



**Information  
on IVF**

**Vitanova**

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## Information on IVF

Welcome to Vitanova and thank you for your enquiry.

This information is intended to provide you with answers to some of the questions and thoughts you probably have right now. We want to give every individual the best possible treatment and care during the process, so please do not hesitate to call or e-mail if you need further information or have any questions. We help single parents, and both heterosexual and lesbian couples. You can start fertility treatment once you have had the first consultation and a plan has been made for your course of treatment. You can book for an appointment on +45 33 33 71 01, or by e-mail: [info@vitanova.dk](mailto:info@vitanova.dk).

We cannot offer treatment for women aged 46 years or over (cf. legislation on artificial fertilization), but there is no age limit for men.

At Vitanova we can help you with IVF in natural or hormone stimulated cycle.

We recommend IVF if:

- The woman has blocked fallopian tubes
- The man has reduced sperm quality
- The woman has endometriosis or PCO
- The woman or man has been sterilised
- There are unexplained reasons for infertility
- Failure to become pregnant by artificial insemination

We can offer one of the following treatments, depending on the reason for infertility:

- IVF, in-vitro fertilisation, where fertilisation occurs outside of the body, also called test tube fertilisation
- ICSI, intracytoplasmic sperm injection, where sperm is injected directly into the egg, and is used in cases of reduced sperm quality
- TESA testicular sperm aspiration, where sperm is removed from the testicles

Before you can receive treatment, you need to talk to us, so we can decide on the right treatment for you. In this information material, you can read about the examinations needed before you can receive treatment. If you already know the reason for your infertility or you have received treatment elsewhere, it would be a great help if you can provide us with a copy of the medical record and any information on egg development, stimulation and semen analysis. We can do a semen analysis if one has not been made. We would like to receive this information and test results, before the initial consultation, so we know as much as possible about your current situation beforehand.

If you are a couple, you must both be present at the first consultation. If you are going to use donor sperm, we can agree during the consultation what your wishes are regarding the donor, such as eye colour, hair colour, and height.

### IVF, initial consultation and examination

Before you start, you must come for a consultation where you will be fully informed about the process. We also want to know your wishes and what you expect of us. We then plan your course of treatment, so that you know exactly how it will go. The consultation lasts about an hour and, except in unusual circumstances, must take place at the clinic.

If you have already undergone the necessary checks before you come to the consultation and everything is all right, treatment can start in the next menstrual cycle.

### Examinations women can have done before starting treatment

We need the results of the following examinations before you can start with IVF, but you can certainly have the initial consultation before taking the tests. At the initial consultation, we will assess whether there is a need for additional examinations. If you have undergone treatment or testing somewhere else, we are not

likely to repeat the examinations. We start with an ultrasound of the uterus and ovaries, to see if everything seems to be normal.

### Hormone examination

Depending upon what your menstrual cycle is like, we can make a hormone assessment. A blood sample must be taken on the 2nd, 3rd, or 4th day of your cycle. The 1st cycle day is the first day of menstruation, the day when bleeding really begins. Do not count the days where there is only a brownish discharge. You are examined for FSH, LH and Oestradiol, which are the hormones that govern a woman's cycle and the formation of the follicle in which the egg lies and matures. The blood samples can be taken by us or by your own GP. The hormone tests will show whether you are nearing menopause, and results of the tests are very important for the treatment and the outcome. If you get the blood tests done by your GP, you must send or fax the results to us.

### Rubella, Parvovirus and Toxoplasmosis

#### Rubella

If you are not sure whether you have had the disease or been vaccinated against it, you can contact your GP and take a blood test to find out. If you are not immune to the disease, we recommend that you have a vaccination. After three months, you can start the treatment.

#### Parvovirus

It is not possible to vaccinate against parvovirus infection. If you had the disease as a child, you cannot get it again. If in doubt, your GP can take a blood test to check your immune status. If you are not immune, then during your pregnancy you must take care not to come in close contact with children who have the disease.

#### Toxoplasmosis

Toxoplasmosis is caused by a parasite whose main hosts are cats, and it can be transmitted to humans via cat faeces. So it is advisable for pregnant women not to clean the litter tray because the disease can be transmitted to the foetus. This does not mean that you have to get rid of the cat – just that you should think a little more carefully about your contact with it. A blood test can show whether you are immune to toxoplasmosis. Immunity also means that you cannot transmit the disease to the foetus.

### Infectious diseases; women and men

It is a legal requirement that women and men receiving fertility treatment must be tested for AIDS (HIV1 and HIV2) and hepatitis: Hepatitis B (HBsAg) and anti-HBc (antibody) and Hepatitis C (anti-HCV). If you have the blood tests done by your GP, you must send or fax the results to us.

Under the Danish Tissue Law, by which we are certified, name(s), social security number(s), test date(s), and what tests were taken, must all be clearly shown on the results. Blood tests must not be more than two years old. If you have not had the blood tests, or they are too old, we can take them when you come for the consultation. The results of these tests must be negative before we can begin treatment. It takes approximately one week to get the results from the laboratory.

