Rainbow Care

Feminising Hormone Therapy

Expected changes on feminising hormone therapy

Typical changes from Oestrogen (varies from person to person)

Average timeline	Effect of oestrogen
1–3 months after starting oestrogen	• softening of skin • decrease in muscle mass and increase in body fat • redistribution of body fat to buttocks and hips • decrease in sex drive • fewer instances of waking up with an erection or spontaneously having an erection; some trans women also find their erections are less firm during sex, or can't get erect at all • decreased ability to make sperm and ejaculatory fluid • possible mood changes
Gradual changes (maximum change after 1–2 years on oestrogen)	• nipple and breast growth • slower growth of facial and body hair • slowed or stopped balding • decrease in testicular size • possible atrophy (shrinkage) of the penis

Typical changes from Anti-Androgens (varies from person to person)

Average timeline	Effect of blocking testosterone
Testosterone 1–3 months after starting antiandrogens	• decreased testosterone in the body • decrease in sex drive • fewer instances of waking up with an erection or spontaneously having an erection; some trans women also have difficulty getting an erection even when they are sexually aroused; some have painful erections • decreased ability to make sperm and ejaculatory fluid
Gradual changes (usually at least 2 years)	• slower growth of facial and body hair • slowed or stopped balding • slight breast growth (reversible in some cases, not in others)

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Limitations of feminising hormonal therapy

Feminising hormonal therapy does not affect your vocal cords, thus will not change the pitch of your voice. If speaking at a higher, more 'feminine' pitch is desired, feminising hormonal therapy will not have any benefit and you will need to train your voice, which can be aided by speech therapy and surgery.

Feminising hormonal therapy decreases growth of androgen-dependent hair as well as making your hair finer. With time, the speed and density of hair growth also decreases however feminising hormonal therapy is often not enough to control facial hair and other temporary (e.g. shaving, waxing) or permanent (e.g. laser, electrolysis) hair reduction options may be required to achieve your desired outcome.

Once your body has been exposed to testosterone, it is not possible to change its effects on your skeletal structure. Feminising hormonal therapy will not change your height nor the size and shape of your hands, jaw, pelvis and Adam's apple.

Feminising hormonal therapy commonly reduces libido (or sex drive) and ability to have an erection. If it is important to you to maintain erectile function it is possible to keep your testosterone at a higher level but this may also limit the feminising effects of your treatment so a balance may need to be reached between your priorities.

Unfortunately, studies demonstrate that many of those desiring breast development as a result of their feminising hormonal therapy will be dissatisfied with the final outcome. This is despite reports that the average final breast size for transgender women is close to that of cisgender females who show a large variation in breast size and shape. The final outcome of breast development with feminising hormonal therapy is dependent on your genetically predetermined response to oestrogen stimulation and the length of time taking oestrogen and is not related to the type of oestrogen taken, your oestrogen levels or the dose of oestrogen taken.

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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 feminising hormonal therapy to pick some features and not others. It is possible to cease hormonal therapy after some permanent changes have occurred.

It is important to understand that breast development can occur at very low levels of oestrogen therapy thus later changes such as skin softening or feminising of the body shape are difficult to achieve without breast development. Breast development can also occur with the most common anti-androgen treatments, spironolactone and cyproterone, even without oestrogen.

There are non-hormonal alternatives for supporting non-binary/ gender diverse people in gender affirmation, including speech therapy, attire and hair removal as well as more targeted androgen-blockers, if breast development is not desired.

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Fertility and Contraception

The long term effects of feminising 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.

Feminising hormonal therapy (oestrogen and anti-androgens) can impair your ability to make sperm. It is thought that this effect is temporary and that sperm production may come back after stopping treatment, even if you have been on treatment for a long time. However, there is very little data to supporting this observation. This means that while feminising hormonal therapy may not make you infertile, stopping treatment does not guaranteed that your ability to produce sperm will return or that you will be able to contribute to a pregnancy, if that is your desire.

It is possible to preserve your fertility by freezing sperm. It is recommended that you consider this before starting treatment. Currently, sperm can only be stored for up to 10 years. Sperm freezing requires referral to a fertility specialist and Dr Holly can arrange this for you if you are interested in exploring this option further. Sperm freezing involves private fees and does not guarantee having biological children. Another option for fertility preservation is embryo freezing which requires an egg to be fertilised. This may be an option for those with a partner with ovaries or if you have an egg donor.

If you choose not to freeze your sperm and you wish to contribute to a pregnancy in the future, you will need to completely stop your feminising hormonal treatment and it may take some months (on average 4-5 months) for your sperm function to return to pre-treatment levels, if it does at all. Stopping treatment can lead to reversal of some of the non-permanent changes of feminising hormonal therapy which may cause distress.

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 feminising hormonal therapy may affect your fertility, it is NOT a contraceptive, it does not prevent pregnancy. Thus if you have sex with someone who could get pregnant it is important you discuss the risk of pregnancy with them and use appropriate contraception such as condoms if you do not wish to contribute to a pregnancy. Your partner may wish to discuss contraceptive options such as the contraceptive pill or implants with their doctor. Permanent contraception or sterilisation procedures include orchidectomy, sexual reassignment surgery and vasectomy.