

**Patient Information**  
**PUBERTAL BLOCKERS FOR PATIENTS IN EARLY PUBERTY**

Before considering a medication for your child to put puberty “on hold”, there are several things you need to know. There are possible advantages, disadvantages and risks with pubertal blockers. We have listed them here for you. It is important that you understand all of this information before your child begins the medication.

Please read the following carefully and ask us any questions. We want you to be very comfortable and sure of what pubertal blockers offer your child.

**What are the different medications that can help to stop the physical changes of puberty?**

The main way that the physical changes of puberty can be put on hold is by blocking the signal from the brain to the organs that make the hormones of puberty. These hormones are estrogen and testosterone. Estrogen is made by the ovaries. Testosterone is made by the testicles.

The medications are called pubertal blockers (the medical name for the blocker is GnRH agonist). Pubertal blockers are available as an injection or as an implant which is placed under the skin. These medications are effective for any child regardless of gender. They can be started just after the early physical changes of puberty.

Every medication has risks, benefits, and side effects that are important to understand before starting. It is also important to know how they work.

**Medications for Blocking Puberty**

Puberty Blockers are used to help temporarily suspend or block the physical changes of puberty.

It can take several months for the medication to be effective. No one can predict how quickly or slowly your child’s body will respond.

This medication is not specifically made for the purpose of blocking puberty (they are not FDA approved for this purpose) in transgender youth. However, pediatric endocrinologists (children’s doctors who work with hormones and puberty), recommend these medications if the physical changes of puberty need to be postponed. They have been in use for this purpose for many years.

The medication is not permanent. If injections are stopped, in about six months puberty will restart at the developmental stage they were at when we started hormone blockers.

By taking these medications, the body will not be making the hormones of puberty, testosterone or estrogen. At this time, we are “putting on hold” the hormones of puberty and the changes that they would cause.

By taking these medicines we may be helping to avoid the unhappiness and trauma of an unwanted puberty. This allows for the opportunity to develop in the affirmed gender, with a better fit between body and mind.

By taking these medicines we may be helping to avoid the need for surgeries and other treatments (e.g. mastectomies for transmen, tracheal shaving or electrolysis for transwomen) that would be required to reverse the effects of puberty.

Especially with transgender girls (assigned male at birth; identify as female) this may also improve safety and integration into society in adulthood. Many of the masculinizing effects of puberty are irreversible and make it challenging to “pass” as female afterward.

We strongly recommend that your family participate in therapy with a clinician experienced in gender issues while your child is taking the pubertal blockers.

### **Risk of Pubertal Blockers**

The side effects and the safety of these medicines are not completely understood. There may be long-term risks that are not yet known.

These medications will halt growth. This can be beneficial for transgender girls to achieve a typical female height. In transgender boys, delaying the onset of puberty may actually make him slightly taller (one of the reasons that girls are usually shorter than boys is because puberty is started earlier).

There may be a stalling of typical adolescent cognitive or brain development while on these medications. This will resume when they stop taking the blocker.

Hormones increase bone density during adolescence, and this is delayed by using pubertal blockers. We may recommend testing to monitor bone density while using pubertal blockers.

Transgender people may experience harassment and discrimination. We are happy to provide resources that will support your family if this happens. You may have to advocate as a family to participate safely and free from harassment in schools and other activities.

### **Prevention of Medical Complications**

Taking puberty blockers requires periodic check-ups to make sure the body is responding appropriately.

Using these medicines to block puberty is an off-label use. This means it is not approved by the Food and Drug Administration for this specific use. The medication that is recommended is based on the judgement and experience of our health care provider and is supported by the Pediatric Endocrine Society.

You can choose to stop taking these medications at any time. If you make this decision, you should consult your clinician to learn how to do this safely.