

Medication Information for Parents and Teachers

Lithium—Eskalith, Lithobid

General Information About Medication

Each child and adolescent is different. No one has exactly the same combination of medical and psychological problems. It is a good idea to talk with the doctor or nurse about the reasons a medicine is being used. It is very important to keep all appointments and to be in touch by telephone if you have concerns. It is important to communicate with the doctor, nurse, or therapist.

It is very important that the medicine be taken exactly as the doctor instructs. However, once in a while, everyone forgets to give a medicine on time. It is a good idea to ask the doctor or nurse what to do if this happens. Do not stop or change a medicine without asking the doctor or nurse first.

If the medicine seems to stop working, it may be because it is not being taken regularly. The youth may be “cheeking” or hiding the medicine or forgetting to take it (especially at school). The doses may be too far apart, or a different dose may be needed. Something at school, at home, or in the neighborhood may be upsetting the youth, or he or she may need special help for learning disabilities or tutoring. Please discuss your concerns with the doctor. **Do not just increase the dose.**

All medicines should be kept in a safe place, out of the reach of children, and should be supervised by an adult. If someone takes too much of a medicine, call the doctor, the poison control center, or a hospital emergency room.

Each medicine has a “generic” or chemical name. Just like laundry detergents or paper towels, some medicines are sold by more than one company under different brand names. The same medicine may be available under a generic name and several brand names. The generic medications are usually less expensive than the brand name ones. The generic medications have the same chemical formula, but they may or may not be exactly the same strength as the brand-name medications. Also, some brands of pills contain dye that can cause allergic reactions. It is a good idea to talk to the doctor and the pharmacist about whether it is important to use a specific brand of medicine.

All medicines can cause an allergic reaction. Examples are hives, itching, rashes, swelling, and trouble breathing. Even a tiny amount of a medicine can cause a reaction in patients who are allergic to that medicine. Be *sure* to talk to the doctor before restarting a medicine that has caused an allergic reaction.

Taking more than one medicine at the same time may cause more side effects or cause one of the medicines to not work as well. Always ask the doctor, nurse, or pharmacist before adding another medicine, whether prescription or over-the-counter. Be sure that each doctor knows about *all* of the medicines your child is taking. Also tell the doctor about any vitamins, herbal medicines, or supplements your child may be taking. Some of these may have side effects alone or when taken with this medication.

Everyone taking medicine should have a physical examination at least once a year.

If you suspect the youth is using drugs or alcohol, please tell the doctor right away.

Pregnancy requires special care in the use of medicine. Please tell the doctor immediately if you suspect the teenager is pregnant or might become pregnant.

Printed information like this applies to children and adolescents in general. If you have questions about the medicine, or if you notice changes or anything unusual, please ask the doctor or nurse. As scientific research advances, knowledge increases and advice changes. Even experts do not always agree. Many medicines have not been approved by the U.S. Food and Drug Administration (FDA) for use in children. For this reason, use of the medicine for a particular problem or age group often is not listed in the *Physicians' Desk Reference*. This does not necessarily mean that the medicine is dangerous or does not work, only that the company that makes the medicine has not received permission to advertise the medicine for use in children. Companies often do not apply for this permission because it is expensive to do the tests needed to apply for approval for use in children. Once a medication is approved by the FDA for any purpose, a doctor is allowed to prescribe it according to research and clinical experience.

Note to Teachers

It is a good idea to talk with the parent(s) about the reason(s) that a medication is being used. If the parent(s) sign consent to release information, it is often helpful to talk with the doctor. If the parent(s) give permission, the doctor may ask you to fill out rating forms about your experience with the student's behavior, feelings, academic performance, and medication side effects. This information is very useful in selecting and monitoring medication treatment. If you have observations that you think are important, do not hesitate to share these with the student's parent(s) and treating clinicians.

It is very important that the medicine be taken exactly as the doctor instructs. However, everyone forgets to give a medicine on time once in a while. It is a good idea to ask the parent(s) in advance what to do if this happens. Do not stop or change the time you are giving a medicine at school without parental permission. If a medication is to be taken with food, but lunchtime or snack time changes, be sure to notify the parent(s) so appropriate adjustments can be made.

You may notice the following side effects at school:

Common Side Effects

The following side effects often go away after 2 weeks or so:

- Weight gain
- Stomachache
- Diarrhea
- Nausea, vomiting—The student may need to take the medicine after a meal or snack to decrease nausea.
- Increased thirst—Allow the student to make extra trips to the water fountain or carry a water bottle.
- Increased frequency of urination—The student may need to go to the bathroom more often.
- Shakiness of hands, tremor—You may notice the student's handwriting getting worse.
- Tiredness, weakness
- Headache
- Dizziness (when standing up quickly—This may happen in the classroom or during physical education). Suggest that the student stand up slowly.

Occasional Side Effects

- Low thyroid function or goiter (enlarged thyroid)—You may notice that the student is tired, feels cold, gains weight, has coarsening of hair, or does less well academically.

