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Review Article

Women Infertility: An Overview

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ABSTRACT

Female infertility is the major disorder which has altered the man kind foe lack of conception and reproducibility, stressful world, excess radiation, lack of biological food, genetically disorder ,changing life style, increased electronic discharge have resulted the female infertility. Infertility/ childlessness cause great personal suffering & distress. Most of this agony & misery is hidden from the public gaze. That is the reason this topic is not discussed about openly. The dismal ignorance & neglect about the causes of childlessness and its treatment are main reason for the lack of public support for childless couple. Female fertility can be limited or diminished or destroyed in a number of ways. Women have a finite number of germs cells and follicles that are available for a limited period, from menarche to menopause, during their lifetimes.

Key words: Infertility, Female Infertility, Menopause, Ovulation, Endometriosis, Laparoscopy

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INTRODUCTION

Infertility is usually defined as no pregnancy after one year of unprotected intercourse. This is a relative measurement. Over time, many couples may achieve pregnancy. In five years, nearly one half of "infertile" couples will conceive. Infertility also called sterility means not being able to become pregnant after a year of trying. If a woman keeps having miscarriages, it is called infertility. Lots of couples have infertility problems. About a third of the time, infertility can be traced to the woman. In another third of cases, it is because of the man. The rest of time, it is because of both partners or no cause is found.

Infertility is often defined as the inability to conceive after 12 months or more of unprotected well-timed intercourse without pregnancy. For young and healthy heterosexual couples having frequent intercourse, pregnancy will occur in about 85% and 93 regularly attempt of conception.

This rule does not apply to couples where the female is >35 years of age, or where either partner has a history of fertility-related problems. If the woman is >35, and has been trying unsuccessfully for >6 months, further consultation regarding investigation and treatment should be considered. If the female has a history of gynecological problems, or if it is known that the partner has a low sperm count, they should not delay seeing a specialist regarding the fertility status. Women 40 years and over: Begin investigation and treatment after 3 months.

Infertility/Childlessness cause great personal suffering & distress. Most of this agony & misery is hidden from the public gaze. That is the reason this topic is not discussed openly.

The dismal ignorance & neglate about the cause of childlessness and its treatment are main reason of the public support for childless couple. In many part of the childless couple are socially isolated and thus emotionally very vulnerable. In some societies the pressure to consive is directed toward the women, and it is often she who has to bear the brunt of its impact. Childlessness is a medical problem that involve both the couples and both of them remain involved if only one-person need medical treatment. Childlessness is like a chronic illness that uses up a large amount of a couple's resource emotional and financial physical & emotional energy.¹

Female infertility:

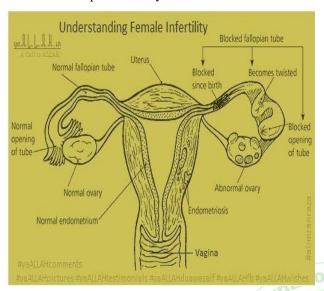
Female infertility is a common contributor to difficulties in producing children. At least half of all couples consulting for infertility will involve a female partner with a "problem". In the old days, the female partner used to bear the brunt of blame and only about 5% of couples seeking help with having a baby were thought to be due to a male infertility.

Infertility is not always a woman's problem. In only about one-third of cases is infertility due to the woman (female factors). In another one third of cases, infertility is due to

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the man (male factors). The remaining cases are caused by a mixture of male and female factors or by unknown factors 2.

Approximately 15% of couples are infertile. Of this 15%, male infertility counts for approximately 20% of the cases. Female infertility accounts for up to 70% of these cases, largely due to the very complex processes involved in the female reproductive system.



Female infertility may be due to:

Problems with a fertilized egg or embryo being able to survive once it is attached to the lining of the uterus

Problems with the eggs being able to attach to the lining of the uterus

Problems with the eggs being able to move from the ovary to the uterus

Problems with the ovaries producing eggs

More and more women are waiting until their 30s and 40s to have children. Actually, about 20 percent of women in the United States now have their first child after age 35. So age is an increasingly common cause of fertility problems. About one third of couples in which the woman is over 35 have fertility problems³.

