

## **MALE INFERTILITY AND ITS TREATMENT BY ALTERNATIVE MEDICINE: A REVIEW**

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### **Summary**

Alternative medicine is been attracted by all the physician and pharmacist for their high value of therapeutic effect with least or minimum toxicity. Infertility is the major problem in high class of society, people working in IT sector, telecommunication, electronics and other BPO centers. Due to heavy radiation discharged during the operations procedures it is been reported that it affects 25% of the personnel of such tasks. The present review confined to find out the effective remedy to avoid the oligospermia, atherospermia and other male contraindications. Alternative medicines may the only way of remedy for such complications.

**Keywords:** Infertility, oligospermia, atherospermia, gonadotropin.

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### Introduction

Infertility is when an otherwise healthy couple can't conceive (get pregnant) despite having sex regularly without using contraception. Few couples are actually infertile most are sub fertile. This means there are problems with getting pregnant, but it's still possible with medical help. The terms subfertile is also used if you can get pregnant but keep having miscarriages. If you cannot conceive at all, this is called primary infertility. Secondary infertility is when you've had one or more babies in the past but can't conceive again, or if you've had one or more miscarriages or stillborn babies. Getting pregnant takes longer than many people think. <sup>1</sup> Most couples who have sex regularly without using contraception get pregnant within two years, but each month your chance of getting pregnant is only 20%. Although there isn't a cut off point to say when a couples infertile, its worth seeing your GP if you haven't conceived after one year of trying. Your GP may be able to check for common causes, and suggest treatments that could help. Conception happens when a sperm from the man burrows into an egg (ovum) from the woman and fertilizes it. This makes an embryo, which settles in the lining of the womb and grows into a baby. The woman releases an egg every month as part of the menstrual cycle. <sup>2</sup>

### Non-Surgical & Surgical Treatment:

Electro ejaculation	This procedure can be used to produce ejaculation when neurological dysfunction prevents it. An electrical rectal probe generates a current that stimulates nerves and induces ejaculation; semen dribbles out through the urethra and is collected. Retrograde ejaculation is associated with the procedure and sodium bicarbonate is usually taken the day before to make the urine alkaline (non acidic) and non detrimental to sperm. Candidates for electro ejaculation include men who have undergone testis removal (orchietomy), retroperitoneal lymph node dissection (RPLND), and those with spinal cord injuries. <sup>3,4</sup>
Sperm retrieval	This technique is used to obtain sperm from the testes or epididymis when obstruction, congenital absence of the vas deferens, failed vasectomy reversal, or inadequate sperm production causes azoospermia. Using a technique called micro epididymal sperm aspiration (MESA), a surgeon makes an incision in the scrotum and gathers sperm from the epididymis, the elongated, coiled duct that provides for the maturation, storage, and passage of sperm from the testes. <sup>5</sup> Percutaneous epididymal sperm aspiration (PESA, or fine needle aspiration) is similar to MESA but does not involve microsurgery. A physician uses a needle to penetrate the scrotum and epididymis and draws sperm into a syringe. Testicular sperm extraction (TESE), the removal of a small amount of testicular tissue, is used to retrieve sperm from men with impaired sperm production, or when MESA fails. <sup>6,7</sup>
Sperm washing	This procedure isolates and prepares the healthiest sperm for insemination. Sperm and washing medium are combined and spun rigorously (centrifuged) and the process is repeated if necessary. The process separates sperm from white blood cells and fatty acids (prostaglandins) in the semen that may hinder sperm motility. It also concentrates sperm,