- Acne
- Skin rash
- Hair loss
- Irritability

Signs That the Lithium Level May Be Too High— Early Symptoms of Lithium Toxicity

If the student has any of these signs, tell the parent(s) or school nurse immediately:

- Vomiting or diarrhea
- Trembling that is worse than usual or very severe
- Weakness
- Lack of coordination
- Unsteadiness when standing or walking
- Extreme sleepiness or tiredness
- Severe dizziness
- Trouble speaking or slurred speech
- Confusion

Serious (Toxic) Effects of Too Much Lithium—Dangerous Lithium Toxicity

Use your school procedure for a medical emergency if the student experiences any of the following side effects:

- Irregular heartbeat
- Fainting
- Staggering
- Blurred vision
- Ringing or buzzing sound in the ears
- Inability to urinate
- Muscle twitches
- High fever
- Seizure (fit, convulsion)
- Unconsciousness

Overdosing with lithium may cause death. Be sure the lithium bottle is in a secure place and medication is taken under supervision.

All medicines should be kept in a secure place and should be supervised by an adult. If someone takes too much of a medicine, follow your school procedure for an urgent medical problem.

Taking medicine is a private matter and is best managed discreetly and confidentially. It is important to be sensitive to the student's feelings about taking medicine.

If you suspect that the student is using drugs or alcohol, please tell the parent(s) or a school counselor right away.

Please tell the parent(s) or school nurse if you suspect medication side effects.

Modifications of the classroom environment or assignments may be useful in addition to medication. The student may need to be evaluated for additional help or for an Individualized Education Plan for learning or behavior.

Any expression of suicidal thoughts or feelings or self-harm by a child or adolescent is a clear signal of distress and should be taken seriously. These behaviors should not be dismissed as “attention seeking.”

What Is Lithium (Eskalith, Lithobid)?

Lithium is a naturally occurring salt similar to sodium. Lithium is available in the following forms:

Name	Form
Generic	Lithium carbonate tablets and capsules
Eskalith	Lithium carbonate capsules
Generic*	Slow-release lithium carbonate tablets
Lithobid*	Slow-release lithium carbonate tablets
Eskalith CR*	Controlled-release (long-acting) lithium carbonate tablets
Generic liquid	Lithium citrate syrup

*Do not cut or crush; must be swallowed whole.

How Can This Medicine Help?

Lithium can decrease mood swings. It can reduce fighting or destroying of property. Lithium may be prescribed for bipolar disorder (also known as manic depression), certain types of depression, severe mood swings, or very serious aggression.

How Does This Medicine Work?

Lithium acts by stabilizing nerve cells in the brain. This action works in different ways depending on the problem that is being treated. For children with bipolar disorder, it works by reducing mood swings. In adults with bipolar disorder (manic-depressive disorder), it has been shown to help prevent mania relapse and to reduce depression.

For children and adolescents with depression whose symptoms have not responded to treatment with an antidepressant used alone, lithium can help the antidepressant work better.

For children with explosive aggression caused by rage, lithium works by “turning down” the rage and decreasing the impulsivity. The youth then has time to figure out more constructive ways to deal with his or her rage.

How Long Does This Medicine Last?

Lithium must be taken three or four times a day, except the slow-release forms, which may be taken once or twice a day.

How Will the Doctor Monitor This Medicine?

The doctor will review your child's medical history and physical examination before starting lithium. The doctor may order some blood or urine tests to be sure your child does not have a hidden medical condition that would make it unsafe to use this medicine. Be sure to tell the doctor if your child or anyone in the family has a history of kidney or thyroid problems or diabetes. The doctor or nurse may measure your child's height, weight, pulse, and blood pressure before starting the medicine. The doctor may order other tests, such as an ECG (electrocardiogram or heart rhythm test) and an EEG (electroencephalogram or brain wave test).

After lithium is started, the doctor will want to have regular appointments with you and your child to see how the medicine is working, to see if a dose change is needed, to watch for side effects, to see if lithium is still needed, and to see if any other treatment is needed. The doctor will need to do blood tests (to check lithium levels) regularly to make sure that the medicine is at the right dose. These tests may be done once or twice a week at first and then once every month or two after the dose is set. Blood should be drawn first thing in the morning, 10–12 hours after the evening dose and before the morning dose. The doctor also will perform blood and urine tests regularly to check for kidney or thyroid side effects. The doctor or nurse may check your child's height, weight, pulse, and blood pressure.

What Side Effects Can This Medicine Have?

Any medicine can have side effects, including an allergy to the medicine. Because each patient is different, the doctor will monitor the youth closely, especially when the medicine is started. The doctor will work with you to increase the positive effects and decrease the negative effects of the medicine. Please tell the doctor if any of the listed side effects appear or if you think that the medicine is causing any other problems. Not all of the rare or unusual side effects are listed.

Side effects are most common after starting the medicine or after a dose increase. Many side effects can be avoided or lessened by starting with a very low dose and increasing it slowly—ask the doctor.

Allergic Reaction

Tell the doctor in a day or two (if possible, before the next dose of medicine):

- Hives
- Itching
- Rash

Stop the medicine and get *immediate* medical care:

- Trouble breathing or chest tightness
- Swelling of lips, tongue, or throat

Lithium should be taken with food to decrease side effects. Make sure that your child drinks plenty of water when taking lithium to prevent dehydration and lithium toxicity. If side effects appear, give your child one or two glasses of water.

