

IVF
Information
Brochure
(Long Synarel)



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IVF Long Synarel

These information sheets are designed as a guide for your forthcoming IVF treatment cycle. They can be used to help you understand what will occur during the IVF cycle and also as a reference throughout the cycle if you are unsure of the next step in your treatment.

In your IVF treatment cycle you will be given two groups of drugs:

The first group are called **Gonadotrophin Releasing Hormone (GnRH)** drugs. The two drugs that may be used are **Synarel** or **Lucrin**. These are given either in the form of a nasal spray or a subcutaneous injection which is taken twice a day, or once daily respectively.

During normal cycles, the release of an egg depends on a hormone made by the pituitary gland. This is called *Luteinising Hormone*.

Lucrin & Synarel block the release of this hormone so that premature ovulation and subsequent loss of the egg cannot occur. Treatment with these drugs can cause some side-effects which include hot flushes, headaches and irregular vaginal bleeding. These are usually not a problem, are transient in nature and are no cause for concern. Once Synarel or Lucrin is stopped, the pituitary gland quickly recovers its normal function.

The second drug is called **Puregon or Gonal-F** (Pergonal, HMG, Metrodin 75, Metrodin HP, or Humagon 75 are the older versions) (these are just different names for the same drug-FSH). These drugs are used to stimulate the ovaries to produce follicles and, hopefully, eggs. They are dispensed in the form of injections, given subcutaneously by specially developed pens.

You will be told the dose of FSH to have when you are ready to start this part of your treatment. It does not normally have any side-effects. There are two basic regimens: "*long downregulation*" which requires you to start your Synarel or Lucrin on Day 20 of your cycle preceding your IVF attempt and "*short regimen*", which involves starting on Day 2 of your menstrual cycle. There are separate booklets for each.

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LONG DOWN REGULATION PROTOCOL

YOUR CYCLE : What Happens

DAY 20 of your menstrual cycle prior to your IVF or GIFT attempt

Please ring my secretary prior to Day 20 to let us know that you are starting (if your cycle is longer than 30 days, I will often start you later than D20 simply so you do not need more than one bottle of Synarel).

Remember Day 1 is the first day you wake with your period. If your bleeding starts later in the day, the following day is Day 1.

Early in your treatment you should:

1. Register for treatment on the first floor of Watkins Medical Centre, they will invoice you for the appropriate cycle costs
2. Pay your booking and registration fee
3. Pay your Lucrin or Synarel fee and obtain a bottle of Synarel or Lucrin from the QFG office.
4. Pay the fee for micro-injection, hatching, embryo glue etc if appropriate
5. Please also make sure that we have your home and/or work telephone number where you can be contacted during the day.

The actual cost at the time of treatment can be confirmed by telephoning the QFG office.

You will be asked to sign consent forms for your treatment at this time. We will also provide a drug request for so the cost of drugs can be met by medicare.

Please ring my office on 07 30102121 to make an appointment to be seen in the first 6 days of your cycle when you period arrives.

By Day 6 of your treatment cycle you and your partner will be taught how to administer the injections. Alternatively, arrangements can be made on a daily basis to have this performed at Watkins Medical Centre. Please note that because IVF is covered by a global fee which includes all ultrasounds, blood tests and administered drugs, you cannot go to your GP and have these administered under Medicare.

You will be informed of the dose you will need and appropriate amounts of drugs given to allow you to continue administering these yourself.

Synarel is usually 2 sniffs a day, one into one nostril in the morning and the other sniff into the other nostril at night.

Lucrin is usually 0.1mls per day

0.1mls Lucrin = marking of 10 on the syringes given

0.2mls Lucrin = marking of 20 on the syringes given

FSH can occur in many doses dictated by the pen in use.

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Occasionally, you will have a blood test and a scan early in your treatment to check whether your body's control of the ovaries has been suppressed if your past history were to suggest that this might be the case. This scan is usually a vaginal (internal, empty bladder) scan.

You will start your Synarel or Lucrin on Day 20 of your previous cycle and usually start your FSH on Day 6 of your treatment cycle.

Please again make sure we have a contact number for you at all times, particularly on the weekends. During the week days *you* should ring my rooms (between 12 and 2pm) any weekday you have a blood test to find out the result if I request that you do so. Instructions will then be given as to when you should return for further review, whether you should change your dose, or possibly when you are ready for your egg collection. If it is the weekend, I will contact you or, alternatively, if that does not happen, please ring me at home at 7pm sharp, as I am occasionally away on the weekend. Please follow any message on the answering machine to obtain your result.