	which increases the chance for conception. Sperm retrieved by MESA, PESA, or TESE may be used in in vitro fertilization (IVF) and intracytoplasmic. <sup>7</sup>
Sperm injection (ICSI)	IVF involves combining eggs with sperm in a laboratory, providing proper fertilization conditions, and transferring the resulting embryos to the uterus. To retrieve an egg, a specialist uses ultrasound to guide a fine needle through the vaginal wall and into the ovary or makes an incision in the abdomen to get to the ovary (laparoscopy). Once the eggs are retrieved, they are combined with prepared sperm in a sterile dish for 2 to 4 days. After fertilization, the embryos are transferred to the uterus. IVF is used most commonly for infertility caused by female reproductive abnormalities. <sup>8</sup>
Intracytoplasmic sperm injection (ICSI)	May be used with immotile sperm during in vitro fertilization. Using a tiny glass needle, one sperm is injected directly into a retrieved mature egg. The egg is incubated and transferred to the uterus. Fertilization occurs in 50% to 80% of cases and approximately 30% result in a live birth. The egg may fail to divide or the embryo may arrest at an early stage of development. Younger patients achieve more favorable results and poor egg quality and advanced maternal age result in lower success rates. ICSI does not increase the incidence of multiple pregnancies. Long-term information about the health and fertility of children conceived through this procedure is not available because it was first performed in 1992. While excess sperm from MESA or PESA can usually be frozen for future use, most TESE-derived sperm are not of sufficient quality or quantity for frozen storage (cryopreservation). Multiple MESA or PESA procedures are not recommended, since repetition can lead to scarring. <sup>8,9</sup>
Gamete intrafallopian transfer (GIFT)	This procedure is recommended for couples with unexplained fertility problems and normal reproductive anatomy. Mature eggs and prepared sperm are combined in a syringe and injected into the fallopian tube using laparoscopy. Embryos that result from this procedure naturally descend into the uterus for implantation. Average conception rate for these procedures is about 30%. <sup>10</sup>
Surgery	For male infertility is performed to treat reproductive tract obstruction and varicocele. <sup>11</sup>
Vasopididymostomy	Vasopididymostomy is a microsurgical procedure that corrects obstruction in the coiled tube that connects the testes with the vas deferens (epididymis). Obstructions commonly result from STDs and also include cysts and tubal closure (atresia), which is usually genetic. <sup>12</sup>
Vericolectomy	The removal of a varicocele from the testes, often results in increased sperm count. <sup>13</sup>

**Table 1: Non-Surgical & Surgical Treatment**

**Hydrotherapy for Infertility:**

Hydrotherapy treatment, formerly known as hydropathy, is considered one of the oldest forms of medical treatments. Hydrotherapy works by exploiting the body's natural reactions to hot and cold water and has recently been used as a natural fertility treatment to help both male infertility and female infertility.<sup>14</sup>

**Hydrotherapy for Fertility:**

Hydrotherapy has been used as a natural fertility treatment to help both female infertility and male infertility. Because hydrotherapy affects the production of stress hormones as well as improving circulation and digestion, hydrotherapy can alleviate the symptoms of stress and depression that are often associated with infertility and which can negatively affect your chances of getting pregnant. In addition, increased blood circulation due to hydrotherapy treatment can help stimulate the reproductive system and improve fertility health.<sup>14</sup>

**Hydrotherapy Techniques: 14**

Hot Air Baths/Saunas or the Turkish Bath	This technique usually involves two chambers of relatively high and low temperatures (hot and cold) that stimulate blood circulation to the surface of the skin. This is then followed by a general bath (such as showering or soaking) which can include soaping and shampooing.
Local Baths	These are baths that stimulate certain parts of the body. A sitz bath will soak only the buttocks and thighs of the body in hot and cold water. Other local baths include spinal, foot and head baths.
Compresses	In which towels are soaked in hot and cold water allowing water to evaporate from the skin after exposure.
Warm Water Baths	This involves soaking in water for up to 30 minutes and can incorporate epsom salts, mineral mud, aromatherapy oils, ginger, moor mud, and dead sea salts.
Wraps	In which cold, wet sheets are used to wrap an individual while lying down. Towels and blankets are then used to cover the individual, allowing the body to warm up until the sheets become dry.

**Table 2: Hydrotherapy Techniques****Drug Therapy:****Medication:****1. Hormone deficiency treatments :**

While drug therapy is a fairly common form of fertility treatment for women, the use of fertility drugs in men is not. In fact, only about 5% of men with a hormone imbalance will be helped by medications. However, when fertility drugs are prescribed to men, it is generally for hormone

imbalance issues. There are a variety of drugs that can be prescribed for male infertility. Just which you receive will depend on the problems you are experiencing.<sup>15</sup>