Aging decreases a woman's chances of having a baby in the following ways:

The ability of a woman's ovaries to release eggs ready for fertilization declines with age.

The health of a woman's eggs declines with age.

As a woman ages she is more likely to have health problems that can interfere with fertility.

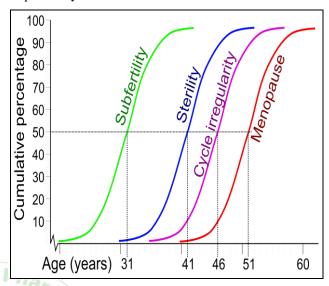
As a women ages, her risk of having a miscarriage increases.

Description of Female Infertility:

Female infertility is a common contributor to difficulties in producing children. At least half of all couples consulting for infertility will involve a female partner with a "problem". In the old days, the female partner used to bear the brunt of blame and only about 5% of couples seeking help with having a baby were thought to be due to a male infertility.

Sub-fertility

Any other diagnoses in couples, apart from the three aforementioned, represent some degree of sub-fertility, i.e., there is some finite chance, however small, of conception without the assistance of fertility treatments. Fertility treatments in sub-fertile couples should be undertaken when the odds of conception could be improved by treatment.²



Female Cycle:

The normal female cycle as most ladies know, their cycles are about 28 days long. Every 28 days, a bleed lasting about 5 days will occur. Four hormones control this cycle and they are controlled mainly by the hypothalamus, which is an area in the brain. It acts on the pituitary gland to release FSH and LH, the sex hormone that stimulate the ovary and produce ovulation. Under the influence of FSH and LH, the ovary makes estrogen. The estrogen has a strong effect on the uterus, causing the lining of the womb to grow during the first 14 days of the cycle. After ovulation progesterone becomes the important hormone. Its main action is to maintain the endometrium so that the fertilized egg may implant. If it does, pregnancy results, if not the bleed will occur.⁴

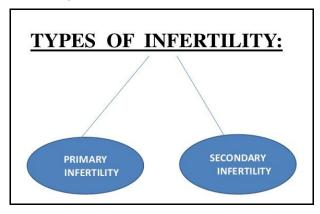
An ovulation:

No cycle, no bleeds, no ovulation, no baby, a common cause of infertility in women. It is sometimes caused by low levels of LH and FSH (sex hormone) which result in low estrogen and progesterone levels. In some women, anovulation is manifested by high FSH levels indicating primary ovarian failure. Often the women may be turners (XO) syndromes. An ovulation may; Also be caused by hyperprolactinaemia (excessive production of prolactin how contraception is in nursing mothers). This hormone normally induces the breasts to produce milk. Prolactin is also able to suppress ovulation. Ovulation can sometimes be variable-oligomenorrhoea.

Symptoms

The main symptom of infertility is the inability to get pregnant. A menstrual cycle that's too long (35 days or more), too short (less than 21 days), irregular or absent can mean that you're not ovulating. There may be no other outward signs or symptoms.⁵

Types of Female Infertility: There are two main types of infertility seen in women:



1. Primary Infertility: Refers to the condition in which a couple has never been able to conceive.

Endometriosis: Mainly affects women in their 30s to 40s and about 40% of women with endometriosis. This is when lining from your uterus is found outside of your uterus. Endometriosis will have some problem conceiving. The main cause of infertility from endometriosis seems to be scarring and adhesions that result in a blockage 6.

Polycystic Ovarian Syndrome (PCOS): The bad news about PCOS is that it is one of the main causes of infertility among women yet is severely under diagnosed (less than 25% of women who suffer from the syndrome have actually been diagnosed). One of the main reasons that it is not diagnosed is because symptoms of the syndrome generally do not appear to have any connection with each other. Usually it's not until a women has troubles getting pregnant and she get professional help that she learns she has PCOS. Some symptoms of PCOS include weight gain, acne, and irregular or absent periods, infertility, and failure to ovulate. PCOS can be diagnosed through a series of blood tests. It can easily be managed through the use of hormones that will trigger ovulation and will also help you get pregnant.