You must continue Synarel or Lucrin during the FSH course

You will have another blood test (LH, Progesterone and Oestradiol) on Day 6 of your FSH treatment (Day 11 of your cycle). This blood test will again be performed on the first floor at QFG. On the basis of this blood test, we may change the dose of FSH. You will often have a scan on this day as well and these will be pre-arranged when you first get your drugs.

You will need to continue with the daily injections of FSH on Days 7,8,9 etc (Days 12,13,14 etc) of your cycle.

Most ladies will have a further vaginal scan before the decision is made as to when the egg are to be collected.

Further blood tests and scans may be required depending on your individual response.

Eventually, you will be ready for your egg collection (approximately 10 -16 days after starting your FSH). This usually means 3 or more follicles greater than 17mm in diameter and Oestrogen levels consistent with this picture.

If it becomes obvious that not enough follicles are developing, or that the blood Oestrogen levels are not high enough and the chances of pregnancy in that particular cycle are very poor, then it may be necessary to stop all treatment and start again after the next period on a higher dose of FSH. This decision is very important as not only is it very disappointing for you, but it is also important to remember there is no point in persisting in that cycle unless you have a good prospect of pregnancy.

Occasionally, the treatment also has to be stopped because the ovaries are becoming too stimulated and to go on would be a risk to your health. This is called OVARIAN HYPERSTIMULATION. You should report any abnormal pain or sickness as these may be signs that excessive stimulation is occurring. These complications can occur but usually only occur in less than 5% of cycles.

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When you have enough follicles and your blood Oestrogen level is adequate, we will say that you are ready for your egg collection and arrange for you to have a special evening injection to induce ovulation (the timing is critical). This is necessary for the final maturation process of the egg. The timing of your egg collection will also be arranged at this time.

'Evening HCG Injection'

A time is arranged for a late night injection of HCG (a hormone which finally matures your eggs). This is done by the the person who usually gives you your other injections at home. The injection is normally given 37 hours before your planned egg collection and must be given at the time that I tell you. It should be given subcutaneously as you have been doing for the FSH. Ovidrel 250mcg/0.5ml is usually given to initiate ovulation. This comes in a prepackaged syringe. Alternatively, 2 Ampoules of HCG powder (Pregnyl) 5000U can be given and should be mixed with 1 ampoule of water ie, 10,000U in total .

After this injection ***no more Synarel or Lucrin, no blood tests or further scans are required.***

The following day you have a day off drugs in preparation for your egg collection the next day!!! QFG Day theatres will usually ring you the day before your planned surgery to confirm the arrangements with regard to where you need to go, what you need to bring and the appropriate time for you to arrive (make sure you have given them an appropriate contact number). Please remember to obtain, fill out and take with you your pre-admission forms for the day theatres.

EGG COLLECTION

Both partners should attend the QFG Day Theatres 1.5 hours before your egg collection if you are having IVF and 2 hours before your procedure if you are having GIFT.

It is important that you have nothing to eat or drink (including water) for 6 hours prior to your procedure.

The anaesthetist checks that you are fit for the planned operation.

A general anaesthetic will usually be administered for your procedure. You will normally be able to go home later the same day. You must be picked up from the hospital and someone should remain with you for the evening.

I would also strongly advise that if you live more than 100kms from Brisbane, you make arrangements to stay in Brisbane overnight.

If you are having IVF, your partner's sperm will be collected within a few hours of your egg collection and processed. Your eggs will be inseminated approximately 2-4 hours after egg collection. With GIFT, the sperm sample will need to be collected prior to egg collection. Ideally, the sample should be collected after 2-5 days (and probably no longer than a week) of abstinence, by masturbation performed either at home or at the QFG Day Theatres. If you believe there may be a problem with collection, you should let me know in advance.

Fertilisation will be apparent the following morning and you will be asked to ring my rooms to see how you fared in terms of fertilisation and to arrange a time for your embryo transfer to be performed. Embryo transfer will then be performed 2-5 days later if fertilisation has occurred.

Although all eggs are placed with sperm, only 60-70% of eggs will usually fertilise (to produce an embryo). With GIFT, eggs and sperm are put back immediately following the egg collection via laparoscopy (under the one anaesthetic) and the remaining eggs are then fertilised in the laboratory as in the case of IVF.