Gonadotropin	When the hormonal imbalance is the result of disrupted signals between the hypothalamus, pituitary gland and the testes, thereby affecting sperm production, men often receive gonadotropins. This type of therapy is usually very helpful in men. Gonadotropins are commonly used in men who have been diagnosed with unexplained infertility, abnormally low sperm count, or have less than 40% sperm motility. Common gonadotropins used in men include hCG and FSH, both of which are injectable fertility drugs. <sup>15,16</sup>
Anti-estrogen	Testosterone deficiency can often be attributed to a lack of gonadotropins. To help stimulate the release of gonadotropins, men can also receive anti-estrogen fertility drugs. Usual anti-estrogen medications prescribed to men include tamoxifen (Nolvadex) and clomiphene (Clomid). However, the use of anti-estrogens may boost testosterone production in men to above normal levels, which can negatively impact on sperm production. Therefore, men receiving this type of therapy should have their testosterone levels monitored. Moreover, the FDA has not approved the use of Clomid in men nor has it been found to be especially effective. Side effects of clomiphene in men include weight gain or loss, vision problems, skin changes, libido changes and neurological or gastrointestinal disturbances. <sup>17</sup>
Bromocriptine	Men who have an excess of prolactin in their system often experience fertility problems. This is because too much prolactin can lead to a decrease in testosterone as well as abnormal sperm. To help decrease a man's prolactin levels and get his sperm production back on track, bromocriptine is prescribed. <sup>18</sup> To be effective, though, the medication needs to be taken for at least four consecutive weeks. Side effects of bromocriptine use in men can include high blood pressure and worsening of certain mental disorders or liver disorders while older men are more likely to experience confusion, hallucinations and uncontrolled bodily movements. <sup>19</sup>
Testosterone	When a lack of testosterone production, known as hypogonadism, is the cause of your male infertility problems, synthetic testosterone may be prescribed. This type of testosterone works to mimic the natural testosterone produced in men. It can be administered through oral pills, injections or as a transdermal gel or patch. The use of oral testosterone pills is sometimes questioned as they have been associated with elevated liver function as well as abnormalities in liver scans and biopsy. Injections are generally thought to be safer than oral pills. However, testosterone injections do not always provide a consistent level of hormones causing a man's libido, energy levels and mood to fluctuate. <sup>19</sup> Additionally, many men find the injections to be inconvenient, as they require frequent trips to the fertility specialist.

	Although they can be more expensive, transdermal testosterone applications are proving to be a popular choice for an increasing number of men. Not only are testosterone gels and patches safe and efficient to use, providing a consistent level of hormone in the body, they also have relatively few side effects associated with them. Some men may experience skin irritation at the sight of application, though. <sup>20</sup>
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**Table 3: Hormone deficiency treatments**

## 2. Unexpected Low sperm count:

Some men with relatively mild sperm abnormalities have been treated with clomiphene citrate (tablets) in an attempt to improve the semen. Research showed that Clomid for the male sometimes can improve the sperm count or motility.<sup>21</sup>

## 3. Genetic Defects:

Men with low sperm counts or low motility often ask for treatment to correct the defect. Unfortunately, this is not often possible. Many cases of sperm abnormalities are genetic in origin. Since there is currently no way to correct such genetic defects, we end up working with the couple in other ways to increase their reproductive efficiency. Gene therapy holds promise for the future. If genetic testing is completed now, it may give specific direction for treatment when these gene therapies are available in the future.<sup>22</sup>

### Increase Sperm Health with Homeopathy:

Improving fertility in men is often an important aspect of achieving conception when a couple is having difficulty getting pregnant. Male infertility is often associated with erectile dysfunction, premature ejaculation, low sperm count, obstruction of the epididymis, hydrocele and varicocele. It is important to seek homeopathic constitutional treatment with a qualified homeopathic practitioner for best results. The following remedies are the most widely used by homeopaths to improve fertility in men. Improving fertility in men with homeopathy should be done by looking at your unique situation. The homeopath takes your case and treats you holistically by taking into account the mind and body connection.<sup>23</sup>

Heel Masculine	<b>Heel masculine</b> is a homeopathic composite remedy that contains key important homeopathic remedies that support male reproductive function. It is excellent in addressing orchitis, frequent emissions, nocturnal erections, prostatitis, genital itching, etc.
Graphites	Increased desire for sex but there is a sexual debility that causes to have an aversion to perform sexual intercourse. The erections come too early with no ejaculation. Mentally there is a great inability to make decisions and the person can be very shy. This remedy can also help in genital herpes cases
Sulphur	This remedy helps for involuntary loss of sperm. Itching in the genitals made worse by the warmth of the bed. Ejaculations come before erection is complete. Great weakness and tired feeling that prevents sexual vitality. There can be mental depression and irritability.

