

# Newsletter

Part 2

Year 1, Issue 3, June 2018

## Female Infertility

### What is a risk factor?

A risk factor is something that makes a person more likely to develop a condition. Some risk factors, such as age cannot be changed. Other risk factors, such as lifestyle choices can be changed.

What are risk factors for female infertility?

#### • Age

A woman's fertility gradually declines with age and this decline becomes more pronounced in her mid-30s. As a woman gets older, the number and quality of her eggs decreases.

#### • Addictions

Use of tobacco, alcohol and illicit drugs lessens the chance of achieving a pregnancy. Women who smoke have a higher rate of miscarriages and tubal pregnancies. Excess intake of caffeinated drinks, tea can also interfere with fertility.

#### • Body weight

The chances of infertility are increased in females who are overweight or underweight. Women are also at risk of fertility problems if they have an eating disorder like anorexia or bulimia.

#### • Exercise

Lack of regular exercise contributes to obesity and disturbed body metabolism, which increases the risk of infertility. In few cases, frequent exercise that is too strenuous and intense can affect woman's ovulation pattern.

#### • Irregular periods

Irregular menstrual cycles can be an indication of anovulation.

#### • History of sexually transmitted infections

Some sexually transmitted infections can affect fertility.

#### • Chronic diseases and medications

Certain ailments such as diabetes mellitus, hypertension, thyroid diseases can impact female fertility. Prolonged use of medications such as birth control pills may interfere with female fertility. Also studies show that chemotherapy and radiation treatments decrease fertility.

#### • Lifestyle related factors

The life style related factors include wrong food habits, irregular sleeping patterns, erratic work schedule, constant mental stress etc. All these factors can disturb body metabolism at various levels including causing changes at hormonal level. These factors are thus observed to be debilitating for female fertility.

**-Dr. Deepali Pawar**

### Diagnosing Female Infertility

The primary step in diagnosing female infertility is detailed medical history and physical examination followed by hormonal assay and screening tests as follows:

Before starting the extensive and expensive evaluation for fertility, the following simpler and affordable steps can be considered.

#### 1. Basal body temperature -

This helps in determining whether ovulation is taking place. BBT charts help predict the time of ovulation. To create a BBT chart, a woman must record her temperature every morning before getting out of bed.

#### 2. Ovulation Predictor Kits (OPK) -

This detects the luteinizing hormone (LH), in the urine. Levels of LH reflect the presence or absence of ovulation. This helps determine the day of ovulation.

#### Lab tests:

##### A. Hormone tests -

###### 1. To assess ovarian reserve -

Ovarian reserve is the concept where woman's reproductive potential and the chances that a woman will be able to conceive a healthy, viable pregnancy with her own eggs are evaluated by testing following hormones:

- Follicle Stimulating Hormone (FSH) test - Levels are checked between days 2 and 4 of the woman's menstrual cycle. High FSH levels can be interpreted as indication of ovarian failure or peri menopausal or menopausal phase. Low levels of FSH may interpreted hampered egg production.
- Estradiol test - Levels of estradiol are checked between days 2 and 4 of the woman's menstrual cycle. Higher levels can indicate problems in ovulation.
- Anti-Mullerian Hormone (AMH) test - This can be tested at any time during the menstrual cycle. Normal levels of AMH in the blood indicate the presence of growing follicles.
- Clomiphene Citrate Challenge Test (CCCT) - A more sensitive test in which both FSH and estradiol levels are checked between days 2 and 4 of the menstrual cycle.

###### 2. Serum progesterone -

It is measured in second half of the menstrual cycle to confirm ovulation.

###### 3. Thyroid function tests -

T3, T4, TSH are measured to evaluate the functioning of the thyroid gland which can interfere with normal body physiology and ultimately reproductive system.

###### 4. Serum Prolactin (PRL) -

This hormone in large amounts can interfere with normal ovulation.

###### 5. Serum testosterone -

Increases in polycystic ovarian disease and can hamper ovulation.

##### B. Other -

###### 1. Tests for Sexually Transmitted Diseases -

Tests for sexually transmitted diseases, such as HIV, Hepatitis B and Hepatitis C, Syphilis, Chlamydia and Gonorrhoea are performed. These diseases may indirectly affect reproductive system and thus fertility.

###### 2. Post-Coital Test -

This test is done within 12 hours of intercourse to analyse whether the sperms survive in cervical mucus. Currently this test is not commonly used.

###### 3. Antisperm Antibody Test -

Sometimes, anti-sperm antibodies are produced by the woman's immune system. This test inspects presence of these antibodies in the sperms.

###### 4. Pap smear -

To check the health of the cervix.

###### 5. As a woman ages, the number of follicles declines.

Following are some tests to evaluate number of remaining eggs:

- Calculating the volumes of the ovaries:** Generally, smaller ovaries contain fewer eggs.
- Counting antral follicles:** Women who have fewer than three to five antral follicles appear to have poor chance of fertility.
- Measuring Inhibin B:** Inhibin B is a growth factor produced in the ovaries. Low levels suggest fewer eggs.