Ovulatory Disorders: About 40% of female fertility problems are caused by ovulation problems such as irregular periods or falling to ovulate at all. These disorders can be caused

by a variety of things such as excessive weight loss, stress, thyroid problems or hormone imbalances.

Premature Ovarian Failure (POF): This can be a very upsetting diagnosis as it means that you are no longer menstruating even though you are under the age of 40. Causes of POF can range from defects from before birth (like a chromosomal abnormality that results in defective ovaries) to your ovaries becoming resistant to your body's natural hormones when you are in your 20s and 30s. Pelvic surgery, chemotherapy, and radiation have also been known to result in POF. In very few cases, POF is present in a woman's family history.

Uterine Factors: This category encompasses problem you may have with your uterus. If you have gone for fertility testing, you will probably receive a specific diagnosis as to just what the problem is. Some possible factors that can affect your uterine and your ability to

conceive include uterine fibroids, uterine didelphys (this when you a born with a uterus that is made up of two parts with a wall dividing them), a complete lack of a uterus, scar tissue in the uterus or exposure to DES in the womb (DES was a drug given to pregnant women up until the late 1960s. Children born to women who took this drug often had defects, one of which is irregularly shaped uterus).

Multiple Miscarriages: Suffering from a miscarriage is always difficult, but suffering from one when you have been trying for months to get pregnant can be truly upsetting. While the main cause of miscarriage is genetic defects with the fetus, miscarriage can also be caused by problems

with the uterus or cervix, unusual hormone levels, or infections or toxins in the environment.

Luteal Phase Defect (LPD): This can be caused by two things both involving your body's progesterone development. The first cause of LPD is attributed to your ovaries not secreting enough progesterone. The second reason could be that your endometrium is not responding is not properly prepared for pregnancy, thereby causing either fertility problems or an early miscarriage.

2. Secondary Infertility:

Refers to those cases where a couple has been successful in conceiving at least once, but has been unsuccessful after that. It is important to keep communication open between you and your partner so that you both know what each other wants, hopes for and is willing to do (or not do) to become parents again.

3. Unexplained Infertility:

This may be one of the most aggravating things to hear if you are having troubles conceiving. Yes, even after going through all sorts of tests to figure out what is wrong, one in five couples will be told that their infertility is unexplainable. This doesn't mean that there isn't a reason for your fertility problems. Rather, the tests available today are not able to identify just what the problem is. But what does this means for you? That's hard to say. You can explore the different fertility treatment options or just keep trying and hope for the best. If your fertility problems can't be identified, talk with your health care provider as well as you partner as to what the best course of action may be for you.

Poor Responder: Women who have been going through fertility treatments that involve medication to stimulate ovulation and have had no luck may fall into this category. If you find yourself in this situation, then it indicates

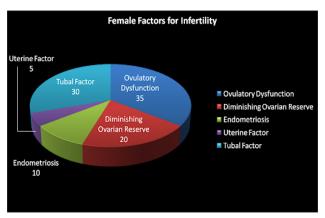
that you require a higher dosage of stimulation medication yet you may still have a negative outcome. If you have been considering IVF, try having an ovarian reserve test done beforehand. Women who do not respond well to fertility drugs are often not very successful at conceiving through IVF.

Having an ovarian reserve test performed may help you save time, money and stress by letting you know if you are a suitable candidate for IVF. If you are a suitable candidate, then you and your health care provider may want to try different kinds of stimulants medications to see which one you respond best to. If you are a 'poor

responder,' then make sure you are receiving treatment from a facility that has experience with other women who have been diagnosed as poor responders. This will help ensure that you get the best care designed just for you.⁶

Causes of Female Infertility:

The most common causes of infertility seen in women are:



Ovulation Disorders

Ovulation disorders, meaning you ovulate infrequently or not at all, account for infertility in about 1 in 4 infertile couples. Problems with the regulation of reproductive hormones by the hypothalamus or the pituitary gland, or problems in the ovary, can cause ovulation disorders.

