PATIENT & CAREGIVER EDUCATION

Levothyroxine

This information from UpToDate® Lexidrug™ explains what you need to know about this medication, including what it's used for, how to take it, its side effects, and when to call your healthcare provider.

Brand Names: US

Ermeza [DSC]; Euthyrox [DSC]; Levoxyl; Synthroid; Thyquidity; Tirosint; Tirosint-SOL; Unithroid

Brand Names: Canada

APO-Levothyroxine; Eltroxin; Synthroid; Thyconvi

Warning

- Do not use this drug for weight loss. Severe and sometimes deadly side effects may happen with this drug if it is taken in large doses or with other drugs for weight loss. If you have questions, talk with the doctor.

What is this drug used for?

- It is used to add thyroid hormone to the body.
- It is used to manage thyroid cancer.
- It may be given to your child for other reasons. Talk with the doctor.

What do I need to tell the doctor BEFORE my child takes this drug?

All products:

- If your child is allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell the doctor about the allergy and what signs your child had.
- If your child has any of these health problems: Overactive thyroid gland or weak adrenal gland.

Tablets and capsules:

- If your child has trouble swallowing.

This is not a list of all drugs or health problems that interact with this drug.

Tell the doctor and pharmacist about all of your child's drugs (prescription or OTC, natural products, vitamins) and health problems. You must check to make sure that it is safe to give this drug with all of your child's other drugs and health problems. Do not start, stop, or change the dose of any drug your child takes without checking with the doctor.

What are some things I need to know or do while my child takes this drug?

- Tell all of your child's health care providers that your child is taking this drug. This includes your child's doctors, nurses, pharmacists, and dentists.
- Do not run out of this drug.
- It may take several weeks to see the full effects.
- If your child has high blood sugar (diabetes), talk with the doctor. This drug may sometimes affect blood sugar control. Drugs used to control high blood sugar may need to be changed.
- Check your child's blood sugar as you have been told by the doctor.
- Have blood work checked as you have been told by the doctor. Talk with the

doctor.

- If your child takes biotin or a product with biotin in it, have your child stop taking biotin at least 2 days before your child's thyroid level is checked.
- This drug may cause weak bones (osteoporosis) with doses that are too high. Talk with your child's doctor to see if your child has a higher risk of weak bones or if you have any questions.
- If giving this drug to your child and your child's weight changes, talk with the doctor. The dose of this drug may need to be changed.
- Do not give your child more of this drug than what the doctor told you to give. Giving more of this drug than you are told may raise the chance of severe side effects.
- This drug may affect growth in children and teens in some cases. They may need regular growth checks. Talk with the doctor.
- This drug may affect fertility. Fertility problems may lead to not being able to get pregnant or father a child. If your child plans to get pregnant or father a child, talk with the doctor before your child takes this drug.

If your child is pregnant or breast-feeding a baby:

- Talk with the doctor if your child is pregnant, becomes pregnant, or is breast-feeding a baby. You will need to talk about the benefits and risks to your child and the baby.

What are some side effects that I need to call my child's doctor about right away?

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your child's doctor or get medical help right away if your child has any of the following signs or symptoms that may be related to a very bad side effect:

- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.

- Signs of high blood pressure like very bad headache or dizziness, passing out, or change in eyesight.
- Chest pain or pressure, a fast heartbeat, or an abnormal heartbeat.
- Shortness of breath, a big weight gain, or swelling in the arms or legs.
- Headache.
- Feeling tired or weak.
- Appetite changes.
- A change in weight without trying.
- Diarrhea, stomach cramps, or throwing up.
- Feeling irritable, nervous, excitable, anxious, or other mood changes.
- Shakiness.
- Trouble sleeping.
- Bothered by heat.
- Sweating a lot.
- Fever.
- Muscle cramps.
- Muscle weakness.
- Flushing.
- Bone pain.
- Hip or knee pain, or a limp.

If your child has menstrual periods:

- Period (menstrual) changes.

Infants:

- Change in the shape of the head and face.

What are some other side effects of this drug?

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your child's doctor or get medical help if any of these side effects or any other side effects bother your child or do not go away:

- Hair loss may happen in some people in the first few months of using this drug. This most often goes back to normal.

These are not all of the side effects that may occur. If you have questions about side effects, call your child's doctor. Call your child's doctor for medical advice about side effects.

You may report side effects to your national health agency.

How is this drug best given?

Give this drug as ordered by your child's doctor. Read all information given to you. Follow all instructions closely.

