

# Newsletter

Part 2

Year 1, Issue 4, August 2018

## Male Infertility

### Male Infertility: Is prevention possible?

The personal, familial, and societal damages caused by infertility are inestimable and the economic costs very inordinate. Hence it would be much helpful if infertility can be prevented than treated. Evidence of a global decline in human sperm quality over recent decades has been increasing. As male fertility can be influenced by a variety of factors, one possible explanation for the declining trend would be that there are environmental and/or occupational factors along with lifestyle practices that contribute to the decline of semen quality. Lifestyle related problems causing male infertility can be prevented by taking better care of mind as well as body and living a healthier life. The environmental and occupational factors should be avoided as well.

Available evidence pertaining to the potential adverse effects of these lifestyle factors on male fertility diverge in strength. There are a wide variety of risk factors that could possibly influence sperm quality. These include lifestyle factors such as cigarette smoking, alcohol intake, use of illicit drugs, obesity, psychological stress, advanced paternal age, diet, and caffeine intake. In reality, exposure to these risk factors does not occur individually but rather simultaneously, with each one being at a varying duration and severity of exposure. Exposure to the confounding factors should also be taken into consideration.

The modifiable factors include:

1. Lifestyle modifications.
2. Age related consequences.
3. Medical conditions related awareness.

#### 1. Lifestyle modifications.

Incorrect lifestyle leads to various health hazards and disharmony in the body. Lifestyle modification can be important factor in maintaining favourable environment for fertility. The lifestyle modifications include healthy food, proper sleep, regular exercise along with minimal mental stress in daily life. One cannot avoid stress in today's frantic life, but can definitely increase the capacity to deal with it. Yoga and pranayama are extremely efficacious tools to increase the capacity of mind to deal with stress. Along with this, use of alcohol, tobacco, illicit drugs, carbonated drinks and excess consumption of tea and coffee should be avoided.

Other important part is maintaining favourable temperature for sperm production. Tight clothing should be avoided. Electronic gadgets such as mobile phones and laptop emit low levels of radiation which can affect sperm production. One should not sit with the laptop directly on lap for long periods of time. Cell phones should not be kept in the pant pocket or hooked to the belt.

#### 2. Age related awareness

Advanced age is one of the risk factors of infertility. Research suggests that, semen parameters such as sperm motility, semen volume etc. begin to decline above 34 years of age. Therefore, planning parenthood before that is advisable.

#### 3. Medical condition related awareness

Conditions like varicocele are considered to have negative effect on sperm cells for it elevates testicular temperature. Sexually transmitted diseases are widely known risk factors with asymptomatic presentations contributing in male infertility.

Therefore, it is imperative to intervene these conditions and restore harmony in reproductive system. Awareness of these conditions is equally important. Testicular injuries should be treated earliest, to avoid its long term consequences on fertility.

The adverse effects of above risk factors can be overcome to a large extent by behaviour modification and healthier lifestyle choices. In this manner, the harmful impact of these factors on the male reproductive potential could be alleviated.

Perhaps by maintaining an overall positive lifestyle, the burden of the multiple factors that could influence sperm quality and male fecundity, may instigate gradual improvement. In that respect, awareness and recognition of the possible effect of risk factors present in daily life is crucial amongst couples seeking conception.

#### 4. Counselling

a. Counselling of both partners is important if at all there is a plan to delay parenthood so that basic screening for fertility is made which gives good time to correct necessary factors if detected. This especially helps to avoid stress which comes as an inherent factor if the problems are detected at the actual time of planning for conception. As the influence of several risk factors leading to male infertility may be reversible, the couple may benefit from early counselling and clinical intervention.

b. Preconception counselling -

A comprehensive treatment plan of at least three months before starting to plan a baby can help boost the fertility of both partners and achieve conception without any hurdles.

**-Dr. Smita Chandrachud**

### Diagnosis of Male Infertility

The primary step in diagnosing male 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, following simple and affordable steps can be considered.

1. Semen analysis -

This test determines the number (count), quality (motility and morphology) and screen for infections of sperm, if any.

(Note-this test should be done by following 3 to 7 days abstinence).

2. Routine tests - Such as

- a. CBC.
- b. BSL-R.