Polycystic ovary syndrome (PCOS).

PCOS causes a hormone imbalance, which affects ovulation. PCOS is associated with insulin resistance and obesity, abnormal hair growth on the face or body, and acne. It's the most common cause of female infertility.

Hypothalamic dysfunction

Two hormones produced by the pituitary gland are responsible for stimulating ovulation each month — follicle-stimulating hormone (FSH) and luteinizing hormone (LH). Excess physical or emotional stress, a very high or very low body weight, or a recent substantial weight gain or loss can disrupt production of these hormones and affect ovulation. Irregular or absent periods are the most common signs.

Premature ovarian failure.

Also called primary ovarian insufficiency, this disorder is usually caused by an autoimmune response or by premature loss of eggs from your ovary (possibly from genetics or chemotherapy). The ovary no longer produces eggs, and it lowers estrogen production in women under the age of 40.

Too much prolactin.

The pituitary gland may cause excess production of prolactin (hyperprolactinemia), which reduces estrogen production and may cause infertility. Usually related to a pituitary gland problem, this can also be caused by medications you're taking for another disease.

Damage to fallopian tubes (tubal infertility)

Damaged or blocked fallopian tubes keep sperm from getting to the egg or block the passage of the fertilized egg into the uterus. Causes of fallopian tube damage or blockage can include:

- Pelvic inflammatory disease, an infection of the uterus and fallopian tubes due to chlamydia, gonorrhea or other sexually transmitted infections.
- Previous surgery in the abdomen or pelvis, including surgery for ectopic pregnancy, in which a fertilized egg implants and develops in a fallopian tube instead of the uterus.
- Pelvic tuberculosis, a major cause of tubal infertility worldwide, although uncommon in the United States.

Endometriosis

Endometriosis occurs when tissue that normally grows in the uterus implants and grows in other locations. This extra tissue growth — and the surgical removal of it — can cause scarring, which may block fallopian tubes and keep an egg and sperm from uniting.

Endometriosis can also affect the lining of the uterus, disrupting implantation of the fertilized egg. The condition also seems to affect fertility in less-direct ways, such as damage to the sperm or egg.

Uterine or cervical causes

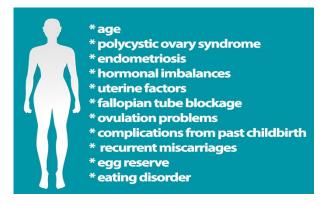
Several uterine or cervical causes can impact fertility by interfering with implantation or increasing the likelihood of a miscarriage:

- Benign polyps or tumors (fibroids or myomas) are common in the uterus. Some can block fallopian tubes or interfere with implantation, affecting fertility. However, many women who have fibroids or polyps do become pregnant.
- Endometriosis scarring or inflammation within the uterus can disrupt implantation.
- Uterine abnormalities present from birth, such as an abnormally shaped uterus, can cause problems becoming or remaining pregnant.
- Cervical stenosis, a narrowing of the cervix, can be caused by an inherited malformation or damage to the cervix.
- Sometimes the cervix can't produce the best type of mucus to allow the sperm to travel through the cervix into the uterus.

Unexplained infertility

Sometimes, the cause of infertility is never found. A combination of several minor factors in both partners could cause unexplained fertility problems. Although it's frustrating to get no specific answer, this problem may correct itself with time. But, you shouldn't delay treatment for infertility.⁷

Risk factors



Certain factors may put you at higher risk of infertility, including:

Age.

The quality and quantity of a woman's eggs begin to decline with increasing age. In the mid-30s, the rate of follicle loss speeds, resulting in fewer and poorer quality eggs. This makes conception more difficult, and increases the risk of miscarriage.

When to seek help sometimes depends on your age:

Up to age 35, most doctors recommend trying to get pregnant for at least a year before testing or treatment.

If you're between 35 and 40, discuss your concerns with your doctor after six months of trying.

If you're older than 40, your doctor may want to begin testing or treatment right away.

Smoking.

