

Fact Sheet: Risks of Puberty Blockers

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What is Puberty?

Puberty is a critical time-limited period of healthy physical, cognitive, emotional and social development during which an infertile child becomes a fertile and more mature adolescent.

What Are Puberty Blockers (PBs)?

Puberty blockers are gonadotropin releasing hormone agonists (GnRH) which are generally safe and effective for treating precocious puberty in children, some gynecological conditions including endometriosis in women, and prostate cancer in men. Lupron is the brand name of one commonly prescribed GnRH agonist in the U.S..¹

Is it possible for PBs to be dangerous for stopping normal puberty in gender dysphoric children, but safe to treat precocious puberty, endometriosis and prostate cancer?

Yes. Disrupting normal puberty is objectively harmful because puberty is not a disease. In contrast, precocious puberty, endometriosis and prostate cancer are diseases; they disrupt normal development, function and health. The proper use of medicine restores health, function and normal development. In the context of these diseases, the potential for Lupron to restore and/or improve patient health usually outweighs Lupron's potential negative side effects (which are still disclosed to patients as a matter of informed consent). This is not the case with gender dysphoria.

How is the situation different for children with gender dysphoria?

Children with gender dysphoria are physically healthy. They do not have a disease of the body; they are emotionally and psychologically distressed. Prescribing puberty blockers to these children permanently disrupts their physical, cognitive, emotional and social development. This disruption causes a permanent loss because no one can return the time they have lost in normal pubertal development should they wish to desist; that amount of normal pubertal development – be it several months or several years – is permanently stolen from them. This matters because prior to the routine use of puberty blockers, the vast majority of gender dysphoric youth desisted

¹ <https://my.clevelandclinic.org/health/body/22525-gonadotropin-releasing-hormone>

and identified with their sex by young adulthood.^{2,3} With the routine use of puberty blockers, the vast majority of gender dysphoric children instead identify as transgender, use dangerous cross-sex hormones, and may even pursue cross-sex surgeries.^{4,5,6,7,8} Blocking normal puberty in these emotionally suffering children robs them of the developmental period during which many might otherwise outgrow their dysphoria and embrace their bodies.

Neuro-psychological Side-effects of puberty blockers:

Lupron’s package insert *for use in treating children with precocious puberty* warns of emotional lability, irritability, seizures, brain swelling, headache, blurred vision and loss of vision as potential side effects and recommends *monitoring patients for development of new or worsening psychiatric symptoms.*⁹

After experimental treatment with puberty blockers, the British Medical Journal reports ***no psychological benefit to youth with gender dysphoria.*** According to Oxford University Professor Michael Biggs, "there was no statistically significant difference in psychosocial functioning between the group given blockers and the group given only psychological support. In addition, there is unpublished evidence that after a year on [puberty blockers] children reported greater self-harm, and the girls also experienced more behavioral and emotional problems and expressed greater dissatisfaction with their body—so puberty blockers exacerbated gender dysphoria."¹⁰

² Kenneth J. Zucker (2018) The myth of persistence: Response to “A critical commentary on follow-up studies and ‘desistance’ theories about transgender and gender non-conforming children” by Temple Newhook et al. (2018), *International Journal of Transgenderism*, 19:2, 231-245, DOI: [10.1080/15532739.2018.1468293](https://doi.org/10.1080/15532739.2018.1468293)

³ Ristori J, Steensma TD. Gender dysphoria in childhood. *Int Rev Psychiatry*. 2016;28(1):13-20.

⁴ Brik T, Vrouenraets LJJJ, de Vries MC, Hannema SE. Trajectories of adolescents treated with gonadotropin releasing hormone analogues for gender dysphoria [published online ahead of print March 9, 2020]. *Arch Sex Behav*. doi:10.1007/s10508-020-01660-8

⁵ Kuper LE, Stewart S, Preston S, Lau M, Lopez X. Body dissatisfaction and mental health outcomes of youth on gender-affirming hormone therapy. *Pediatrics*. 2020;145(4):e20193006

⁶ Annelou L.C. de Vries, et al., “Puberty suppression in adolescents with gender identity disorder: A prospective follow-up study” *The Journal of Sexual Medicine* 8(8): 2276–2283 (2011).

