Rainbow Care

Masculinising Hormone Therapy

Expected changes on masculinising hormone therapy

Typical changes from testosterone (varies from person to person)

Average timeline	Effect of testosterone
1–3 months after starting testosterone	• decreased oestrogen in the body • increased sex drive • vaginal dryness • increased growth, coarseness, and thickness of hairs on arms, legs, chest, back, & abdomen • oilier skin and increased acne • increased muscle mass and upper body strength • redistribution of body fat to the waist, less around the hips • increased sweating and change in body odour • mood changes may occur including increased aggression, motivation and sexual desire
1–6 months after starting testosterone	• menstrual periods stop • lower/ bottom growth (clitoris) - typically 1-5 cm
3–6 months after starting testosterone	• voice starts to crack and drop within first 3–6 months, but can take a year to finish changing
1 year or more after starting testosterone	• gradual growth of facial hair (usually 1–4 years) • possible balding

Limitations of masculinising hormonal therapy

Once you have stopped growing after puberty, testosterone will not affect the size and shape of your bones. It will not increase your height and not change the size of your hands and feet.

While testosterone will typically cause your voice to drop, it does not change intonation or your speech pattern and you may wish to have speech therapy to modify these.

Testosterone may slightly change the shape of your breasts by increasing muscle and decreasing fat but it does not make breast tissue go away.

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Information for non-binary / gender diverse individuals

It is possible to have testosterone and oestrogen hormonal levels that are between the female and male ranges. Unfortunately, there is a lack of evidence for this practice as most research has only considered binary gender options. Some sex hormone, whether from your own body or from replacement is recommended for non-binary and gender diverse individuals as it is known that low sex hormones in both cis genders can cause unwanted side effects.

It is very difficult to tailor masculinising hormonal therapy to select for some features and not others. It is possible to cease hormonal therapy after some permanent changes have occurred.

It is important to understand that bottom (clitoral) growth and deepening of the voice may occur even at low levels of testosterone and thus later changes such as the development of facial hair and masculine body shape are difficult to achieve without bottom growth or voice deepening.

There are non-hormonal alternatives for supporting non-binary/ gender diverse people in gender affirmation, including speech therapy, attire and non hormonal hair treatment options, if clitoral growth or maximum masculinisation is not desired.

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Fertility and Contraception

The long term effect of masculinising hormonal therapy on the ability to have children is not known, thus it is important to consider your beliefs and desires regarding children and how your views may evolve in the future. This may be a difficult topic to think about for many reasons and it can be difficult to predict how you may feel in the future. I encourage you to talk to the important people in your life to help with making this decision and to also be aware that it is okay to change your opinion with evolving life experience and this topic can be revisited with your doctor at any point in your journey.

Masculinising hormonal therapy (testosterone) can impair your ability to ovulate. Periods usually stop after about 6 months of therapy. It appears that the effects of testosterone on reproductive function are temporary and reversible. Studies have shown that ovaries can work normally again and unassisted pregnancy can occur after stopping testosterone, even after long term treatment. However, long term data are lacking so return to baseline fertility cannot be guaranteed.

It is possible to collect eggs for fertility preservation. The eggs can be frozen or injected with sperm to create embryos which can also be frozen. Egg collection requires hormonal injections and a minor invasive procedure where the eggs are collected from the ovary via the vagina. Eggs can currently only be stored for 10 years. Egg freezing requires a referral to a fertility specialist and Dr Holly can arrange this for you if you are interested in exploring this option further. There are significant fees involved in egg freezing and fertility preservation is not a guarantee of biological children.

It has been shown that it is possible to undertake egg freezing, carry a pregnancy (if you have a uterus) and breast/chest feed (whether you carried the pregnancy or not) after gender affirming hormonal treatment has started but you have to stop testosterone treatment for some time for these to be undertaken safely and effectively. The evidence to support this only comes from a few case reports so positive outcomes for you are not guaranteed. If you are considering carrying a pregnancy yourself please talk to your doctor as it is important to stop testosterone as it can have harmful effects on a foetus. It is not clear how long prior to a pregnancy it is needed to stop testosterone.

Adoption is a means to having children but adoption in Australia is a lengthy and difficult process with significant barriers and can take years from the time of deciding to adopt to the time the adoption is finalised.

While masculinising hormonal therapy may affect your fertility, it is NOT a contraceptive; it does not prevent pregnancy and lack of periods does not mean you cannot fall pregnant. Thus if you have intercourse that could result in pregnancy, it is important to discuss the risk of pregnancy with that sexual partner and use appropriate contraception even if you do not mind falling pregnant. Testosterone can have harmful effects on a foetus and it is important to stop treatment before any pregnancy. Contraception options include condoms or progesterone only contraception (e.g. the mini pill or implants) which can have the added benefit of menstrual suppression in some individuals. Permanent contraception or sterilisation procedures include tubal ligation, hysterectomy and oophorectomy which require a surgical procedure.