



Oestrogen Implant Information

What are oestrogen implants?

An oestrogen implant is a small, slow release pellet containing the hormone oestradiol, a type of oestrogen. Oestrogen implants are used for continuing oestrogen therapy where other delivery methods, i.e., patches, gels or oral, are not suitable, not effective, or a less frequent delivery method is preferred. They are NOT suitable for starting oestrogen therapy as they cannot be removed in the event of adverse events or side effects.

Oestrogen pellets are an UNLICENSED product which means they have not been approved for use by the Australian Therapeutic Goods Administration and are therefore not subject to the regulatory conditions of approved pharmaceutical products. However, pharmaceutical grade hormone therapies are manufactured by compounding chemists under strict conditions and are required to undergo rigorous testing of content purity and efficacy. They come in 50 and 100 mg.

Where can I get oestrogen implants?

Because oestrogen pellets are an unlicensed product they must be specially made by a compounding chemist who can also sterilise the implants. There are currently three pharmacies that the clinic is aware of that can dispense these implants and their information is provided separately. Make sure that you allow plenty of time to receive your implant before your appointment. Once your implant arrives, it is your responsibility to store the implant safely as per the pharmacist's instructions until it is time for insertion. As the implant must remain sterile to prevent infection it is very important not to open the inner packaging that contains the implant and maintain sterility. The implant is susceptible to breaking or crumbling if not carried carefully. Please consult with the pharmacist if you have any questions about the packaging or storage. Please note that there are 'insertion by' dates for implants so it is important to consult with Dr Holly re timing of your implant insertion procedure and when to order the implants so they are not out of date.

When are implants given?

Implants are usually given every 6-12 months, depending on your individual response, noting that individual responses are highly variable. A study of 88 x 100 mg in 38 individuals, suggests it takes on average 4 months to reach < 250 pmol/L after the first implant and then 13 months after subsequent implants.¹ Thus it is normal to expect to need a second implant after 4 months, then after 12 months for subsequent implants. The minimum target for oestrogen is 250 pmol/L, thus implant reinsertion is considered from about 400 pmol/L or less to avoid side effects from very high oestrogen. It is important to note that higher oestrogen levels are not associated with any greater breast development as the response to oestrogen is highly individual. Blood tests are recommended every 3-4 months after the first 1-2 implants to determine how long they last for you.

1. Mesure J, Afrin S, Fitzgerald S, Luu J, Gibberd A, Leigh L, et al. Oestradiol implants for gender-affirming hormone therapy: an observational study of serum oestradiol levels and consumer survey. Sex Health. 2023 Dec;20(6):550–7.



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How are implants given?

Implants are inserted subdermally, that is, into the fatty tissue under the skin on the upper buttock/ lower back area. The skin is first numbed with local anaesthetic, then a small 8-10mm cut is made in the skin with a scalpel allowing the implant can be inserted under the skin with a sterile inserting instrument called a trocar. This part of the procedure can be associated with a firm pushing or pressure sensation. Once the implant is under the skin, the wound is closed with sutures which can be removed 10-14 days after the procedure. The procedure results in a small scar. For several reasons, including safety and access to plastic trocars only, Dr Holly will only insert implants in the upper buttocks/lower back area over the pelvic bone and not at any other site.

What are the risks of the insertion procedure?

There will be a small amount of PAIN from the anaesthetic and the insertion site may be a bit sore or uncomfortable for a short time after the procedure. BLEEDING and BRUISING may occur during and after the procedure. Because the skin is being cut there is a small risk of INFECTION which can require antibiotics. There will be a small SCAR from the cut. Some people scar more than others and you may not like the appearance of the scar. It is normal for the skin close to the scar to feel a bit numb. Rarely implants can be rejected and work their way back out of the skin. It is not possible to remove an implant once it has been inserted. Extremely rare, life-threatening complications such as allergic reactions or heart attack can occur with any medical procedure, including implant insertion.

What are the benefits and risks of oestrogen implants?

The benefits of implants include the convenience of not having to use a daily or twice weekly medication and reaching a effective dose for those who don't responds as well to non-implant oestrogen. The downsides of implants are that they require a procedure to insert and there are significant costs involved in purchasing the implants and the procedure itself.

There is limited research on the use of oestrogen implants in transgender women for feminising hormonal therapy. From clinical experience, the response to implants in terms of feminising effects, symptom management / alleviation, oestrogen levels in the blood and duration of the implant varies significantly between individuals and sometimes between implants in the one individual.

Implants may result in very high oestrogen level which may cause side effects including bloating, headaches, nausea, mood changes, and possibly elevated clot risk. Another risk of high oestrogen levels is *tachyphylaxis* where your body becomes less and less responsive to the oestrogen. Treatment requires cessation of oestrogen until you body recovers its responsiveness to oestrogen. This has been observed in postmenopausal cis-women but the data is lacking in transwomen. For this reason, Dr Holly prefers to consider re-implantation around oestrogen levels around 400 pmol/L or less.

Oral oestrogen has a risk of clots. Transdermal (gels and patches) oestrogen does not appear to increase the risk of clotting. The risk of clots with implants is unknown but it would be expected to be lower than with oral oestrogen. The other side effects of oestrogen implants are the same as



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other forms of oestrogen you have already been taking, including headaches, nausea, mood changes and fatigue. If not completed previously, you will be asked to complete an informed consent form for feminising hormonal therapy to ensure you are fully aware of the risks and side effects of treatment. If you wish to discuss again the risks and side effects of feminising hormonal therapy please ask Dr Holly.

Stopping oestrogen implants

Oestrogen implants should be considered as non-reversible. The implant cannot be removed once inserted. If you are planning to cease oestrogen or contribute to a pregnancy within the next twelve months, this treatment is unsuitable for you. Oestrogen implants give a therapeutic effect for around 6-12 months. However, the residual implant may continue to release small amounts of oestrogen for up to 18-24 months.

After your implant insertion

You will be emailed after care information. Expect to have nil or mild pain that you might take paracetamol. There might be a small amount of bleeding which can be managed with firm pressure. Infection is unlikely but if you are concerned please seek urgent medical attention. Keeping the wound covered with normal bandaids or vaseline is recommended. You will need to have the sutures removed 10-14 days after the procedure which can be done at Rainbow Care or you will be given instructions to do this at home as it is quite simple.

You will be given a care plan for ongoing care as well as blood forms for ongoing monitoring. Dr Holly will advise you when to have your blood tests. Blood test monitoring of implants does not require a consultation and Dr Holly will email you with your results and the recommended plan. Your next consultation will be to arrange further implants or if you need scripts or have other issues you wish to discuss.

Costs

Implants are not a commercial product and are made to order and sterilised by specialist pharmacies who set the fees for them. Rainbow Care Clinic charges a set fee for the insertion procedure which is separate from any consultation fees. This fee covers cost of the procedure and all equipment required for the insertion (syringes, needles, local anaesthetic, antiseptic, sterile gloves, trocar, suture kit, suture and dressings). A small Medicare rebate applies to the insertion procedure. Consultation fees apply to any appointments prior to the insertion and to the appointment on the day of your insertion. The separate consultation fee is for the appointment to discuss your ongoing gender-affirming care plan, arrange any scripts or blood tests, and cover any other issues you may have. Medicare rebates apply to consultation fees if you are eligible.