What are puberty blockers?
Puberty blockers are a type of gender-affirming medical care that some transgender, gender diverse, or questioning youth use to halt unwanted physical changes associated with the hormones their bodies make.
Delaying these changes that may cause more typically feminine or masculine changes in the body may allow more time to explore options before deciding to transition or can be an important step towards transition.

Do I need to take puberty blockers?
For some people, the changes that come with puberty may not be a problem, but for others, putting a hold on the physical changes that come with puberty can be gender affirming and support their gender identity and expression.

How do puberty blockers work?
Using puberty blockers is like hitting a pause button. They work by blocking sex hormones (estrogen or testosterone) produced by either ovaries or testicles. Puberty blockers delay physical changes including:
- Periods
- Growth of breasts
- Growth of facial hair
- Growth of penis
- Widening of hips
- Deepening of voice

Puberty blockers won’t stop acne, body odor, or underarm and public hair development because these changes are not controlled by only the ovaries or testicles.

Are puberty blockers safe?
- The Endocrine Society and World Professional Associate for Transgender Health support the use of puberty blockers for youth who want to delay or prevent unwanted physical changes of puberty.
- The U.S. Food and Drug Administration (FDA) has approved puberty blockers for children who start puberty at a younger than typical age.
- Use of puberty blockers without gender affirming estrogen or testosterone should be done only for a limited timeframe. Speak with your doctor regarding the acceptable amount of time to be on a puberty blocker-only regimen.
What are the side effects of puberty blockers?

What are the short-term side effects of puberty blockers?

- Headache
- Fatigue
- Insomnia
- Muscle aches
- Weight gain
- Mood changes
- Hot flashes
- Softening but not shrinking of breasts (easier to bind)
- Rarely, a red tender lump at the site of injection that may scar after healing
- Occasionally, spotting or irregular periods in patients whose periods are not completely suppressed by puberty blockers. Eventually periods are expected to stop over time.
- Very rarely, pseudotumor cerebri (increase pressure inside your skull) which may result in a very severe headache with vision changes or nausea. If this occurs, please contact your doctor and seek medical care.

What are the long-term side effects of puberty blockers?

- Lower bone density
  - To protect against this, it’s important to get enough exercise, calcium, and vitamin D, which help keep bones healthy and strong.
  - We recommend use of puberty blockers for only a limited time due to this potential concern.
- Delayed growth plate closure, leading to slightly taller adult height
- Less development of genital tissue, which may limit options for genital gender affirming (bottom) surgery later in life
- Other possible long-term side effects that are not yet known

For youth that want to delay or prevent unwanted physical changes, the mental health benefits of puberty blockers may outweigh these risks.

Common questions

What will puberty blockers do to my fertility?

- If puberty blockers are stopped, puberty will continue and there will be no impact on future fertility. If the decision is made to start gender affirming hormone therapy (estrogen or testosterone), then there may be permanent/irreversible effect on fertility due to hormone therapy. Consider future fertility before starting any hormone therapy and speak with your doctor about your options.

If I am interested in taking puberty blockers, what’s next?

- Your provider will review both the potential benefits and risks of puberty blockers with you to help you understand the changes you can expect, address your concerns, and answer your questions.
- Your provider will ask you about other prescription medications and substances you take, including diet supplements and herbs, alcohol, nicotine, marijuana, street drugs, and other hormones. Letting your provider know about everything you use will help them take care of you safely.
How are puberty blockers given and what are my options?

**Injections**
- Puberty blockers are delivered via needle into a large muscle group, usually the thigh or buttock areas.
- Injections can be given at many Kaiser Permanente clinics with dosing options every 1-6 months. Your provider can explain the details around choosing an appropriate regimen for your personal situation.

**Implants**
- Rarely, some patients are clinically required to receive puberty blocker implants in instead of injections. Implants are placed every 12-24 months under the skin of the upper arm in an office visit or minor surgical procedure.

What are some other medications commonly used for gender affirming treatment?
- Puberty blockers like leuprolide (Lupron) and histrelin (Vantas) are medications that block your body's estrogen. Puberty blockers will not cause maculinizing effects.
- Puberty blockers may be used alone or with testosterone therapy based on your specific needs.

Patients are encouraged to continue care with a gender affirming therapist and/or regularly attend a transgender and gender diverse therapy group while on puberty blockers or gender affirming hormone therapy.