Besides damaging your cervix and fallopian tubes, smoking increases your risk of miscarriage and ectopic pregnancy. It's also thought to age your ovaries and deplete your eggs prematurely. Stop smoking before beginning fertility treatment.

Weight.

Being overweight or significantly underweight may affect normal ovulation. Getting to a healthy body mass index (BMI) may increase the frequency of ovulation and likelihood of pregnancy.

Sexual history.

Sexually transmitted infections such as chlamydia and gonorrhea can damage the fallopian tubes. Having unprotected intercourse with multiple partners increases your risk of a sexually transmitted infection that may cause fertility problems later.

Alcohol.

Stick to moderate alcohol consumption of no more than one alcoholic drink per day.

Abnormalities in cervix shape: or change in the texture of cervical mucus can make the movement of sperm from vagina to uterus extremely difficult.

Immunological Disorders:

Sometimes, the cervical mucus may contain antibodies, which treat the sperm as a toxic foreign invader and destroy it. Autoimmune diseases, in which the immune cells of a woman attack normal cells of her own body, are also responsible for ovarian problems.

Tubal causes:

Infections caused by both bacteria and viruses and usually transmitted sexually, these infections commonly cause inflammations resulting in

- Inflammatory Diseases;
- Postpartum;
- Postabortion;
- Postoperative complications;
- Fallopian tubes endometriosis.

Functional Tubal Infertility Reasons Are:

- Pathology of the neuroendocrine system for regulating reproductive function;
- Steroidogenesis;
- prostaglandin involvement.

scarring and damage. A specific example is Hydrosalpnix; a condition in which the fallopian tube is occluding at both ends and fluids collects in the tube.

- Ovulation disorders
- Early Menopause
- Clotting disorders
- Inflamation Of Fallopian Tube

One more type is infertility due to malformations and disorders in the reproductive system, e.g

- Hymen, vagina or cervical canal atresia;
- Acquired cervical canal fusion;
- Vaginal aplasia;
- Double reproductive organs (uterus and vagina);
- Traumatic damage to the genitals;
- Retroflexed uterus and uterine.⁸

DIAGNOSIS 9

If you've been unable to conceive within a reasonable period of time, seek help from your doctor for evaluation and treatment of infertility.

Fertility tests may include:

Female Infertility Tests

- For ovulation
 - · Basal body temperature
 - Ovulation kit (LH surge)
 - Other hormone tests (steroids)
- Post ovulatory block
 - •Laparoscopy-fiber optic look
 - •Hysterosalpingogram-dye
 - Post-coital /cervical mucous and sperm
 - Sperm antibodies
 - Endometrial biopsy

Ovulation testing.

An at-home, over-the-counter ovulation prediction kit detects the surge in luteinizing hormone (LH) that occurs before ovulation. A blood test for progesterone — a hormone produced after ovulation — can also document that you're ovulating. Other hormone levels, such as prolactin, also may be checked

Hysterosalpingography.

During hysterosalpingography (his-tur-o-sal-ping-GOG-ruh-fee), X-ray contrast is injected into your uterus and an X-ray is taken to detect abnormalities in the uterine cavity. The test also determines whether the fluid passes out of the uterus and spills out of your fallopian tubes. If abnormalities are found, you'll likely need further evaluation. In a few women, the test itself can improve

fertility, possibly by flushing out and opening the fallopian tubes.

Ovarian reserve testing.

This testing helps determine the quality and quantity of eggs available for ovulation. Women at risk of a depleted egg supply — including women older than 35 — may have this series of blood and imaging tests.

Other hormone testing.

Other hormone tests check levels of ovulatory hormones as well as thyroid and pituitary hormones that control reproductive processes.

Imaging tests.

A pelvic ultrasound looks for uterine or fallopian tube disease. Sometimes a sonohysterogram, also called a saline infusion sonogram, is used to see details inside the uterus that can't be seen on a regular ultrasound.

Depending on your situation, rarely your testing may include:

Other imaging tests.

Depending on your symptoms, your doctor may request a hysteroscopy to look for uterine or fallopian tube disease.

Laparoscopy.