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EMBRYO TRANSFER

You should attend the QFG Day Theatres at the stated time (going straight to the 4th floor on this occasion). This will be 2-5 days after the egg collection.

You will be informed of the number of eggs which have been fertilised at this time and after a discussion, a decision will be made as to the number of embryos to be put back. This depends on the number available, your age and previous fertility, the quality of the embryos and what has happened in previous cycles. (the choice is between 1 and 2 only)

Transferring more than one embryo increases the chance of pregnancy occurring but this also increases the chances of multiple pregnancy. Multiple pregnancy, especially of more than two foetuses, has a higher rate of miscarriage, premature birth and operative delivery. There are also practical, emotional and financial implications to be kept in mind.

For these reasons in the vast majority of patients I will transfer **1 or 2 embryos**, choosing the best from those that are available. If excess embryos are available for freezing, this will be discussed with you at the time. Only the best embryos are suitable for freezing as poorer quality embryos do not survive the freeze-thaw cycle well. There is also an extra fee for this service if embryos are stored for more than 6 months. Therefore, freezing is usually the exception rather than the rule. The embryo transfer is performed in the QFG Day Theatres. It is essentially a similar procedure to having a smear test performed. You will not need an anaesthetic for this and therefore do not need to be starved. You will be asked to rest for 30 minutes after the procedure but can then go home and carry on life as normal. You should not, however, have intercourse for 10 days following your egg collection.

You will usually be given Crinone (a Progesterone gel) to use vaginally daily, or Progesterone pessaries. Alternatively two or three booster injections of HCG may be given every few days following your embryo transfer. You may also be asked to take Progynova (oestragen) and Provera (progesterone) tablets depending on your individual circumstance. Aspirin in 100mg tablets (Baby aspirin – Cardiprim) is sometimes also prescribed.

After this, all we can do now is wait - it is probably the most difficult time in the IVF cycle.

You will be asked to give a sample of blood for a pregnancy test 14 days after your embryo transfer or GIFT procedure if your period has not come. Forms are usually given to you when I give you the paper work for the day theatres. Results are available 60 minutes after the blood test is performed.

A positive result

If the result is positive, I will ask you to have another blood test in 48 hours and if it confirms a good rise in your pregnancy levels I will get you come for a vaginal scan in two and a half weeks time. Please make an appointment with my secretary when you ring for your second blood result. You will need to stay on all your medication until approximately 10 weeks of pregnancy. This scan is to establish if the pregnancy is in the correct position within the uterus, whether it is viable and how many sacs there are.

A negative result

A negative result on Day 14 after transfer means that the cycle has not worked this time and you should make an appointment to see me to review your cycle and future plans. If you have had no bleeding by Day 21, then you should repeat your pregnancy test on that day.