All oral products:

- Do not give your child iron products, antacids that have aluminum or magnesium, or calcium carbonate within 4 hours before or 4 hours after taking this drug.
- If your child takes other drugs, they may need to be given at a different time than this drug. Check with the doctor or pharmacist about the best time to give them.
- Some foods and drinks may affect this drug in your child's body. These include milk, other dairy products, soybean flour (infant formula), walnuts, grapefruit, and foods with fiber. Do not give this drug in soybean-based infant formula. Talk with the doctor to see if your child needs to avoid these foods and drinks at the same time your child takes this drug.
- If your child drinks grapefruit juice or eats grapefruit often, talk with your child's doctor.
- Keep giving this drug to your child as you have been told by your child's

doctor or other health care provider, even if your child feels well.

- There are different brands and forms of this drug. Do not switch between different brands or forms of this drug without calling the doctor who ordered it.

Capsules:

- Give on an empty stomach at least 30 to 60 minutes before breakfast.
- Have your child swallow whole. Do not let your child chew, break, or crush.

Tablets:

- Give on an empty stomach at least 30 to 60 minutes before breakfast.
- Some brands of this drug may be more likely to cause choking, gagging, or trouble swallowing. These products must be given with a full glass of water. Ask the pharmacist if your child needs to take this product with a full glass of water.
- If your child cannot swallow pills, the tablet may be crushed and mixed in 1 to 2 teaspoons (5 to 10 mL) of water right before giving to your child.
- After mixing, give the dose right away. Do not store for future use.

Oral solution (Ermeza and Thyquidity):

- Give on an empty stomach at least 30 to 60 minutes before breakfast.
- Measure liquid doses carefully. Use the measuring device that comes with this drug. If there is none, ask the pharmacist for a device to measure this drug.
- Put this drug right into the mouth using the measuring device.
- Do not use a household teaspoon or tablespoon to measure this drug. Doing so could lead to the dose being too high.

Oral solution (Tirosint-SOL):

- Give on an empty stomach 15 minutes before breakfast.
- You may put this drug right in your child's mouth or you may mix it with water. If mixing with water, empty the contents into a cup with water in it. Squeeze the container over the cup at least 5 times until no more drug comes out. Stir well.
- After mixing, give the dose right away. Do not store for future use.
- Rinse cup with more water and have your child drink.
- Give this drug with water only; do not give with other drinks.
- Store in foil pouch until ready for use.

Injection:

- It is given as a shot into a vein.

What do I do if my child misses a dose?

All oral products:

- Give a missed dose as soon as you think about it.
- If it is close to the time for your child's next dose, skip the missed dose and go back to your child's normal time.
- Do not give 2 doses at the same time or extra doses.

Injection:

- Call your child's doctor to find out what to do.

How do I store and/or throw out this drug?

All oral products:

- Store at room temperature in a dry place. Do not store in a bathroom.
- Protect from heat and light.

Capsules:

- Do not take this drug out of the blister pack until you are ready to give this drug to your child. Give this drug right away after opening the blister pack. Do not store the removed drug for future use.

Tablets:

- Some brands of this drug come in a blister pack. If this drug comes in a blister pack, do not take it out of the blister pack until you are ready to take it. Do not store the removed drug for future use.

Oral solution:

- Store in original container.
- After opening, be sure you know how long the product is good for and how to store it. Ask the doctor or pharmacist if you are not sure.

Injection:

- If you need to store this drug at home, talk with your child's doctor, nurse, or pharmacist about how to store it.

All products:

- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Throw away unused or expired drugs. Do not flush down a toilet or pour down a drain unless you are told to do so. Check with your pharmacist if you have questions about the best way to throw out drugs. There may be drug take-back programs in your area.

General drug facts

- If your child's symptoms or health problems do not get better or if they become worse, call your child's doctor.
- Do not share your child's drug with others and do not give anyone else's

drug to your child.

- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your child's doctor, nurse, pharmacist, or other health care provider.
- If you think there has been an overdose, call your poison control center or get medical care right away. Be ready to tell or show what was taken, how much, and when it happened.

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This generalized information is a limited summary of diagnosis, treatment, and/or medication information. It is not meant to be comprehensive and should be used as a tool to help the user understand and/or assess potential diagnostic and treatment options. It does NOT include all information about conditions, treatments, medications, side effects, or risks that may apply to a specific patient. It is not intended to be medical advice or a substitute for the medical advice, diagnosis, or treatment of a health care provider based on the health care provider's examination and assessment of a patient's specific and unique circumstances. Patients must speak with a health care provider for complete information about their health, medical questions, and treatment options, including any risks or benefits regarding use of medications. This information does not endorse any treatments or medications as safe, effective, or approved for treating a specific patient. UpToDate, Inc. and its affiliates disclaim any warranty or liability relating to this information or the use thereof. The use of this information is governed by the Terms of Use, available at https://www.wolterskluwer.com/en/know/clinical-effectiveness-terms.

Last Reviewed Date

2025-07-14

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If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

Levothyroxine - Last updated on December 12, 2022

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