This minimally invasive surgery involves making a small incision beneath your navel and inserting a thin viewing device to examine your fallopian tubes, ovaries and uterus. A laparoscopy may identify endometriosis, scarring, blockages or irregularities of the fallopian tubes, and problems with the ovaries and uterus.

Genetic testing. Genetic testing helps determine whether there's a genetic defect causing infertility.

PREVENTION:-

For women thinking about getting pregnant soon or in the future, these tips may help optimize fertility:

Maintain a normal weight. Overweight and underweight women are at increased risk of ovulation disorders. If you need to lose weight, exercise moderately. Strenuous, intense exercise of more than five hours a week has been associated with decreased ovulation.

Quit smoking. Tobacco has multiple negative effects on fertility, not to mention your general health and the health of a fetus. If you smoke and are considering pregnancy, quit now.

Avoid alcohol. Heavy alcohol use may lead to decreased fertility. And any alcohol use can affect the health of a developing fetus. If you're planning to become pregnant, avoid alcohol, and don't drink alcohol while you're pregnant.

Reduce stress. Some studies have shown that couples experiencing psychological stress had poorer results with infertility treatment. If you can, find a way to reduce stress in your life before trying to become pregnant.

Limit caffeine. Research suggests that limiting caffeine intake to less than 200 milligrams a day shouldn't affect your ability to get pregnant. That's about one to two cups of 6 to 8 ounces of coffee per day. ¹⁰

Behavioral Factor. It is well known that certain personal habit and life style factors impact health, many of these same factors may limit.

Diet & Exercise. Optimal reproductive functioning requires both proper diet and appropriate levels of exercise. Women who are significantly over —weight or under-weight may have difficulty becoming pregnant.

Drugs. Drugs such as marijuana and anabolic steroids, may impact sperm count in man.

Medical Treatment & Materials. Repeted exposure to radiation ranging from x-rays to chemotherapy, has been shown to alter sperm production as well contribute a wide array of overian problem.

Treatments of Female Infertility: Treatment based upon three categories:

- 1. Allopathic treatment
- 2. Natural treatment
- 3. Home remedies

Allopathic Treatment: Various fertility medicines are often used to treat women with ovulation problems. It is important to talk with your doctor about the pros and cons of these medicines. You should understand the risks, benefits, and side effects. Doctors also use surgery to treat some causes of infertility. Problems with a woman's ovaries, fallopian tubes, or uterus can sometimes be corrected with surgery.

Intrauterine insemination (IUI): This is another type of treatment for infertility. IUI is known by most people as artificial insemination. In this procedure, the woman is injected with specially prepared sperm. Sometimes the woman is also treated with medicines that stimulate ovulation before IUI ¹¹.

Assisted reproductive technology (ART): This is a term that describes several different methods used to help infertile couples. ART involves removing eggs from a woman's body, mixing them with sperm in the laboratory and putting the embryos back into a woman's body.

Some methods includes in ART are following:

In vitro fertilization (IVF): Means fertilization outside of the body. IVF is the most effective ART. It is often used when a woman's fallopian tubes are blocked or when a man produces too few sperm. Doctors treat the woman with a drug that causes the ovaries to produce multiple eggs. Once mature, the eggs are removed from the woman. They are put in a dish in the lab along with the man's sperm for fertilization. After 3 to 5 days, healthy embryos are implanted in the woman's uterus.

Zygote Intrafallopian Transfer (ZIFT): or Tubal Embryo Transfer is similar to IVF. Fertilization occurs in the laboratory. Then the very young embryo is transferred to the fallopian tube instead of the uterus.

Gamete Intrafallopian Transfer (GIFT): involves transferring eggs and sperm into the woman's fallopian tube. So fertilization occurs in the woman's body. Few practices offer GIFT as an option.

Intracytoplasmic Sperm Injection (ICSI): is often used for couples in which there are serious problems with the sperm. Sometimes it is also used for older couples or for

those with failed IVF attempts. In ICSI, a single sperm is injected into a mature egg. Then the embryo is transferred to the uterus or fallopian tube 12 .