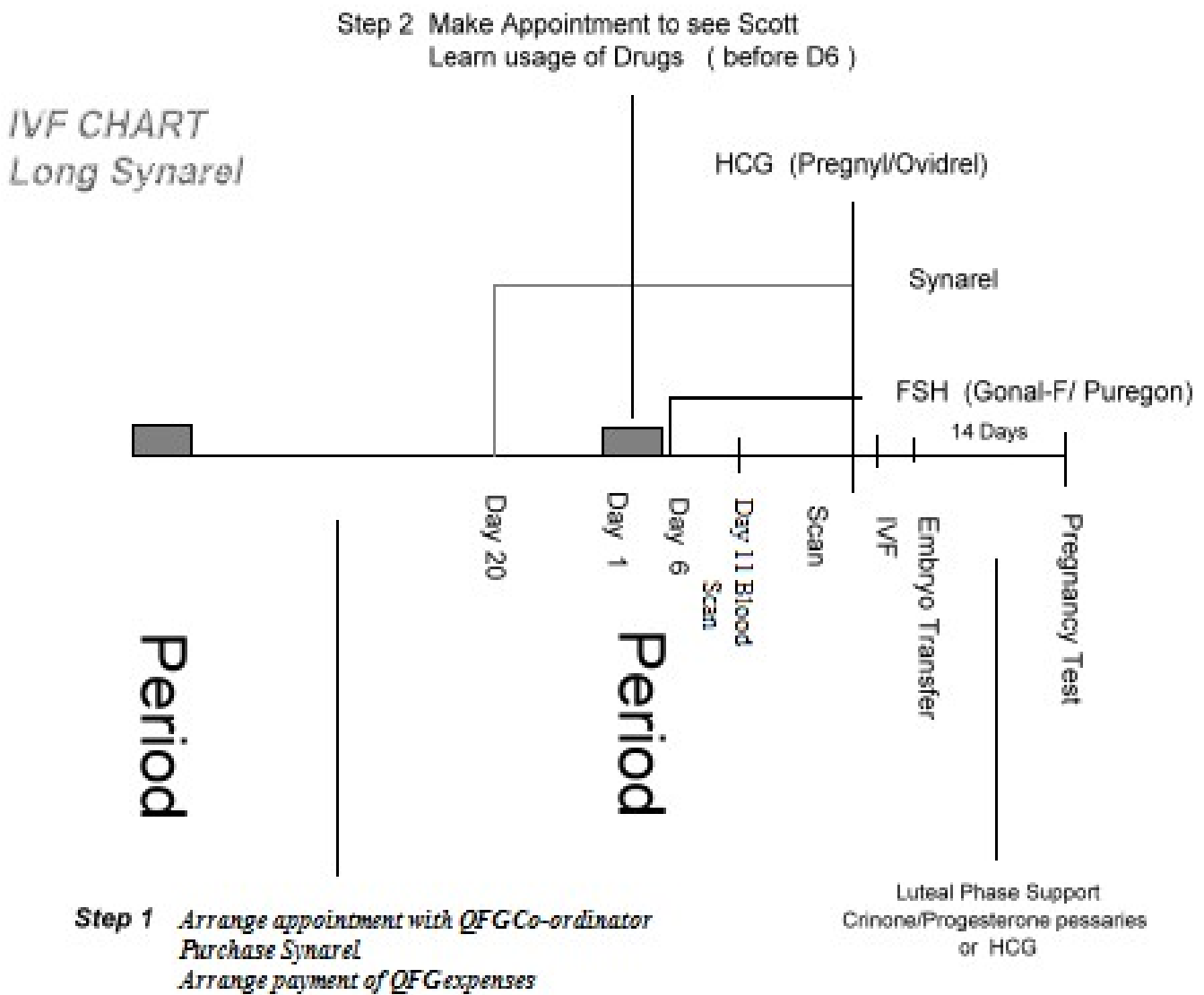
This leaflet is brief but hopefully may help you during your cycle to understand what will be required of you.

GOOD LUCK!

Scott Salisbury

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IVF FLOW CHART

Day 20 (cycle prior)

Start Synarel one sniff twice a day

Day 2

Make Appointment with rooms prior to Day 6

visit **QFG office** on the **1st floor** :

pay fees and obtain drugs before Day 6



Commence fsh Day 6 of treatment cycle
(continue Synarel or Lucrin)



Day 6 FSH (Day 11 of your cycle) **Blood test +/- Scan**



Day 8/9 FSH (Day 13/14 of your cycle) **Scan**



adequate no. of follicles and appropriate amount of Oestrogen
measured on your blood test
(between 10-20 days)



evening HCG injection

37 hours before egg collection

Crinone / Pregnyl

cease Lucrin & FSH only at this time



Egg Collection QFG day OT **Sperm Collection**



Ring for results of fertilisation

24 hours later



Embryo transfer

2-5 days after egg collection



Pregnancy Test

14 days following egg collection



negative
further review
? ivf again



positive
ultrasound 2.5
weeks following



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Glossary

Intracytoplasmic Sperm Injection (ICSI)

Intracytoplasmic sperm injection (ICSI) is a laboratory procedure developed to help infertile couples undergoing in vitro fertilization (IVF) due to male factor infertility. ICSI, a form of micromanipulation, involves the injection of a single sperm directly into the cytoplasm of a mature egg (oocyte) using a glass needle (pipette). This process increases the likelihood of fertilization when there are abnormalities in the number, quality, or function of the sperm. ICSI is generally unsuccessful when used to treat fertilization failures that are primarily due to poor egg quality.