Bufo rana	Involuntary or premature ejaculations. Spasms during sex and impotence.
Calcarea carbonica	Premature ejaculations but increased desire for sex. Sexual intercourse is usually followed by weakness and irritability. Cannot be pressured into sex and he has fear of failure or performing (in bed and at work). Nocturnal discharge of spermatic fluids.
Phosphoric acid	Spermatic discharges at night or during stool. Poor sexual powers with not pleasure. Testicles tender and swollen. Eczema of scrotum and swollen glands penis. Herpes
Lycopodium clavatum	Improving fertility in men can often be accomplished by this remedy. It is a great remedy for men who feel self conscious about their performance and who feel deeply the responsibility of having a new family. There is premature impotence in young men with no erectile power due to an inability to perform under pressure. Premature emissions, enlarged prostate, and venereal warts
Baryta carbonica	Hypertrophied prostate and hard testes. Low sex drive and premature impotence.
Caladium	Emissions occur without sexual excitement and are associated with relaxation of the penis.
Berberis vulgaris	Neuralgic pain in the testicles. Burning and stitching in scrotum and prepuce
Selenium metallicum	Sexual thoughts accompanied by dribbling of semen during sleep and loss of sexual power. On attempting intercourse the penis becomes relaxed. Increased desire mentally, but decreased physical ability.
Conium	Increased desire with decreased powers. Sexual nervousness with very weak erections. Effects of suppressed sexual appetites. Testicles enlarged and hard. Mentally, he has not inclination to do things. This remedy has great potential for improving fertility in men
Nux vomica	Easily excited with much desire. Inflammations of the testicles with constricted pain. Weakness and irritability,
Picricum acidum	Abundant loss of semen followed by great exhaustion. Strong erection followed by weakness. Painful erections with pain in testicles and up the spermatic cords. Prostatic hypertrophy.
Cantharis	Continued erection which will not go away. Strong desire and painful erections. Constant desire to urinate and urinary tract infections. In the mental sphere there is a constant attempt to do something but he accomplishes nothing.
Argentum	Erection fails when intercourse is attempted. Lack of desire. Painful coition.

nitricum	Genitals shrivel. Looses an erection because of sudden fixed idea during sex.
Agnus castus	No erections. No desire. The genital organs become relaxed and feel cold. Yellow discharges from the urethra. Production of semen is scarce without real ejaculation.
Moschus	Impotence associated with diabetes. Anxiety with excessive sexual desire. Involuntary loss of spermatic fluids

**Table 4: Homeopathy treatment** <sup>24, 25, 26</sup>

### Obstruction of the epididymis:

The epididymis is a narrow, long, and coiled-like tube where the sperms enter after being formed in the testis and continue their maturation process here. The epididymis can become scarred as a result of infections (epididymitis).<sup>27, 28</sup>

### Thiosinaminum 6C:

This not so known homeopathic remedy is known to dissolve internal scars, strictures and adhesion. Improving fertility in men with this remedy can be accomplished when used in combination with a constitutional remedy selected for your unique situation. Thiosinaminum can help greatly in case of scarring to the epididymis.<sup>27, 28</sup>

### Low sperm count and azoospermia:

The motility and the number of sperm produced by the male are very important in making a woman pregnant. Improving fertility in a man means enhancing the production of good quality sperm. If the sperm count is low the chances of achieving conception is also low. This can be caused by many reasons including stress, unhealthy diet, low minerals and vitamins. The following remedies can help increase low sperm count in cases of lack of semen, thus improving fertility in men. For best results, make sure to consult with a qualified homeopathic practitioner.<sup>29, 30</sup>

Damiana	Sexual debility associated with impotency due to lack of semen.
Conium	Very weak erections, low sexual desire and deficiency of spermatic cells
Yohimbinum	Strong and long lasting erections. Blood flows to the tissue of the penis but the sperm count is very low.
Nuphar luteum	Absence of desire with impotence and low sperm count.
Zincum metallicum	Testicle swollen, drawn up. Erections are violent. Falling of pubic hair. Drawing sensation in the testicles up towards the spermatic cords. Using this remedy can greatly increase the chances of improving fertility.
Selenium metallicum	This remedy helps the body absorb the mineral selenium needed by the body to produce healthy sperm cells and spermatic fluids.