Natural Treatment: In the past several years, fertility specialists have made great strides in diagnosing and treating infertility. Surgery and hormone therapy can correct some infertility problems, they are following:

Exercise: Exercise is a great way for women to increase fertility and promote overall health. Regular exercise regulates hormone production, reduces stress and will even increase blood flow to a woman's reproductive organs. Reducing stress is also important for conception.

Stop Smoking: Research clearly shows that smoking has a negative impact on conception in International Journal of Pharmaceutical Sciences and Research both men and women. In fact, studies reveal that women who smoke increase both the time to conception and the risk of spontaneous abortion ¹³⁻¹⁴.

Drink Plenty of Water: Keeping your body hydrated at all times is important for every aspect of fertility including aiding in vitamin absorption, cleansing the body from fertility-inhibiting toxins, and warding off dehydration. It's also necessary for optimizing your cervical mucus which is what protects and nourishes sperm until it reaches the egg.

Chaste Berry: Natural herbs have also helped women get pregnant. One of the most common herbs used for fertility is the chaste berry. The herb comes from the fruit of a chaste tree and can be found in central Asia. For thousands of years this herb has been used by women to stimulate the production of breast milk and ease menstrual pain.

Have Sex Frequently: Working to get pregnant and timing it each month can become extraordinarily stressful and rote. Try to have sex regularly, at least once every few days, and have fun with it. You may very much enjoy the light-heartedness of having sex when you least think you can get pregnant.

Eat in Hormonal Balance: Many infertility issues can be attributed to abnormal hormonal fluctuations. Eating a balanced diet is one of the most effective methods to balance hormonal secretion of insulin and regulate proper glucose control. Along with improving your nutrient intake, this includes removing all processed flours and sugars such as white bread, pasta, pop, candy, and sugary juice from the diet.

Home remedies:

Jamun Leaves (*Eugenia jambolana* or *Syzygium cumini* L): To deal with the female infertility problem, you can eat jamun leaves. Add some honey in case you don't like the taste of jamun leaves.

Root of Banyan Tree: Roots of banyan tree are highly effective in curing the female infertility problem. Collect these roots and dry them in sun for few days. Then grind them and make fine powder from them. When your menstrual cycles are over after that on the first night have this powder with milk. Make sure that you don't eat

anything immediately after having this. Follow this remedy for about one year. There will be surely some good news waiting for you and all thanks to this simple and easy remedy.

Winter Cherry: This herb is also useful in the treatment of female infertility. Dry this herb and store it in powder form. After your menstrual cycle gets over start drinking 6 gram of this powder by putting it in one cup of milk. Do this for about one week and then again stop. Next month again follow the same procedure ¹⁵.

Curd and Cheese: Include cheese and curd in your daily meal, as these two are effective in increasing the chances of fertility in women.

Egg Plant: Egg plant is effective in the treatment of female infertility. Cook this egg plant and have it with buttermilk. Try this remedy for about two months, as it will definitely help to cure female infertility problems ¹⁶.

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Yoga: Joining some yoga classes, as some of the postures of Yoga really help in curing female infertility. It is better to do these postures under the guidance of experienced teacher.

Vitamin C and Vitamin E: Both these vitamins are very effective in increasing the chances of fertility in women. Apart from this zinc is also effective in cure of female infertility. 1000mg of vitamin C and 30 mg of zinc should be consumed on a daily basis ¹⁷.

Diet: You must eat lots of green vegetables, fresh fruits, nuts, seeds, grains, milk, honey, curd, cheese, sprouts, beans, etc. All these things are needed for having a healthy body.¹⁸

Avoid: You should not drink coffee 18, tea, spicy and fatty food, white flour, fried foods and soft drinks. Also stay away from smoking and drinking alcohol. You should not consume any drugs like heroin and marijuana etc ¹⁹.

Stay happy: Female infertility is also caused due to stress, tension, fear and anxiety. So try to remain happy. If you have free time, then do something that gives you immense pleasure. Be nice to your partner and try to do what your partner likes ²⁰⁻²¹.

