

BCCH LUPRON DEPOT® PROGRAM FOR PRECOCIOUS PUBERTY

Your endocrinologist has recommended treatment for your child's precocious puberty. Your Endocrine Team can provide you and your child with some resources to help understand precocious puberty.

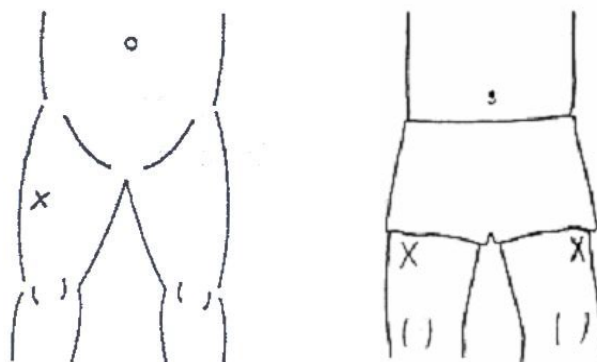
The following websites provide more information:

Hormone Health Network - www.hormone.org/diseases-and-conditions/puberty/precocious-early-puberty

Magic Foundation - www.magicfoundation.org/Growth-Disorders/Precocious-Puberty/

USING LUPRON DEPOT®:

Administration: The medication is given by intramuscular injection, preferably into the vastus lateralis (mid-thigh, lateral aspect; see diagram below). The kit comes supplied with a longer needle than is required for most adults. **Please request a shorter needle** from your nurse or doctor (usually 23-gauge, 1-inch). Some children like to use EMLA® at least an hour prior to the injection to prevent feeling the "poke".



Schedule: The injection is prescribed on a strict schedule every 3-4 weeks (or every 12-13 weeks for the 3-monthly version). Changing the schedule 2-3 days would not be of concern, but irregular administration may actually accelerate puberty. For the first year on treatment, your child may be asked to do a one-hour blood test every 3-6 months to determine that the medication is effective; alternatively, your child may only need to do a simple blood test to determine this. **The testing is done just prior to the regular injection** to measure the hormone levels as the medication starts to "wear off". **Should you have any change in the schedule, please call the Clinic Nurse to discuss your next appointment.**

Cost: Lupron Depot® is approximately \$425 for the 7.5-mg kit, with one kit being used every 3-4 weeks. The 3-monthly formulation is about \$1150 for the 11.25-mg kit and \$1250 for the 22.5-mg kit. It is paid for in a similar way to any other prescription medication used by your family. **You must enroll your family for Fair Pharmacare to work out your yearly deductible.** To register online or check out whether you are registered visit: www2.gov.bc.ca/gov/content/health/health-drug-coverage/pharmacare-for-bc-residents/who-we-cover/fair-pharmacare-plan. Information brochures are also available in all pharmacies. MSP Premium Assistance is a program available to families with an Adjusted

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Net Income under \$24,000. Application is made through the BC Medical Services Plan.
Website: www2.gov.bc.ca/gov/content/health/health-drug-coverage/msp/bc-residents/premiums/regular-premium-assistance.

Abbvie, the drug company that makes Lupron, offers some financial support. Scan the QR code to access a card that can be presented to your pharmacy to provide some financial support.



Website: www.abbviecareassistance.ca/

STEPS FOR GETTING STARTED:

1. Prior to starting treatment, please clarify any payment/insurance issues. Verify that your extended benefits insurer will cover Lupron Depot® 3.75 mg (DIN 00884502) or 7.5 mg (DIN 00836273) every 3-4 weeks, or 11.25 mg (DIN 02239834) or 22.5 mg (DIN 02230248) every 13 weeks. **If your insurance company requires a letter from your Endocrinologist, please fax your doctor directly at 604-875-3231 and provide all relevant information: insurance company name, contact person, fax number, your group number, ID number, and your child's dependent number.** This medication does **not** require BC PharmaCare Special Authority, if the prescription is written by a Pediatric Endocrinologist. Provide your insurance company with this link: <https://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/pharmacare/prescribers/limited-coverage-drug-program/limited-coverage-drug-leuprolide>.
2. The medication may be obtained most conveniently from your local pharmacy. Ensure adequate supply, since missing a dose is detrimental to your child. Please allow a week's notice for your local pharmacy to order the medication, as they may not have it in stock. The cost of medication from your local pharmacy may be more than the cost at BC Children's Outpatient Pharmacy.
3. There is an excellent online video from the manufacturer about how to administer the medication: players.brightcove.net/1029485116001/default_default/index.html?videoId=6144662066001. Scan the QR code with your cellphone to be directed to the video.



