

# Puberty Blockers

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## What are puberty blockers?

Puberty blockers are medicines that block puberty-related hormones that make your body go through puberty. Starting puberty blockers is a decision that is different for everyone. To make the most informed decision, this handout is meant to help you understand:

- What is puberty?
- What do puberty blockers do?
- What are the changes that will happen to my body?
- What are the benefits, risks and costs involved?

We will work with you to support the decision that is best for you. You can view a video about puberty blockers at [seattlechildrens.org/gender](http://seattlechildrens.org/gender).

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## How does puberty begin?

Puberty is the process the body goes through to become capable of making a baby (reproduction), as well as reach adult size and brain development. Puberty starts when your brain tells your pituitary gland to start releasing puberty-related hormones. This happens at different ages for different people.

During this time, your body starts to increase the amount of certain puberty-related hormones (Luteinizing Hormone (LH) and Follicle-Stimulating Hormone (FSH)). This causes your testicles to start producing testosterone or your ovaries start producing estrogen. These hormones do not cause acne, pubic or armpit hair – those are caused by other hormones.

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## Body changes in people with testicles (without puberty blockers)

- Testicle growth (this improves the body's ability to make testosterone)
  - Penis growth
  - Pubic hair
  - Increased acne, increased armpit and facial hair
  - Rapid growth (growth spurt)
  - Voice changes (deepens)
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## Body changes in people with ovaries (without puberty blockers)

- Breast changes
  - Changes in body shape, including fuller hips
  - Menstrual periods start (usually more than 2 years after breast changes begin)
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### To Learn More

- Adolescent Medicine  
206-987-2028
- Ask your child's healthcare provider
- [seattlechildrens.org/gender](http://seattlechildrens.org/gender)

### Free Interpreter Services

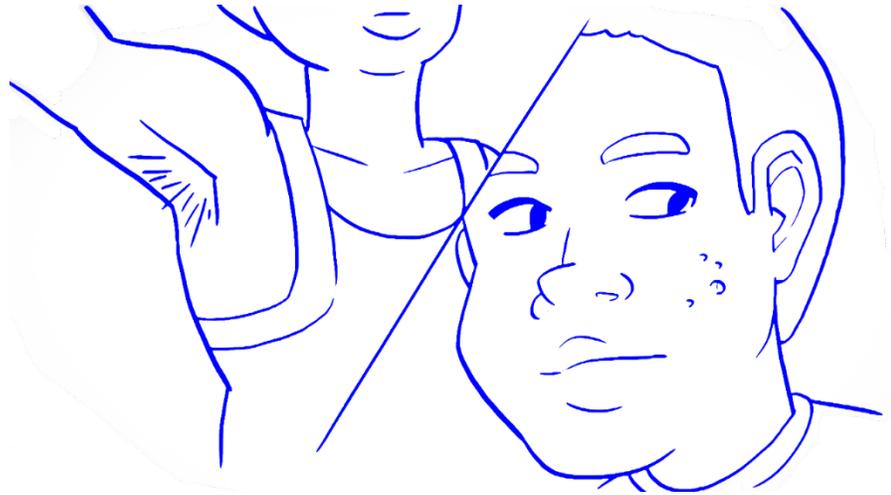
- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

### How do puberty blockers work?

Puberty blockers (called GnRH analogues) cause your body to stop releasing puberty hormones (LH and FSH). This is like hitting a 'pause button' on puberty.

### Will puberty blockers stop all changes in my body?

No, puberty blockers will not stop pubic or armpit hair from growing or improve acne. Puberty blockers only make a difference for the puberty changes that make you look female or male. For example, in bodies with ovaries, breast size may get smaller if they have already started to develop. In bodies with testicles, testicle size may decrease, and penis growth will be halted.



### What will happen if I start puberty blockers late in puberty?

If puberty blockers are started late in puberty, they are not able to reverse most changes that have already happened. However, puberty blockers can stop any further puberty changes.

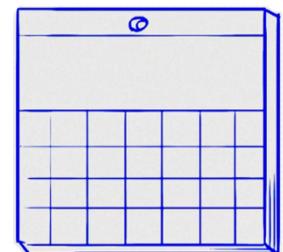
### Are puberty blockers permanent?

No, puberty blockers are not permanent. If you decide to stop puberty blockers without starting cross sex hormones, your body will start going through the puberty of your sex at birth. You can stop the puberty blockers at any time, but we will work with you on how to do that.

### How long will it take them to start working?

It can take 1 to 2 months for puberty blockers to start working. Everyone is a little different. It is hard to know exactly how quickly your body will respond. In the beginning, your body may actually show more signs of puberty, but this will lessen as you continue to take the blockers.

1 TO 2 MONTHS



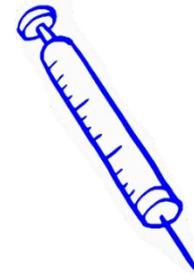
### What are the different kinds of puberty blocking medicines?

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#### Depo Lupron or Leuprolide

This medicine is given as an injection (shot) once every 3 months. If you use this kind of puberty blocker, you will need to come to clinic every 3 months for the injection.