CONCLUSION:

Female infertility is the major cause of lack of reproducibility and conception. 25% of the couples are tracing this problem. Many reasons are sorted out for female infertility but through proper diagnosis and counseling for treatment of female infertility can be only ray of hope. Review reveals extensively all the major reasons and causes for infertility. All these problems can surely be sorted out to come out this problem. Female infertility can surely be treated with medicines, minor surgical operations, laparoscopic procedures, hormonal therapy and prevention of preconception failure. The review is helpful to all the scientific, medical researchers who can put efforts to put end to female infertility.

REFERENCES:

- Gerhard I, Patek A, Monga b, et al. Mastodynon bei weiblicher Sterilitat Forsch Komplementar med,1998. 5:272-278.
- Domar AD, Seibel MM, Benson H, The mind/body program for infertility:a new behavioral treatment approach for women with infertility, Fertile Sterile. 1990; 53:246-249.
- J. H. P. Rang, M. M. Dale, J.m.Ritter and P.K.moore, pharmacology 2003; 5th edition.
- Newton CR, Sherrard W, Glavac I. The Fertility Problem Inventory: measuring perceived infertility-related stress. Fertile Steril. 1999; 72:54-62.
- Bakos, O., Lundkvist, O., Bergh, T. Transvaginal sonographic evaluation of endometrial growth and texture in spontaneous Ovulatory cycles: a descriptive study. Human Reproduction, 8, 1993; 799-806.
- Check, J. H., Maze, C., Davies, E., Wilson, and C. Evaluation of the effect of endometriosis on oocyte quality and endometrial environment by comparison of donor and recipient outcomes following embryo transfer in a shared oocyte program. Fertility and Sterility, 2002; 78(1001), 201-202.
- Czeizal AE, Metneki J, Dudas I. The effect of preconceptional multivitamin supplementation on fertility. Int J Vitam Res.; 1996; 66:55-58.
- Domar AD, Zuttermeister PC, Friedman R "The psychological impact of infertility: a comparison with patients with other medical conditions". J Psychosom Obstet Gynaecol 1993; 14, 45–52.
- Propping D, Katzorke T, Belkien L. Diagnosis and therapy of corpus luteum deficiency in general practice translated from German. Therapiewoche. 1988; 38:2992-3001.

- Harrison RF, O'Moore AM. Stress and Fertility: some modalities of investigation and treatment in couples with unexplained infertility in Dublin. Int J Fertil. 1986; 31:153-159
- O'Moore AM, O'Moore RR, Harrison RF. Psychosomatic aspects in idiopathic infertility: effects of treatment with autogenic training. J Psychosom Res. 1983; 27:145-151.
- 12. Gravitz MA. Hypnosis in the treatment of functional infertility. Am J Clin Hypn. 1995; 38:22-26.
- Thys-Jacobs S, Donovan D, Papadopulus A, et al. Vitamin D and calcium disregulation in the polycystic ovarian syndrome. Steroids. 1999; 64:430-435.
- Caan B, Quesenbery CP Jr, Coates AO. Differences in fertility associated 1984;28:104-108.
- International Journal of Pharmaceutical Sciences and Research ISSN: 0975-8232 Available online on www.ijpsr.com 12
- Hatch EE, Bracken MB. Association Of delayed conception with caffeine consumption. Am J Epidemiol 1993;138:1082-92
- Stanton CK, Gray RH. Effects of caffeine consumption on delayed conception. Am J Epidemiol 1995; 142:1322-9?
- Williams MA, Monson RR, Goldman MG, et al. Coffee and Delayed conception. Lancet 1990; 335:1603.
- Grodstein F, Goldman MB, Ryan L, Cramer DW. Relation of female infertility to consumption of caffeinated beverages. Am J Epidemiol 1993; 137:1353-60?
- 20. Wilcox A, Weinberg C, Baird D. Caffeinated beverages and decreased fertility. Lancet 1988; 2:1453-6.
- Joesoef MR, Beral V, Rolfs RT, et al. Are caffeinated beverages risk factors for delayed conception? Lancet 1990; 335:136-7.