Common Side Effects

The following side effects often go away after 2 weeks or so. If they are troublesome, ask the doctor about lowering the dose.

- Weight gain
- Stomachache
- Diarrhea
- Nausea, vomiting
- Increased thirst
- Increased frequency of urination
- Shakiness of hands (tremor)—Another medication, such as Inderal, may be added.
- Tiredness, weakness
- Headache
- Dizziness

Occasional Side Effects

Tell the doctor within a week or two:

- Tiredness, feeling cold, weight gain, dry skin, coarser hair, or decreased school performance—These could be signs of low thyroid function.
- A lump on the front of the neck—This could be a sign of enlarged thyroid gland (goiter).
- New or worse acne or psoriasis
- Hair loss
- Bed-wetting
- Metallic taste in the mouth
- Irritability

Signs That the Lithium Level May Be Too High— Early Symptoms of Lithium Toxicity

Call the doctor *immediately* and do not give lithium for at least 24 hours:

- Vomiting or diarrhea more than once
- Trembling that is worse than usual or very severe
- Weakness
- Lack of coordination
- Unsteadiness when standing or walking
- Extreme sleepiness or tiredness
- Severe dizziness
- Trouble speaking or slurred speech
- Confusion

Serious (Toxic) Effects of Too Much Lithium—Dangerous Lithium Toxicity

If your child has any of the following, go to the doctor's office or to an emergency room *immediately!*

- Irregular heartbeat
- Fainting
- Staggering
- Blurred vision
- Ringing or buzzing sound in the ears
- Inability to urinate
- Muscle twitches
- High fever
- Seizure (fit, convulsion)
- Unconsciousness

Overdosing with lithium may cause death. You must closely supervise the medicine. You should lock up the medicine if your child or teenager is suicidal or if a young child lives in or visits your home.

Some Interactions With Other Medicines or Food

Please note that the following are only the most likely interactions with food or other medicines.

Soft drinks with caffeine may make side effects worse.

Some anti-inflammatory medicines can increase lithium levels and make side effects worse. Examples are listed in the table below.

Brand name	Generic name
Advil, Motrin	Ibuprofen
Indocin	Indomethacin
Aleve, Anaprox, Naprosyn	Naproxen

Taking lithium with theophylline may decrease lithium levels so that it does not work as well. Certain diuretics such as hydrochlorothiazide can increase lithium levels.

What Could Happen if This Medicine Is Stopped Suddenly?

There are no medical withdrawal effects if lithium is stopped suddenly. However, the problem being treated is likely to come back. If lithium is stopped suddenly, some patients with bipolar disorder may become manic more often and may be more difficult to treat. If your child has been taking lithium for 6–8 weeks or longer, the dose should be decreased gradually (tapered) over 8–16 weeks before stopping it to prevent this effect. Always check with your child's doctor before stopping a medicine.

How Long Will This Medicine Be Needed?

How long your child will need to take lithium depends on the reason that it was prescribed. For children and adolescents with bipolar disorder, lithium is often prescribed for 2 years or longer. Depending on how many times your child has had depression or mania, he or she may need to take the medicine for many years. Some patients require lithium for their entire lives to function normally.

For children and adolescents with severe depression who need lithium plus an antidepressant, lithium is usually needed for at least 5–6 months after the child’s mood returns to normal. This is necessary to prevent the depression from coming back.

For rage, lithium must be continued for several months to years until the patient, his or her family, and the doctor can find different ways to control the rage. The rage usually becomes more controllable as the child grows, becomes more mature, and develops more effective problem-solving and coping skills. Another medicine also may help.

What Else Should I Know About This Medicine?

Store the medicine at room temperature, away from moisture.

Make sure your child drinks plenty of water, especially in hot weather and when exercising. Avoid extremes of salt intake; large amounts of salty foods or a salt-free diet can make the lithium level too low or too high.

Tell the doctor if the pharmacy changes the brand of lithium—extra blood tests of the lithium level may be needed.

When lithium causes increased thirst, young people may drink large amounts of soft drinks. Drinking soft drinks is not a good idea because it can lead to weight gain (from sugar) or nervousness (from caffeine). Drinking water, fruit juice mixed with water, or salt-free seltzer is fine. Your child may need a note to permit frequent trips to the water fountain and bathroom at school.

Stop the lithium and call the doctor if your child develops an illness with vomiting, diarrhea, fever, or loss of appetite. Talk with the doctor if your child wants to diet to lose weight.

Lithium levels may change with the menstrual cycle. If you suspect that this is happening, keep a log or diary and discuss it with the doctor.

Lithium should not be taken during pregnancy because it can cause birth defects. If there is any chance of your teenager becoming pregnant, please talk with the doctor about this concern.

Notes

Use this space to take notes or to write down questions you want to ask the doctor.

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From Dulcan MK (editor): *Helping Parents, Youth, and Teachers Understand Medications for Behavioral and Emotional Problems: A Resource Book of Medication Information Handouts*, Third Edition. Washington, DC, American Psychiatric Publishing, 2007