DEPOT LUPRON



#### Histrelin

This medicine is a little plastic rod that is placed under the skin (implant) in the upper arm. The implant works for a little more than 1 year, and sometimes up to 2 years or longer. After it stops working, it needs to be removed and replaced. This can be done in the clinic or in the operating room.

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#### Are these medicines safety approved?

We can safely and legally recommend puberty blockers for you based on our medical experience and judgement and your specific health needs. The Endocrine Society and the World Professional Association for Transgender Health support puberty blockers. The Food and Drug Administration (FDA) approves puberty blockers for children who start puberty at a very young age, but has not approved puberty blockers for transgender children.

#### Will I have pain?

We partner with you to prevent and relieve any pain from taking these medicines as completely as possible. No matter what the level of your pain, we join you to assess and respond right away.

If you have pain from an injection or an implant, you can take Tylenol (acetaminophen) or Advil (ibuprofen) to help relieve the pain. Use these medicines only if recommended by your healthcare provider. Check with the healthcare provider first before taking any type of medicine. Contact your Gender Clinic doctor if the pain from the injection or implant gets worse the next day or you have a rash.

### Will the Depo Lupron or Leuprolide injection hurt?

The injection is given in your arm, leg or bottom. The area where you get it may be sore for about 1 day after the injection.

Numbing cream (topical lidocaine) reduces pain from injections by numbing the skin before the needle stick. Ask us if you are interested in using numbing cream before your injection.

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### Will the Histrelin implant hurt?

If you get the implant inserted in clinic, we will give you an injection to numb your upper arm before the procedure. If you have it done in the operating room, we will give you medicine to make you sleep (anesthesia) during the procedure.

After the procedure, your arm may be sore for about 2 days where it was inserted.

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### What are the risks of puberty blockers?

The long-term safety of puberty-blocking medicines is not completely understood. There may be long-term risks that we do not know about yet.

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### Bone health

Blocking puberty can make your bones weaker (lower bone density). This may get better when you stop the puberty blockers or start cross-hormone therapy. While on puberty blockers, we recommend taking calcium, vitamin D and doing bone strength-building exercises like walking, jumping and weight lifting. We may check your bone health every 2 years while on blockers.

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### Fertility

Taking puberty blockers should not affect your ability to have a baby in the future (fertility).

However, permanent damage to fertility is a concern for people who stay on puberty blockers and then take cross-sex hormones. We recommend talking about this with us to understand the potential impact on your fertility before starting any medicines.

### How much does it cost?

Puberty blocker medicines can be very expensive and the cost can change every year. Some insurance companies cover them. How much your insurance covers depends on your insurance plan and requires authorization from your plan. Sometimes insurance companies will only help pay for Depo Lupron (the injection) and not Histrelin (the implant).

If you have medicine to sleep (anesthesia) to get the Histrelin implant, the costs are higher. If you have questions about coverage, you can call your insurance company. Questions you may want to ask include:

- Are these medicines covered by my insurance plan?
- What is my deductible, copay and coinsurance?
- Have I met my deductible this year?

For help navigating the insurance process, contact:

- Gender Clinic Care Navigator at 206-987-8319
- Seattle Children's Family Accounts Specialist at 206-987-5770

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### Are puberty blockers right for me ?

We will work hard to answer all of your questions about the benefits and risks of puberty blockers. We want you to have a good understanding of what to expect before you decide to start.

Starting puberty blockers can give you time before making more permanent gender decisions, like the starting cross-sex hormones. Puberty blockers prevent some of the male or female specific changes to the body that puberty causes. It can be distressing for transgender people to go through puberty. Puberty blockers can help with this distress by pushing the "pause button" on your puberty, which prevents puberty changes that do not match with your gender identity.

For some people, puberty blockers may reduce the need for future surgeries or other treatments. For example, breast removal (mastectomies) for transgender men, or hair removal and breast surgery for transgender women.



### What about mental health therapy ?

In most cases, we ask that you and your family connect with a mental health therapist experienced in gender identity before and during treatment in the Gender Clinic. A mental health therapist can help you through decisions and changes that happen as you get older, and help your family learn how to support you through those changes.

Mental health therapists can also provide letters that are sometimes requested by doctors or insurance companies for gender-related care. Each person has a different situation. Please ask us about resources that may be right for you and your family.



### When should I start taking puberty blockers?

You begin puberty blockers after your body shows signs of puberty. Usually this is after bodies with testicles have started to have increased testicle size and growth of the penis, and bodies with ovaries have started to have breast changes (breast buds). It is not safe to start puberty blockers before puberty.

### How will my doctor know puberty has started?

Before starting puberty blockers, we might recommend some testing to confirm that puberty has started. These include a physical exam and a blood test called a Leuprolide Stimulation test. This type of blood test checks your hormone levels before and 1 hour after getting a Leuprolide injection. If the test shows that your hormone levels are higher after the injection, it confirms that puberty has begun.

### How long can I stay on puberty blockers?

Puberty blockers are used until you decide you want to either resume the puberty process, or until you are ready to start cross-sex hormones. Because puberty blockers can make your bones weaker over time, it is best to stop taking them after about 4 years.