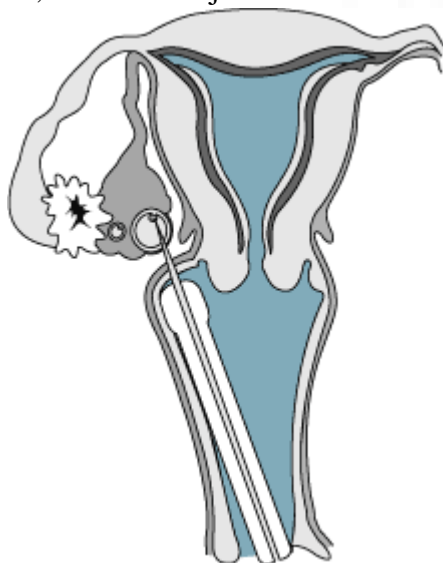
A variety of abnormalities can cause male infertility. Sperm can be completely absent from the ejaculate (azoospermia) or present in low concentrations (oligospermia). Sperm may have poor motility (asthenospermia) or have an increased percentage of abnormal shapes (teratospermia). There may also be functional abnormalities which prevent the sperm from binding to and/or fertilizing the egg.

Indications for Intracytoplasmic Sperm Injection

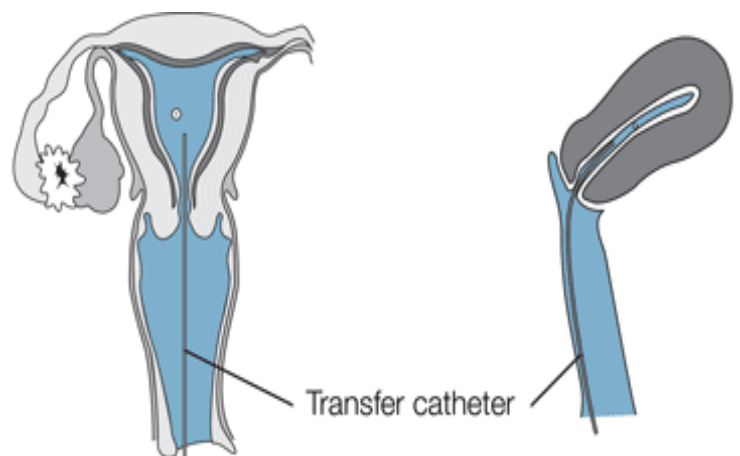
- Very low numbers of motile sperm.
- Severe teratospermia.
- Problems with sperm binding to and penetrating the egg.
- Antisperm antibodies thought to be the cause of infertility.
- Prior or repeated fertilization failure with standard IVF methods.
- Frozen sperm limited in number and quality.
- Obstruction of the male reproductive tract not amenable to repair. Sperm may then be obtained from the epididymis by a procedure called microsurgical epididymal sperm aspiration (MESA), or from the testes by testicular sperm aspiration (TESA).

Fertilization occurs in 50% to 80% of injected eggs. The ICSI process may damage a small percentage of eggs. The fertilized egg may fail to divide, or the embryo may arrest at an early stage of development. Pregnancy rates are comparable to rates seen with traditional IVF. Younger patients may achieve even more favourable results. Factors such as poor egg quality and advanced maternal age may result in lower rates of success.

ICSI does not increase the incidence of multiple gestation as compared to standard IVF. Because ICSI is a relatively new technique, first performed in 1992, long-term data concerning future health and fertility of children conceived with ICSI is not as comprehensive as standard IVF but what data is available is reassuring. This is an area of ongoing investigation. Because some causes of male infertility are familial and are related to genetic problems, male offspring might have reproductive problems as adults. Despite these concerns, ICSI is a major advance in the treatment of severe infertility.



Egg Collection



Embryo Transfer

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Options for numbers of embryos transferred

There is uncertainty in deciding the number of embryos to transfer in an IVF cycle. So far, information on single embryo transfer is very limited. The chance of a twin pregnancy conceived naturally is about 1:80 births, so the risk of conceiving a multiple pregnancy in IVF is significantly increased (about 20% if two embryos are transferred).

This is why most fertility clinics have reduced the absolute number of embryos transferred to two. The question is whether we should limit the embryo transfer to one?

Risks associated with multiple pregnancy

IVF specialists agree that the risk of multiple pregnancy needs to be reduced in IVF practice. Potential problems for babies include:

- low birth weight
- premature birth
- higher risk of cerebral palsy
- serious complications after birth, including infant mortality
- increased speech and reading problems among "toddler" twins.

