausea), being sick (vomiting), loose stools (diarrhoea), abdominal cramps
- Muscle weakness and muscle cramps
- Fever
- Intolerance to heat
- Mild hair-loss is seen in children.
- In women – changes in your menstrual cycle (period),
You should check with your doctor if any of the above effects occur. The effects usually go away when the dose has been changed. Increased brain pressure (especially in children) may also be observed (rare: may affect up to 1 in 1,000 people) as atypical symptoms.

In children, overdosing with levothyroxine may cause too early fusion of skull bones and premature stopping of the growth.

In the case of hypersensitivity to levothyroxine sodium or any of the other ingredients of Oroxine, allergic reactions of the skin and respiratory tract region may occur.

**Measures to treat an overdose**

Tell your doctor if side effects occur. He/she will decide whether the daily dose should be reduced or whether you should stop taking your tablets for a few days. As soon as the side effect has disappeared, treatment can be started again at a cautious dosage.

**Reporting of side effects**

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via HPRA Pharmacovigilance, Earlsfort Terrace, IRL -Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie; E-mail: medsafety@hpra.ie. By reporting side effects you can help provide more information on the safety of this medicine.

5. **How to store Oroxine**

**KEEP THIS MEDICINE OUT OF THE SIGHT AND REACH OF CHILDREN.**

Do not use this medicine after the expiry date which is stated on the box and bottle. The expiry date refers to the last day of that month.

After opening of the HDPE container the tablets should be used within 2 months.

*For Oroxine 25 and 125 micrograms tablets:* Store below 25°C

*For Oroxine 50 and 100 micrograms tablets:* Store below 30°C

*For Oroxine 75 and 150-200 micrograms tablets:* This medicinal product does not require any special storage conditions.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

6. **Contents of the pack and other information**

**What Oroxine contains**

The active substance is levothyroxine sodium.

Each tablet of Oroxine 25 microgram contains 27.8 microgram of levothyroxine sodium pentahydrate equivalent to 25 microgram of levothyroxine sodium.

Each tablet of Oroxine 50 microgram contains 55.6 microgram of levothyroxine sodium pentahydrate equivalent to 50 microgram of levothyroxine sodium.
Each tablet of Oroxine 75 microgram contains 83.4 microgram of levothyroxine sodium pentahydrate equivalent to 75 microgram of levothyroxine sodium.

Each tablet of Oroxine 100 microgram contains 111.3 microgram of levothyroxine sodium pentahydrate equivalent to 100 microgram of levothyroxine sodium.

Each tablet of Oroxine 125 microgram contains 139.1 microgram of levothyroxine sodium pentahydrate equivalent to 125 microgram of levothyroxine sodium.

Each tablet of Oroxine 150 microgram contains 166.9 microgram of levothyroxine sodium pentahydrate equivalent to 150 microgram of levothyroxine sodium.

Each tablet of Oroxine 175 microgram contains 194.7 microgram of levothyroxine sodium pentahydrate equivalent to 175 microgram of levothyroxine sodium.

Each tablet of Oroxine 200 microgram contains 222.5 microgram of levothyroxine sodium pentahydrate equivalent to 200 microgram of levothyroxine sodium.

The other ingredients are:
Microcrystalline cellulose PH101 (E460)
Pregelatinised maize starch
Talc (E553b)
Colloidal anhydrous silica (E551)
Magnesium stearate (E470b)

**What Oroxine looks like and contents of the pack**

Oroxine tablets are packed in high density polyethylene (HDPE) bottles, closed with white polypropylene (PP) screw caps with foil heat induction seals, and with a 1.0 g white polypropylene canister containing oxygen absorber in packs of 28, 50, 60, 84, 90, 100, 112. Not all pack sizes may be marketed.

Oroxine  25 microgram tablets are round, 6.5mm in diameter , white coloured, flat, bevelled tablets debossed with ‘25’ on the one side and a breakline on the other side. The tablet can be divided into equal doses.

Oroxine  50 microgram tablets are round, 6.5mm in diameter , white coloured, flat, bevelled tablets debossed with ‘50’ on the one side and ‘L01’ on the other side.

Oroxine  75 microgram tablets are round, 6.5mm in diameter , white coloured, flat, bevelled tablets debossed with ‘75’ on the one side and ‘L02’ on the other side.

Oroxine  100 microgram tablets are round, 6.5mm in diameter , white coloured, flat, bevelled tablets debossed with ‘100’ on the one side and ‘L10’ on the other side.

Oroxine  125 microgram tablets are round, 6.5mm in diameter , white coloured, flat, bevelled tablets debossed with ‘125’ on the one side and ‘L12’ on the other side.
Oroxine 150 microgram tablets are round, 6.5mm in diameter, white coloured, flat, bevelled tablets debossed with ‘150’ on the one side and ‘L17’ on the other side.

Oroxine 175 microgram tablets are round, 6.5mm in diameter, white coloured, flat, bevelled tablets debossed with ‘175’ on the one side and ‘L20’ on the other side.

Oroxine 200 microgram tablets are round, 6.5mm in diameter, white coloured, flat, bevelled tablets debossed with ‘200’ on the one side and ‘L21’ on the other side.

Marketing Authorisation Holder
Aspen Pharma Trading Limited
3016 Lake Drive,
Citywest Business Campus,
Dublin 24,
Ireland

Manufacturer
Aspen Bad Oldesloe GmbH
Industriestraße 32-36
D-23843 Bad Oldesloe
Germany

This medicinal product is authorised in the Member States of the EEA under the following names:

Austria  Eltroxin 25/50/75/88/100/112/125/137/150/175/200 mikrogramm tabletten
Belgium   Thevier 25/50/75/88/100/112/125/137/150/175/200 mcg tabletten
Czech Republic Oroxine 100 mikrogramů
Denmark   Oroxine
Finland   Eltroxin
France    Levothyroxine Aspen
Germany   L-Thyroxin Aspen
Ireland   Oroxine
Italy     Thyrax 25/50/75/88/100/112/125/137/150/175/200 µg compresse
Luxembourg Levotrox
Norway    Oroxine
Poland    Oroxine
Portugal  Eltroxin
Slovenia  Levotrox 25/50/100/150/200 mikrogramov tablete
Spain     Eltroxin 25/50/75/100/125/150/175/200 microgramos comprimidos
Sweden  Eltroxin

The Netherlands  Levotrox 25/50/75/88/100/112/125/137/150/175/200 microgram tabletten

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