



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 or 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 chemist 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. 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.

When are implants given?

Implants are usually given every 6-12 months, depending on your individual response. It is common to require a second implant 4-8 months after the first and then less frequently for subsequent implants. The recommended target oestrogen range as per the 2022 AusPATH informed consent guidelines is 250-1000 pmol/L, with the understanding that *higher* does not equal *better* and that higher oestrogen is NOT associated with any greater breast development compared with other delivery methods. Regular blood tests are required initially but can be reduced to less frequently once your levels have stabilised. Oestrogen levels below 400 pmol/L are recommended before your next implant is inserted to reduce the risk of *tachyphylaxis* (see below). Your implant insertion may be postponed if the oestrogen level is too high.

How are implants given?

Implants are inserted subdermally, that is, into the fatty tissue under the skin, preferably over the upper buttocks or tummy. The skin is first numbed with local anaesthetic, then a small 5-10mm 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 trochar. This part of the procedure can be associated with a pushing or pressure sensation. The trochar cost is included in the procedure fees and billed at cost price which is approximately \$25. The cut is then closed with a small suture which may require removal in 10-14 days. There will be a small scar for each procedure.



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What are the risks of the insertion procedure?

As with all procedures there are risks involved. 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. Because the skin is being cut there is a risk of INFECTION which can require antibiotics. BLEEDING and BRUISING may occur during and after the procedure. 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 using oestrogen implants for continuing oestrogen therapy include the convenience of not having to use patches, gels or tablets regularly. Some people may be able to achieve an effective oestrogen dose where they couldn't with the other delivery methods. The downsides of implants is that they require a procedure to insert and there are significant costs involved in purchasing the implants and the procedure itself. In the long run, implants can become more cost effective for some people, especially if you do not have a health care card and only need annual insertions.

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.

Rarely, after repeated implants oestrogen can accumulate in the body leading to high blood oestrogen levels. The associated side effects include bloating, headaches, nausea and potentially elevated clot risk. Another risk of high oestrogen levels is *tachyphylaxis* where your body becomes less and less responsive to the oestrogen despite there being plenty in your blood stream (as a result of down regulation of your oestrogen receptors). The only fix for this condition is stopping all oestrogen until your body recovers its normal responsiveness to oestrogen. For this reason you will need a blood test prior to each implant and implants will not be inserted until your oestrogen is at an acceptable level (< 400pmol/L). If you are having symptoms of low oestrogen but your oestrogen levels are normal or high, you may have tachyphylaxis. If you are concerned about this, please talk to your doctor.

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 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.



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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 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

After insertion most people have no pain but if you have some discomfort you can take paracetamol as per the packet for pain relief. Bleeding after the implant is unlikely but should be treated by applying constant, firm pressure to the site for 10-15 mins. Infection is an uncommon risk. It is normal to have some slight redness at the side of insertion. Signs of wound infection include pain 2-3 days after insertion with redness & tenderness to light touch that is spreading outward from the scar site. If you have any concerns, seek medical attention as soon as possible as you may require antibiotics. Wounds heal best when they are kept covered with a dry dressing that becomes somewhat moist with the body's humidity. This also prevents scabbing and crusting which can slow healing. Aim to keep the wound covered for at least 48 hrs. For the first few days shower with a dressing on (change if water logged) then you can take the dressing off before showering and wash the wound with soap and water, pat dry and put a clean dressing on until healed. If you have had sutures, these typically require removal in 10-14 days.

Costs

The cost of the implants themselves are due to the fact they are individually made to order by the pharmacy and the pharmacy dictates the cost of the implants. The insertion procedure fees includes the cost of the trochar, dressings, sutures and doctor fees for the insertion. There is a small rebate from Medicare available for this procedure. Separate consultation fees apply for implant pre-assessment appointments.