

WHAT ARE 'PUBERTY BLOCKERS'?

'Puberty blockers' is a marketing-friendly term for powerful drugs known medically as gonadotropin-releasing hormone agonists (GnRHa).

WHAT DO THEY DO?

They block the production of sex hormones (androgens and oestrogens) by disrupting the natural signalling processes between the brain (the hypothalamus and pituitary gland) and the gonads.

WHAT ARE THEY USED FOR?

GnRHa are used to treat advanced prostate cancer, breast cancer, endometriosis, central precocious puberty*, and to chemically castrate sex offenders.

Since the late 90s, GnRHa have also been experimented with to 'pause puberty' in minors experiencing psychological distress with their sex (gender dysphoria). **GnRHa have never been licensed for the treatment of gender dysphoria anywhere in the world.**

In the UK, the use of these drugs as 'puberty blockers' by the NHS does not come with regulatory approval as the appropriate safety studies are not available.

*Where a child shows signs of puberty before the age of 8 (female) or 9 (male)

DO THEY REDUCE GENDER DYSPHORIA?

In 2021 the UK National Institute for Health & Care Excellence (NICE) published a systemic evidence [review](#), concluding that 'puberty blockers' lead to little or no change in gender dysphoria.

The Health Research Authority has [raised concerns](#) that GnRHa may paradoxically result in the **persistence** of gender dysphoria – locking the patient in rather than helping them 'buy time' – which could be related to GnRHa halting critical brain development.

The Tavistock's 2011 [Early Intervention Study](#) also indicates that GnRHa are not a temporary 'pause button' but rather the entry point to a life long medical pathway as 98% progressed to cross-sex hormones.

On the contrary, allowing natural puberty to occur helps to reduce or resolve gender dysphoria for the overwhelming majority of young people who may well grow up to simply be LGB (see page 6).

Dr Polly Carmichael, director of GIDS at The Tavistock, [commented](#) in 2015: "There were quite simplistic arguments that if you have the blocker all the problems disappear. In our experience all the problems do not go away."

ARE THEY SAFE AND / OR REVERSIBLE?

"The current evidence base does not support informed decision making and safe practice in children" – Carl Heneghan, Director Centre for Evidence-based Medicine (CEBM), [British Medical Journal](#) (2019).

ARE THEY SAFE AND / OR REVERSIBLE? *Cont.*

International medical opinion, including the NHS, increasingly acknowledges the irreversible nature of the effects of 'puberty blockers' (physical and / or psychological), and urges caution over the many risks, medical unknowns and lack of evidence for their use.

Even in 2012 Professor Russell Viner, hormone specialist at The Tavistock, [stated](#) "We are dealing with the unknown," while Dr Polly Carmichael, Director of the Tavistock, stated in [2015](#) "The blocker is said to be completely reversible, which is disingenuous because nothing's completely reversible."

CHANGING MEDICAL OPINION - WORLDWIDE

- UK, 2020: The NHS [revises](#) its online guidance, removing the text "The effects of treatment with GnRH analogues are considered to be fully reversible," and replacing it with "Little is known about the long-term side effects of puberty blockers in children..." and "It is not know what the psychological effects may be."
- Finland, 2020: The Finish Health Authority (Palko / COHERE) issues new [guidelines](#) stating psychotherapy should be first-line treatment, not 'puberty blockers'.
- Sweden, 2021: The Karolinska Institutet (Sweden), long considered the 'gold standard' in transgender healthcare, [ends](#) the use of 'puberty blockers' outside of research settings.

CHANGING MEDICAL OPINION - WORLDWIDE *Cont.*

- US, 2021: Dr Marci Bowers, leading transgender surgeon and board member of The World Professional Association for Transgender Health (WPATH) [states](#): “I’m not a fan of blockade at Tanner Stage 2* anymore, I really am not... Maybe we zigged a little too far left in some cases.”
- Canada, 2021: Health Canada issues a warning that Lupron can lead to ‘pseudotumor cerebri’ in paediatric patients (pressure building inside the skull, resulting in head aches, blurred vision or vision loss) .
- Sweden, 2022: Sweden’s National Board of Health & Welfare issues a national [policy update](#) mirroring the Karolinska Institutet.
- France, 2022: France’s National Academy of Medicine [urges](#) “the greatest caution” when administering GnRHa for gender dysphoria.
- US, 2022: the FDA adds a warning to the labelling of GnRHa. The warning applies specifically to their use in disrupting puberty and informs users of the risk of brain swelling and vision loss.
- New Zealand, 2022: The Ministry of Health withdraws its advice that “Puberty blockers are a safe and fully reversible medicine.”

*In females this is the stage where breast buds begin to develop. In males the testes and penis begin to grow in size

POTENTIAL RISKS / EFFECTS

- Short term: headaches, hot flushes, weight gain, tiredness, low mood and anxiety, reduction in bone density, bone fractures, blurred vision, vision loss.
- The Karolinska Institutet (Sweden) has also reported liver damage, unexplained weight gains, mental health problems, spinal fractures, osteopenia, and failure to grow.
- Increase in behavioural and emotional problems in girls, including an increase in wanting to “deliberately try to hurt or kill self.”
- Loss of fertility / sterilisation as gametes won't develop.
- Loss of sexual function and capacity to orgasm: young people given GnRHa at Tanner Stage 2 who go onto cross-sex hormones will remain 'orgasmically naïve' which may impact their ability to enjoy intimate relationships.
- Level of puberty resumption after GnRHa use is stopped: unknown.
- Effects on brain development: unknown. Concerns raised about negative impact on IQ, long-term spatial awareness, reaction time and missing out on a window for critical cognitive development.

ALTERNATIVE TREATMENT

- Psychotherapy / psychoanalysis / group therapy / parent-counselling:
 - Sweden, Finland and France emphasised the need for psychotherapy when ending / restricting their use of 'puberty blockers' or urging caution
- Natural puberty: WPATH [recognise](#) that the overwhelming majority of young people experiencing gender dysphoria will desist as they go through natural puberty:
 - 77% - 94% in a boys-only study, with most likely to be gay
 - 73% - 88% in a mixed-sex study)

WHY THIS MATTERS TO US

“As the international medical community increasingly recognises the importance of psychotherapy over early medical treatment, poorly written legislation aimed at banning ‘transgender conversion therapy’ could seriously impede the delivery of this essential psychological treatment.

It is imperative that objective, explorative talking therapies are explicitly protected in any ‘conversion therapy ban’ legislation brought forward so that a young person’s identity and distress may be considered in full without going down a controversial and contested medical path with irreversible consequences which they may come to regret.

This is particularly pertinent in light of the increasing number of detransitioners coming forward who feel they lacked the right level of mental health support both before and during medical transitioning, often at a huge physical and psychological cost. Many of them cite struggling with being same-sex attracted as a motivator for adopting a trans identity.

Too many young gays and lesbians have already fallen through the cracks – we cannot afford for poorly drafted bills to widen these cracks even further.”