**Table 5: Low sperm count and azoospermia Treatment**

**Hydrocele and Varicocele :**

Improving fertility in man suffering from hydrocele or varicocele can be accomplished with homeopathic medicine. Hydrocele is a build-up of liquid in a fold of the mucus membrane located in the scrotum which is the sac that contains the testicles. Varicocele is a swelling of the scrotum caused by swelling of the veins located at the top of the scrotum. This condition is connected to sterility in men. By selecting the correct remedy that most fits your case, homeopathy can surely help. Here is a list of homeopathic remedies most widely used by homeopathic practitioners when addressing hydrocele and varicocele.<sup>31,32</sup>

Pulsatilla	Varicosities. Varicocele. Inflammation of the testicles with the pain going from the abdomen to the testis. Thick yellow discharge from the urethra. General amelioration from open air. Late stages of gonorrhoea. Feeling of constriction felt in the penis and testicles. Urine passes only in drops with pain and difficult urination. Acute inflammation of the prostatic gland.
Silica	Burning and soreness in the genitals with tendency to have rashes on the inner surface of the thighs. Chronic gonorrhoea. Elephantiasis of scrotum. Nocturnal discharges of spermatic fluids. Hydrocele
Aurum metallicum	Painful and swollen testicles. Chronic indurations of testicles. Violent erections. Hydrocele. Atrophy of testicles
Hamamelis	This remedy is great for venous congestion. Varicocele. Pain in testis. Testicles enlarged, hot and painful. Inflammation of the epididymis. Pain in the spermatic cords running down the testicles. Also Hamamelis lotion can be applied on the scrotum.
Fluoric acidum	Swollen scrotum from varicocele. High sex drive with erections at night during sleep. Burning sensation in the urethra. Improving fertility with this remedy can be achieved because it helps reduce the swelling caused by the varicose
Ferrum phos 6X (Tissue salt)	First stage of inflammation. Heat, redness and swelling of the scrotum.
Plumbum metallicum	Loss of sexual powers. Varicocele with feeling to testicles drawn up and feeling of constriction.
Rhododendron	Swollen testicles worse left side with a drawing sensation. Inflammation of the testicles. Hydrocele.
Arnica montana	Varicocele after an injury with soreness, bruising venous stasis and relaxed blood vessels.

**Table 6: Hydrocele and Varicocele Treatment.****Vitamins that may be helpful:**

Vitamin C	Protects sperm from oxidative damage. Supplementing vitamin C improves the quality of sperm in smokers. When sperm stick together (a condition called agglutination), fertility is reduced. Vitamin C reduces sperm agglutination, <sup>33</sup> and supplementation with 200-1,000 mg per day increased the fertility of men with this condition in a controlled study. <sup>34</sup> Many doctors recommend 1 gram
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	of vitamin C per day for infertile men, particularly those diagnosed with sperm agglutination. However, a double-blind trial studying the effects of combined vitamin C and vitamin E supplementation found no improvements in semen quality among men with low sperm motility. <sup>35</sup>
Zinc	Deficiency leads to reduced numbers of sperm and impotence in men. The correlation between blood levels of zinc and sperm quality remains controversial. Infertile men have been reported to have lower levels of zinc in their semen, than do men with normal fertility. Similarly, men with normal sperm density tend to have higher amounts of zinc in their semen, than do men with low sperm counts. However, other studies have found that a high concentration of zinc in the semen is related to decreased sperm motility in infertile men. A few studies have shown that oral zinc supplementation improves both sperm count <sup>36</sup> motility, and the physical characteristics of sperm in some groups of infertile men. For infertile men with low semen zinc levels, a preliminary trial found that zinc supplements (240 mg per day) increased sperm counts and possibly contributed to successful impregnation by 3 of the 11 men. <sup>37</sup> However, these studies all included small numbers of volunteers, and thus the impact of their conclusions is limited. In a controlled trial, 100 men with low sperm motility received either 57 mg of zinc twice daily or a placebo. After three months, there was significant improvement in sperm quality, sperm count, sperm motility, and fertilizing capacity of the sperm. The ideal amount of supplemental zinc remains unknown, but some doctors recommend 30 mg two times per day. Long-term zinc supplementation requires 1-2 mg of copper per day to prevent copper deficiency. <sup>38</sup>
Arginine, an amino acid	Found in many foods, is needed to produce sperm. Research, most of which is preliminary shows that several months of L-arginine supplementation increases sperm count, quality, <sup>39</sup> and fertility. However, when the initial sperm count was extremely low (such as less than 10 million per ml), <sup>40</sup> L-arginine supplementation produced little or no benefit. While some pregnancies have been attributed to arginine supplementation in preliminary reports, no controlled research has confirmed these claims. For infertile men with sperm counts greater than 10 million per milliliter, many doctors recommend up to 4 grams of L-arginine per day for several months. <sup>41</sup>
Selenium	(100 mcg per day for three months) significantly increased sperm motility, but had no effect on sperm count. Eleven percent of 46 men receiving selenium achieved paternity, compared with none of 18 men receiving a placebo. <sup>42</sup>
Vitamin B12	Is needed to maintain fertility. Vitamin B12 injections have increased sperm counts for men with low numbers of sperm. These results have been duplicated in double-blind research. <sup>43</sup> In one study, a group of infertile men were given oral vitamin B12 supplements (1,500 mcg per day of methylcobalamin) for 2 to 13 months. Approximately 60% of those taking the supplement experienced improved sperm counts. However, controlled trials are needed to confirm these preliminary results. Men seeking vitamin B12 injections should consult a physician. <sup>44</sup>