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C. Certain basic tests like complete blood count, blood sugar levels, urine routine are performed to evaluate the general health.

## D. Examination and imaging -

### 1. Ultrasonography -

Ultrasonography is used to examine the uterus, ovaries, endometrium, ovarian follicles and other pelvic organs.

### 2. Sono-hystero-graphy -

This is a special ultrasound technique to check the inside of the uterus for abnormalities such as scar tissue, fibroids or polyps.

### 3. Endometrial biopsy -

A tissue from uterine lining is taken between 7 to 12 days after ovulation to verify ovulation and inspect the endometrium (inner lining of the uterus).

### 4. Hysteroscopy -

Hysteroscopy is a procedure in which a fiberoptic 'telescope' is passed through the vagina into the uterus to check for abnormalities like polyps, fibroids, scar tissue etc.

### 5. Hysterosalpingogram -

In this test a dye is introduced through cervix and X- ray is taken to basically examine the patency of fallopian tubes.

### 6. Saline sonohysterogram -

In this procedure, sterile saline is injected into the cervix to fill the uterus and transvaginal ultrasound is done. The pelvic organs and patency of the tube is evaluated.

### 7. Laparoscopy -

Laparoscopy is a surgical procedure that uses laparoscope to examine the uterus, fallopian tubes, ovaries and pelvic surfaces, and can be used to treat problems that cause infertility such as scar tissue, ovarian cysts, fibroids and endometriosis.

### 8. Magnetic Resonance Imaging (MRI) -

MRIs can be helpful in identifying lesions or rare abnormalities inside the pelvis and uterus.

- Dr. Smita Chandrachud

## Our Approach in Female Infertility -

### Treatment to both partners: WHY?

Known causes of infertility can be related to either or both partners. In clinical practice it is observed that many a times in spite of correction of the known factors in either / both partners, conception does not occur. So It is very important to think of other possible factors.

According to the basic fundamentals of Ayurved mandatory factors for conception are:

1. Best quality or calibre of sperm as well as ovum.

Current available studies like ovulation study may not be sufficient to evaluate the 'Quality' of ovum.

2. Healthy and hygienic conditions of the female reproductive system in view of enhancement of functioning of sperm for conception.

3. Coitus to occur in proper fertility window.

4. Metabolism of both partners to be at optimum level.

It is always very important to address these factors from the beginning inspite of other known factors causing infertility.

This not only saves precious time and money, most importantly the stress.

Another positive feature of treating both the partners is the fact that the concept of 'Suprajanirmitee' is necessarily addressed by it. At Dyumna women's Clinic our comprehensive treatment plan comprises of therapies and detailed suggestions for lifestyle modification.

a. Therapies -

1. Personalised medicines and Rasayanas:

Personalised medicines are prescribed as per each individual considering various factors such as causes, lifestyle, metabolism. Rasayanas are specially prepared highly potent medicines that act on minute levels in the body boosting immunity, enhancing the overall health, fertility as well as the mental status.

2. Specialised treatment procedures in female infertility:

1. Basti -

Basti is a scientific procedure carried out in proper hygienic conditions in which medicines are instilled via anal route. When used to treat female infertility it facilitates good quality and production of ovum, increases general strength and vigour and boosts the health and vitality of the reproductive system.

2. Yoni Dhawan -

Yoni dhawan is a special treatment wherein vaginal canal is rinsed with medicated decoction under hygienic conditions.

This procedure helps to alleviate conditions such as vaginitis and cervicitis and establish healthy and hygienic conditions of the vagina and cervix, thus enhancing the activities of sperm.

3. Yonipichu -

It is a special treatment modality where sterile medicated tampon soaked in medicated oil or ghee is placed in the vagina for a specific period of time.

This is extremely useful in different aspects such as:

1) Dyspareunia (painful coitus).

2) In reducing vaginal dryness.

3) Maintaining healthy pH of the vagina and cervix.

4) Maintaining favourable conditions for sperm.

4. Uttarbasti -

Uttarbasti is a highly specialised procedure wherein medicated preparations are instilled in the uterus under aseptic conditions. This process has shown high efficacy in correcting ovulation cycle, maintaining optimal endometrial thickness, removing fallopian tube blockages and creating favourable conditions to enhance sperm activities.

5. Nasya -

Nasya is instillation of medicines through nasal route. It helps to maintain the balanced secretion of hormones like FSH and LH. It reduces stress level as well.

6. Virechana -

Virechana is one of the scientific processes which involves detoxification of body via purgation. Apart from other metabolic effects it enhances the structural and functional capabilities of reproductive system.

b. Suggestions for lifestyle modification related to -

1) Scientific and healthy approach towards diet.

2) Exercise.

3) Meditation and pranayam.

4) Sleep.

-Dr. Deepali Pawar

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Contact : care@dyumnawomensclinic.com www.dyumnawomensclinic.com Ph. No : 020-25465886

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