3. Hormones -

Hormones produced by the pituitary gland, hypothalamus and testicles play a key role in sexual development and sperm production. Abnormalities in other endocrine or organ systems might also contribute to infertility.

To rule out male infertility following hormonal tests are indicated:

- a. TFT (Thyroid function tests).
- b. Sr. FSH, Sr. LH, Sr. Prolactin, Sr. Testosterone, Sr. Insulin.

# Newsletter

Part 2

Year 1, Issue 4, August 2018

## 4. Vitamins -

- a. Vitamin B-12.                      b. Vitamin D3.

## 5. Urine analysis -

Routine - To check for infections.

If a diagnosis is not obvious after the initial evaluation, further testing may be required. One or more of the following tests may be recommended:

- a. Post-ejaculation urine analysis - Sperm in urine can indicate sperm are traveling backward into the bladder instead out of the penis during ejaculation (retrograde ejaculation).

- b. Culture of fluid from penis - To check for infections.

## 6. Ultrasound -

- a. Scrotal ultrasound - A scrotal ultrasound can help to detect a varicocele or other problems such as damage or blockages in the testicles or reproductive tract and supporting structures.

- b. Transrectal ultrasound - A small, lubricate wand is inserted into rectum. It allows to check the prostate, and look for blockages of the tubes that carry semen (ejaculatory ducts and seminal vesicles).

## 7. Vasography -

An X- ray exam used to determine if there is blockage or leakage of sperm in the vas deferens.

## 8. Testicular biopsy -

A small piece of tissue is removed from the tubules in the testes and examined to determine how well sperms are being produced.

## 9. Laboratory Tests - Such as

- a. Sperm agglutination.  
b. Hemizona assay.  
c. Acrosome reaction.  
d. Hypo- osmotic swelling.

## 10. Anti-Sperm Antibody test -

To identify the presence of antibodies that may contribute to infertility.

## 11. Sperm Penetration Assay (SPA) -

To confirm the sperm's ability to fertilize.

## 12. Seminal Fructose test -

To identify if fructose is properly being added to the semen by seminal vesicles.

## 13. Genetic test -

When sperm concentration is extremely low, there could be a genetic cause. Genetic testing might be ordered to diagnose various congenital or inherited syndromes.

**-Dr. Deepali Pawar**

## Our Approach in male Infertility

At Dyumna women's clinic while addressing infertility treatment is given to both partners. Although the known causes of infertility can

be related to either or both partners, clinically it is observed that many a times in spite of correction of the known factors in either or both partners, conception does not occur. So it is essential to think of other possible factors. According to the basic fundamentals of Ayurved obligatory factors for conception are:

1. Best quality or calibre of sperm as well as ovum. Current available studies may not be sufficient to evaluate the 'Quality' of the sperm.
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 a proper fertility window.
4. Metabolism of both partners to be at optimum level.

It is constantly imperative to address these elements from the earliest starting point, regardless 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 male infertility-

**Basti - Basti** is a scientific procedure carried out in proper hygienic conditions in which medicines are instilled via anal route. Basti is a procedure which enhances the quality of life and is highly effective in various disorders. When used to treat male infertility, it facilitates good production of sperms, improves the motility and morphology of sperms, increases general strength, vigour and boosts the health as well as vitality of reproductive system.

**Nasya - Nasya** is instillation of medicines through nasal route. It helps to stimulate the pituitary to balance secretion of hormones like FSH & LH. It reduces stress level as well.

**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:

This includes guidance for-

1. Scientific and healthy approach towards diet.
2. Exercise.
3. Meditation and Pranayam.
4. Sleep.

**-Dr. Smita Chandrachud**

Published by Dyumna Womens Clinic

Contact : [care@dyumnawomensclinic.com](mailto:care@dyumnawomensclinic.com) [www.dyumnawomensclinic.com](http://www.dyumnawomensclinic.com) Ph. No : 020-25465886

**Disclaimer : This document is for internal use only. Though all efforts have been made to ensure the accuracy of the content in this newsletter, the organization and the editorial board gives no warranty, representation or undertaking on whether expressed or implied, nor does it assume any legal liability, whether direct or indirect, or responsibility for the accuracy, completeness, or usefulness of any information.**