



Research Points: Puberty Blockers

Welcome to the *We Are Allies Research Points*. Here you will find research-based information about gender-affirming care and transgender, Two-Spirit, and nonbinary (TTNB) youth. These resources were developed to support the *We Are Allies project*.

In 2023, a team of researchers conducted an environmental scan to identify misinformation messages being shared online related to gender-affirming care for TTNB youth. The team reviewed published research to systematically gather accurate information that addresses common misinformation messages. These have been organized by topic and can be found in this series of Research Points. References are provided for people who would like to learn more.

If you have questions about accessing gender-affirming healthcare for yourself or a loved one, we encourage you to reach out to a trusted healthcare provider or organization.

Introduction to puberty blockers

For some TTNB youth, delaying or pausing the progression of puberty can be an important part of a gender-affirming care plan. Puberty blockers are medications that can be prescribed at or after the beginning of puberty (Tanner Stage 2 of adolescent development) to temporarily pause puberty, as a treatment for gender incongruence.¹ Puberty blockers work by temporarily blocking the body's production of sex hormones.¹ This means puberty will resume when the medication is stopped.¹

Research about puberty blockers

The following is a summary of research findings showing that puberty blockers improve TTNB youth well-being and can be safely prescribed to TTNB youth.

Puberty blockers improve TTNB youth well-being

Puberty blockers improve mental health and overall well-being. As a result of receiving puberty blockers, TTNB youth report experiencing better overall well-being.² Many youth report feeling happier, feeling more comfortable, and experiencing better social relationships after starting puberty blockers.³ Youth report high rates of satisfaction with puberty blockers, both during and after treatment.⁴⁻⁶ Research also shows that access to puberty blockers reduces suicidality, self-harm, and symptoms of depression.^{2,7,8}



Puberty blockers provide time to make decisions about future gender-affirming care. One of the objectives of puberty suppression is to provide time for youth to make decisions about future gender-affirming care.¹ By pausing distressing changes related to puberty this treatment can provide youth with the time they need to explore gender and consider future options.^{1,9} This may include whether hormone therapy is a desired goal.

For some youth, even though puberty blockers help, gender-related distress continues.

Puberty blockers can help with mental health and gender-related distress. However, they may not relieve all forms of distress. Body dissatisfaction may continue throughout treatment with puberty blockers.² Hormone therapy may be needed in the future to support gender health and embodiment goals.²

Puberty blockers are used safely with TTNB youth

Puberty blockers have been safely used with TTNB youth since the 1990s. For decades, doctors have prescribed puberty blockers for children who started puberty too early (precocious puberty).¹⁰ The physiological and psychological safety of puberty blockers are well-established in these patients.^{11,12} Puberty blockers have been safely and effectively used with TTNB youth to support gender health since the 1990s.^{4,5,13,14} They became part of routine practice with TTNB in the 2000s.¹⁴ Research shows that TTNB youth can use puberty blockers safely, in terms of cardiovascular and metabolic health.¹⁵⁻¹⁹

Once a person stops taking puberty blockers or starts hormone therapy, puberty continues.

Puberty blockers temporarily pause puberty, so if a person stops taking blockers, puberty will resume from the point it was paused.¹ Youth who start hormone therapy treatment during or after taking puberty blockers will experience changes aligned with the hormones they are taking.

As with all medications, there are risks of side effects. Possible side effects of puberty blockers include, but are not limited to, headaches, low energy, mood changes, hot flashes, and reaction at the site of the injection that can cause pain, swelling and redness.^{1,20}

Youth should talk with their healthcare provider about whether puberty blockers are right for them. This includes talking about benefits, risks, and preventative care. Healthcare providers can support youth in mitigating risks and side-effects. For example, puberty blockers delay the building of bone density that happens during puberty.²¹ Therefore, healthcare providers may recommend that youth starting puberty blockers take vitamin D and calcium supplements, and take part in weight-bearing exercise while benefiting from puberty blockers.²¹ Youth considering taking puberty blockers and hormone therapy should discuss potential effects on fertility with their healthcare provider.⁹

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