### Sexually Transmitted Diseases

If you are under 26, both of you must be tested for Chlamydia before treatment starts. Chlamydia can be symptom-free, so you can have the disease without knowing it. Chlamydia can lead to the fallopian tubes sticking together so the woman cannot conceive normally. Both of you must also be tested for syphilis.

### Summary of the tests that **must** be taken prior to treatment

Women	Men
<b>To be taken before starting treatment</b>	<b>To be taken before starting treatment</b>
HIV (HIV1 and HIV2)	HIV (HIV1 and HIV2)
Hepatitis (HbsAg, anti-HBc and anti-HCV)	Hepatitis (HbsAg, anti-HBc and anti-HCV)
Chlamydia, if you are under 26 years old	Chlamydia
Hormone tests, FSH, LH and oestradiol	Semen analysis
SMEAR (cell sample from the cervix)	

## IVF Treatment

During IVF (test tube fertilisation), the ovaries are stimulated to mature more eggs, and then we remove the eggs from the ovary. This is done through the vagina under ultrasound scanning. Fertilisation with the man's sperm or donor sperm takes place in our laboratory. When one or more eggs have been fertilised and we can see that they have begun to divide, one or more are put back into the womb.

To ensure there are enough eggs for collection, you are stimulated with hormones during the cycle you want to start treatment in. So, you will need to be scanned several times during the process. Your own gynaecologist can do the scan, but then we must receive the scan results by fax or e-mail immediately after you have been scanned, so that we can advise you on how to proceed until egg pick-up.

## Mild Hormone Stimulation

At Vitanova we stimulate with as little a dose of hormones as possible. Our aim with hormone stimulation is for you to produce 6 to 8 eggs. This is the optimal number for achieving pregnancy. Some women produce fewer eggs, others more.

In mild stimulated treatment, the hormone stimulation follows your natural cycle. You could say that we enhance the effect of your own hormones to produce more eggs. It gives fewer side effects than the long protocol treatment, in which the woman's own hormones are taken out of the equation, also known as down-regulation. Precisely because we follow your natural cycle, you will need to be scanned 2 – 3 times during the cycle. We need to follow the growth of the follicles in order to regulate the dose of hormones.

## Overstimulation

If you produce more eggs than 6 - 8, there is a risk of overstimulation after embryo transfer. Symptoms of overstimulation are putting on more than a kilo per day, your stomach becomes large and tight, and you may have problems with breathing and nausea. The symptoms are a result of overstimulation causing fluid to collect in the abdominal cavity. Overstimulation is worst around one week after egg pick-up and usually stops within a week or two. Overstimulation is not so common nowadays, because it has become easier to adjust the hormone dosage to the individual. Hormone stimulation tends to make the abdomen sore and give a bloated stomach. To ease these symptoms, it is important that you drink 3–4 litres of fluid per day after egg pick-up. If you get symptoms of overstimulation contact us or your GP.

## Course of treatment

The actual hormone treatment is administered by nasal spray and injection of the hormone in the abdominal wall. You will get instructions from us in how take the injections. You can also find good videos on YouTube with instruction in how to use the medication. For some, the thought of having to inject themselves is quite unpleasant, but most get used to it quickly. The needle is very thin, and even with slight pressure, you can pierce the abdominal wall without much pain and there is no risk of doing anything wrong.

## Egg pick-up, the woman

Once an adequate number of follicles have formed, you will be given an egg-releasing injection and collection is usually done after 36 hours. When you come for egg pick-up, a needle will be inserted into your arm, so the nurse can give you a painkiller. You will also have a local anaesthetic in the vagina, so that the process is as painless as possible. Some feel almost nothing, while others may feel discomfort or pain. The nurse can give you additional pain relief underway. You become drowsy from the pain relief, but you are awake all the time. The doctor scans the ovaries and inserts a thin needle through the vagina into the ovaries. The eggs are sucked out. The actual collection process takes 15 to 20 minutes. Then you can go and lie down in our recovery room until the anaesthetic has worn off. It takes approximately 30 minutes. You may feel tired and slightly groggy for the rest of the day. Most feel a little throbbing, or the abdomen becomes bloated, or they experience slight pain in the lumbar region; these are all normal.

We recommend that you also relax as much as possible for the rest of the day, and you must not drive after the procedure, because you will still be under the influence of the pain relief medication. It is best that you are not alone for next 24 hours. In the days after egg pick-up, you can get back to your usual daily routine.

## Egg pick-up, the man

If you bring your semen when you come in for egg pick-up, it must not be more than one hour old when you deliver it to us. During transportation, the container must be kept close to the body so that the semen remains at body temperature, but it must not be hotter. If you prefer to provide a sperm sample at the clinic, we have a room where you can make it in absolute privacy, and you will not be disturbed.