Potential problems for the parents include:

- high blood pressure during pregnancy
- post partum haemorrhage
- fatigue and sleep deprivation
- financial pressure on the family.

The decision about how many embryos to transfer will be based on age, number of attempts, previous fertility, reasons for infertility and embryo quality.

It is important that if you wish to reduce the risk of multiple pregnancy that you inform me that you only wish one embryo to be returned.

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Synarel Nasal Spray

HOW TO USE SYNAREL

TO PREPARE THE PUMP FOR USE (PRIMING)

Caution: Avoid breathing in the spray during priming.

Before you use a bottle of Synarel spray for the first time, you have to prime the spray pump. Follow these steps:

1. Remove the safety clip and the clear plastic dust cover from the spray bottle.
2. Put two fingers on the 'shoulders' of the spray bottle and put your thumb on the bottom of the bottle.
3. Hold the bottle in an upright position away from you. Apply pressure **EVENLY** to the 'shoulders' and push down **QUICKLY AND FIRMLY** until a fine spray occurs. Usually the spray will appear after about 5-10 pumps.
4. The pump is now primed. Priming only needs to be done once, when you start using a bottle of Synarel nasal spray. You will waste medication if you prime the pump before each use and will not have enough medication for the treatment period. Each container is designed to deliver 60 doses.

TO CLEAN

5. Clean the spray tip every 3-4 days.
6. Hold the bottle in a horizontal position (on its side). Rinse the spray tip with warm water while wiping the tip with your finger **OR** a soft cloth for 15 seconds.
7. Wipe the spray tip with a soft cloth or tissue to dry, replace the safety clip and clear plastic dust cover on the spray bottle.
8. **DO NOT ATTEMPT TO CLEAN THE SPRAY TIP USING A POINTED OBJECT.**
9. **DO NOT ATTEMPT TO DISASSEMBLE THE PUMP.**

USING SYNAREL NASAL SPRAY

10. Gently blow your nose to clear both nostrils before you use Synarel nasal spray.
11. Remove safety clip and clear dust cover from the spray bottle.
12. Bend your head forward a little and put the spray tip into one nostril. (The tip should **NOT** reach too far into your nose). Aim the tip toward the **BACK** and **OUTER SIDE** of your nose.
13. Close the other nostril with your finger.
14. Applying pressure **EVENLY** to the 'shoulders', **QUICKLY AND FIRMLY** pump the sprayer **ONCE**, at the same time as you sniff in gently.
15. Remove the sprayer from your nose and tilt your head backwards for a few seconds. This lets the spray spread over the back of your nose.
16. Wipe the tip of the pump with a soft cloth or tissue after use. Replace the safety clip and the clear plastic dust cover on the spray bottle.

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Synarel

Commonly asked questions and answers

What happens if I sneeze or have a runny nose?

For the first 4-5 minutes after spraying Synarel do not blow your nose and if you sneeze in this time, you may re-apply the spray.

Can I use a decongestant if my nose is blocked?

Yes, but only 30 minutes after using Synarel.

How often should I prime the Synarel bottle?

Only once, before you use the bottle for the first time. After you get a fine mist spray, the bottle will not need priming again. Priming more often will result the spray working less the 60 sprays (doses).

How many doses or days will a bottle of Synarel last?

The doctor will discuss the dose with you and this will determine how many days a bottle of Synarel will last. There are a maximum of 60 sprays in one bottle.

One spray morning and night = 30 days (60 sprays)

There is also enough to prime the bottle once, and to occasionally re-administer the product if sneezing occurs within 4-5 minutes.

How does sniffing Synarel get the drug into the body?

Synarel is rapidly absorbed into the blood stream through the thin skin lining the nose (nasal mucosa).

What happens if I am late or forget to take my Synarel spray?

Take your dose as soon as you remember then go back to taking it as you would normally, but let your doctor know.

What are the commonly experienced side effects of Synarel?

Common side effects can include hot flushes, changes in sex drive, vaginal dryness and headaches. Ask your doctor or clinical staff if you have any questions.

Where should I keep the Synarel spray?

Synarel should be kept in an upright position in a cool dry place and away from light.

Can I re-use the Synarel bottle for subsequent cycles?

Yes, if you keep a record of the number of sprays used, then the bottle can be kept and re-used up to the 'use by' date on the packaging. A maximum of 60 doses can be utilised from each bottle.

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Synarel Dosage Calender

No	Date	Day	am	pm
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