4. Arrange for administration of the medicine. If you would like your family doctor to give the medicine, you will need to discuss this with him/her and book appointments according to the schedule recommended by the Endocrinologist. Take your Lupron kit with you and any other information that you have received. Your family doctor may not have received the written summary of your child's most recent visit to the endocrinologist and is welcome to telephone to clarify any details. Some families learn to give the injection themselves with the assistance of a Home Care Nurse.
5. After the first injection, call the Endocrine Nurse to review the schedule and to book your follow-up appointment with the clinic and testing room. Follow up is expected to be every 3-6 months for the first year, and every 6 months thereafter, synchronized with the injection schedule.

WHAT TO EXPECT AFTER THE FIRST INJECTION:

Your child may experience a temporary increase in pubertal signs in the first 6 weeks after the first injection (e.g. increased moodiness, increased breast development and vaginal bleeding in girls; increased aggressiveness in boys). This is normal and will reverse once the medication levels stabilize.

If you have other questions or concerns, please call the Endocrine Clinic Nurse or Endocrinologist.

POSSIBLE SIDE EFFECTS OF PUBERTY BLOCKERS:

1. There is about a 5% (1 in 20) chance that a youth taking puberty blockers can develop an allergy to the medication, which presents as a red, painful sterile abscess (boil) at the injection site. This may start out slowly and get worse with each injection. Rarely, the abscess will have to be drained by making an incision. If a youth develops this problem, the puberty blockers must be stopped or switched to a different form of puberty blocker. If there is a reaction to another depot product, some children are able to tolerate lower doses of non-depot, daily subcutaneous injections of the Lupron medication.
2. The use of puberty blockers with certain other medications (including many medications for mental-health problems) may rarely increase the risk for "prolonged QT syndrome", a serious problem with the heart rhythm. If a child or youth is taking one of these medications, they will be asked to do an ECG (heart rhythm tracing) before and after starting puberty blockers. Please keep your endocrine team up to date on your child's list of other medications and supplements.
3. The use of puberty blockers may rarely cause increased pressure in the brain (intracranial hypertension). This goes away if you stop the medication. The symptoms can include headache, blurry or double vision, loss of vision, pain behind the eye or pain with eye movement, ringing in the ears, dizziness, and nausea. Please let your endocrine team know if you experience any of these symptoms.
4. Puberty blockers can interact with other medications, dietary supplements, herbs, alcohol, and street drugs. Please ensure you let your endocrine team know all of the medications and supplements your child is taking to help prevent any other serious medical problems.
5. Puberty is usually a time when the bones are getting stronger by taking in calcium. Puberty blockers decrease the calcium uptake by the bones. For this reason, it is important that youth on puberty blockers help protect their bones in other ways, including physical activity and getting good calcium and Vitamin D intake. It is not known if using puberty blockers increases the chance for weak bones (osteoporosis) in older age. However, stopping the puberty blocker at an age when your child's peers are starting to develop, and ensuring your child has age-appropriate calcium and vitamin D intake should help mitigate any risk. HealthLink BC has some excellent resources:
 - Vitamin D: <https://www.healthlinkbc.ca/sites/default/files/documents/hfile68n.pdf>
 - calcium: <https://www.healthlinkbc.ca/sites/default/files/documents/hfile68e.pdf>.
6. The medical effects and safety of puberty blockers are not fully understood. As with any medication, there may be long-term risks that are not yet known.

WHEN WILL MY CHILD STOP THE MEDICATION?

This decision can be made between you, your child and your endocrinologist team. Typically, we would stop the medication around the time your child's peers are also starting to show signs of puberty. On average, this is 11 years old in a female body and 12 years old in a male body.

Once the depot medication is stopped, puberty will usually resume in about 3-6 months (longer if you are on the 3-monthly formulation). Your endocrine team will monitor your child's growth and development to ensure they are now progressing forward with puberty. To the best of our knowledge, there are no permanent effects on pubertal development, fertility, ovarian/uterine/breast health or testicular health if puberty blockers are taken and stopped.