To get the best possible semen sample it is important that you have not ejaculated during the last three days before egg pick-up. Sperm can get too old if they have been too long in the testicles, and therefore it is good if you ejaculate four days before egg pick-up and then not for the next 3 days.

## Embryo transfer

After collection, the eggs will be fertilised in the laboratory. The embryologist adds sperm to the eggs or injects sperm into each egg, also known as ICSI, micro-insemination. ICSI can be used if there are not many good sperm cells in the semen sample. The eggs and sperm are placed in an incubator until the next morning, where we can see how many eggs have been fertilised. Then we regularly look at the eggs under a microscope until the eggs are transferred back to the womb. This occurs two days after collection. You will usually have one egg put back into the womb. The transfer occurs in the same way as insemination. We put a thin catheter into the womb and inject the fertilised egg back in. It only takes a few minutes, and then you can carry on as usual. The eggs cannot come out of the womb again. For the next 14 days, you must apply a hormone stimulant cream in the vagina.

## Pregnancy test

You can take a pregnancy test approximately 16 days after embryo transfer. You can either do the test at home using urine or get your GP to take a blood test. Please contact us when you have the test results – even if you are not pregnant. If you are pregnant, we would like to see you for a pregnancy scan about three weeks later, when you are in the eighth week of pregnancy. Your own gynaecologist can also scan you, but we ask you to fax or e-mail the scan results to us. If you are not pregnant, stop the hormone stimulation, and you will get your period. It may be later than to your usual cycle.

## Other services in connection with IVF treatment

### Freezing of eggs

With IVF, usually fewer eggs are transferred back, than were taken out. If there is a surplus of suitable, fertilised eggs after treatment, they can be frozen and used in subsequent treatments. The thawed eggs are usually transferred in a natural cycle, and it is therefore less of a burden to you than regular IVF treatment with stimulation.

### ICSI

ICSI, or micro-insemination, can be a solution when infertility is due to the man having reduced sperm quality, or if normal IVF treatment has not resulted in fertilised eggs. It may also be a solution if the man has frozen semen of poor quality or produces antibodies against his own sperm.

The actual preliminary treatment, hormone stimulation, is the same as in conventional IVF. With ICSI, an extremely thin glass needle is used to fertilise the eggs by injecting a single sperm into each egg. The eggs are then placed in an incubator, where they will begin to divide. Ideally, they will have divided into 6-8 cells after three days and are ready for embryo transfer.

### TESA (testicular sperm aspiration)

If the man has been sterilised or has blocked sperm ducts for other reasons, we can obtain useable sperm by means of TESA. TESA is an operation under local anaesthetic to extract sperm from the scrotum. After local anaesthetic in the groin just above the scrotum, a thin hypodermic needle goes into the scrotum. The sperm is in small stings in the scrotum and these are sucked out through the needle. The embryologist then examines the cells for useable sperm, which must mature for 24 hours in the laboratory before they can be used in ICSI. TESA is therefore carried out the day before egg pick-up.

The actual operation takes about 30 minutes, after which you have to stay at the clinic and rest for an hour. You will experience tenderness in the scrotum for a few days after the operation and should take 1–2 days sick leave. You cannot drive immediately after the operation.

### FER (frozen embryo replacement)

When eggs are collected, usually more are taken out than are needed for the first attempt at IVF. Once fertilisation has taken place, the remaining eggs can be frozen for later use. Fertilised eggs are called embryos. Although the method we use to freeze the embryos, vitrification, is very gentle, it is a difficult process and we cannot predict how many of the embryos will be suitable for embryo transfer later. Embryo transfer can be carried out either in your own natural cycle or in a hormone-stimulated cycle, in which we have prepared the mucous membrane of the womb to receive the fertilised egg. In either case, after embryo transfer you must apply a hormone stimulant cream in the vagina. The hormone stimulant prevents you having a menstruation even though you are pregnant.

### Donor sperm

At your first consultation with us, we will tell you about the option of using donor sperm, if the tests show that the quality of the man's sperm is very low or there are no living cells in the sperm sample. We will advise you and discuss the ethical aspects involved in using donor sperm. Unfortunately, the fact is that sperm quality can vary from time to time, so it is important to make up your minds from the beginning about what you think about the option of using donor sperm if it proves necessary.

If you want to use donor sperm, we will discuss your wishes about the donor. You can choose eye colour, hair colour and height. If you want sperm with another ethnic origin than Danish, this is normally possible, but it obviously depends on whether the sperm bank has a donor with the ethnic background you want.

### Donors in general

We buy donor sperm from the Danish sperm banks, European Sperm Bank, Cryos International and SellmerDiers. The donors have to go through comprehensive physical and mental examination before they are approved. Whether there is hereditary disease in the family is also important. A man with a hereditary tendency to an illness cannot become a donor. Only 1 out of 10 men are approved. You can read about the selection criteria for donors on the sperm banks websites.