⁷ Wiepjes CM, Nota NM, de Blok CJM, et al. The Amsterdam cohort of gender dysphoria study (1972-2015): trends in prevalence, treatment, and regrets. *J Sex Med*. 2018;15(4):582–590

⁸ Carmichael P, Butler G, et al. Short-term outcomes of pubertal suppression in a selected cohort of 12 to 15 year old young people with persistent gender dysphoria in the UK. medRxiv 2020.12.01.20241653.

⁹ Lupron Depot Package insert

https://www.lupronped.com/about-lupron-depot-ped?cid=ppc_ppd_msft_Lupron_Branded_lupronped.com_Phrase_USLUPR220485

¹⁰ <https://www.bmj.com/content/372/bmj.n356.full>

Bone Mass & Height side-effects of puberty blockers:

Up to one third of gender dysphoric patients treated with puberty blockers have a lower bone density than 97.7% of their age matched peers.¹¹ A study aiming to assess development of bone mineral density during GnRHa therapy and subsequent sex reassignment procedures until age 22 showed loss of bone mass; these adolescents do not achieve their optimal height or bone density.¹²

Permanent Sterility and Loss of Capacity for Sexual Fulfillment from Puberty Blockers:

A UCSF publication on fertility options for transgender persons state that “currently it is not possible for children who have not undergone natal puberty (and who may have used gender affirming hormones) to preserve gametes.”¹³ Dr. Marci Bowers, a vaginoplasty surgeon who transitioned at 38 has said that “every single child or adolescent who was truly blocked at Tanner Stage 2 [when hormones begin their work of advancing a child to adulthood] has never experienced orgasm. I mean, it’s really about zero.”¹⁴

Side-effects on I.Q. and Cognitive Maturation from Puberty Blockers are Unknown:

Since sex hormones normally secreted during puberty are responsible for the organizational development of the brain, and puberty blockers prevent this normal secretion, it is possible that gender dysphoric youth could be cognitively impaired.¹⁵ Lupron impairs memory in adults taking it to treat gynecological conditions, breast cancer and prostate cancer.¹⁶

¹¹Biggs M. Revisiting the effect of GnRH analogue treatment on bone mineral density in young adolescents with gender dysphoria *Journal of Pediatric Endocrinology and Metabolism*, vol. 34, no. 7, 2021, pp. 937-939.

<https://www.degruyter.com/document/doi/10.1515/jpem-2021-0180/html>

¹²Daniel Klink, Martine Caris, Annemieke Heijboer, Michael van Trotsenburg, Joost Rotteveel, Bone Mass in Young Adulthood Following Gonadotropin-Releasing Hormone Analog Treatment and Cross-Sex Hormone Treatment in Adolescents With Gender Dysphoria, *The Journal of Clinical Endocrinology & Metabolism*, Volume 100, Issue 2, 1 February 2015, Pages E270–E275.

<https://academic.oup.com/jcem/article/100/2/E270/2814818?login=false> (2015)

¹³ Amato P. “Fertility Options for Transgender Persons.” UCSF Transgender Care. June 17, 2016.

<https://transcare.ucsf.edu/guidelines/fertility>

¹⁴ Shrier A. “Top Trans Doctors Blow Whistle on ‘Sloppy’ Care. In exclusive interviews, two prominent providers sound off on puberty blockers, ‘affirmative’ care, the inhibition of sexual pleasure, and the suppression of dissent in their field.” The Free Press. October 4, 2021. <https://www.thefp.com/p/top-trans-doctors-blow-the-whistle?s=r>

¹⁵ Vigil P, et al., “Endocrine Modulation of the Adolescent Brain: A Review” *Journal of Pediatric & Adolescent Gynecology* 24(6):330-337 (December 2011).

¹⁶ Craig MC, Fletcher PC, Daly EM, Rymer J, et al. Gonadotropin hormone releasing hormone agonists alter prefrontal function during verbal encoding in young women. *Psychoneuroendocrinology*. 2007;32(8-10):1116-27. DOI: [10.1016/j.psyneuen.2007.09.009](https://doi.org/10.1016/j.psyneuen.2007.09.009)

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