# INFORMATION ON PUBERTAL BLOCKERS FOR PATIENTS IN LATE PUBERTY

Before considering a medication to stop additional effects of sex hormone, 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 this information before beginning 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 you.

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

The main way that the additional effects of sex hormone can be stopped is by blocking the signal from the brain to the organs that make the sex hormones. 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 anyone regardless of gender. They can be started just after the early physical changes of puberty, but are sometimes used in older adolescents who have gone through puberty. In these cases, the pubertal blockers are used to stop additional effects of sex hormone (like further body changes and menstruation) as well as to allow for lower doses of sex hormone in the future.

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 body will respond. If you are in the late stages of puberty or have completed puberty, these changes may be subtle or not noticeable.

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 you were at when we started hormone blockers. If you were already done with puberty, the body will again be exposed to sex hormone and things like menstruation or other body changes will resume.

When taking these medications, the body will not be making the hormones of puberty, testosterone or estrogen. During 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, menstruation, or other body changes.

#### **Risk of Pubertal Blockers**

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

The side effects of using a pubertal blocker include hot flashes, fatigue, alterations in mood, reduced bone density, and a heavy flare bleed prior to cessation of menses for patients who have previously menstruated or were very near beginning to menstruate.

It is important to consider impacts on fertility and family planning.

## **Prevention of Medical Complications**

Using 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, consult our clinician to learn how to do this safely.