L-carnitine	Is a substance made in the body and also found in supplements and some foods (such as meat). It appears to be necessary for normal functioning of sperm cells. In preliminary studies, supplementing with 3-4 grams per day for four months helped to normalize sperm motility in men with low sperm quality. While the majority of clinical trials have used L-carnitine, one preliminary trial found that acetylcarnitine (4 grams per day) may also prove useful for treatment of male infertility caused by low quantities of immobile sperm. <sup>45</sup>
Coenzyme Q10	CoQ10) is a nutrient used by the body in the production of energy. While its exact role in the formation of sperm is unknown, there is evidence that as little as 10 mg per day (over a two-week period) will increase sperm count and motility. In one study, men with low sperm counts were given CoQ10 (60 mg per day for about three months). No significant change was noted in most sperm parameters, but a significant improvement was noted in <i>in-vitro</i> fertilization rates. <sup>46</sup>
Vitamin E	Deficiency in animals leads to infertility. In a preliminary human trial, 100-200 IU of vitamin E given daily to both partners of infertile couples led to a significant increase in fertility. Vitamin E supplementation may enhance fertility by decreasing free-radical damage to sperm cells. In another preliminary study, men with low fertilization rates in previous attempts at <i>in vitro</i> fertilization were given 200 IU of vitamin E per day for three months. <sup>47</sup> After one month of supplementation, fertilization rates increased significantly, and the amount of oxidative stress on sperm cells decreased. However, the evidence in favor of vitamin E remains preliminary. A review of research on vitamin E for male infertility concluded that there is no justification for its use in treating this condition. Controlled trials are needed to validate these promising preliminary findings. <sup>48</sup>
Calcium	Is a key regulator of human sperm function? The concentration of calcium in semen determines sperm motility (i.e., the ability of sperm to move spontaneously). However, calcium deficiency has not been confirmed as a cause of male infertility nor is there any evidence that calcium supplementation improves male infertility. <sup>49</sup>
Proxceed	Is a new nutritional supplement that may improve sperm health and fertility rates? The ingredients include L-carnitine and acetylcarnitine, two vitamin-like substances synthesized naturally by the body. These chemicals are involved in cellular metabolism and are found in semen at a rate that is proportionate to the amount of healthy sperm. Proxceed improves sperm count, concentration, and motility when taken orally for about 2 months. Approximately 30% of couples using it experience pregnancy. It is available without a prescription, although couples considering it should consult their physician. <sup>50</sup>

Table 7: Vitamins Treatment

**Herbal Medicine:**

Herbal remedies usually do not have side effects when used appropriately and at suggested doses. Occasionally, an herb at the prescribed dose causes stomach upset or headache. This may reflect the purity of the preparation or added ingredients, such as synthetic binders or

fillers. For this reason, it is recommended that only high-quality products be used. As with all medications, more is not better and overdosing can lead to serious illness and death.<sup>51</sup>

Ginseng (Panaxginseng)	Known as a male tonic (an agent that improves general health) and used to increase testosterone levels and sperm count. Siberian ginseng (Eleutherococcus senticosus) may also be used.
Astragalus (Astragalus membranaceus)	Increases sperm motility.
Sarsaparilla (>Smilax spp.)	Known as a male (and female) tonic.
Saw palmetto (Serenoa repens)	Used for overall male reproductive health.

**Table 8: Herbal Treatment**

**Holistic approaches that may be helpful:**

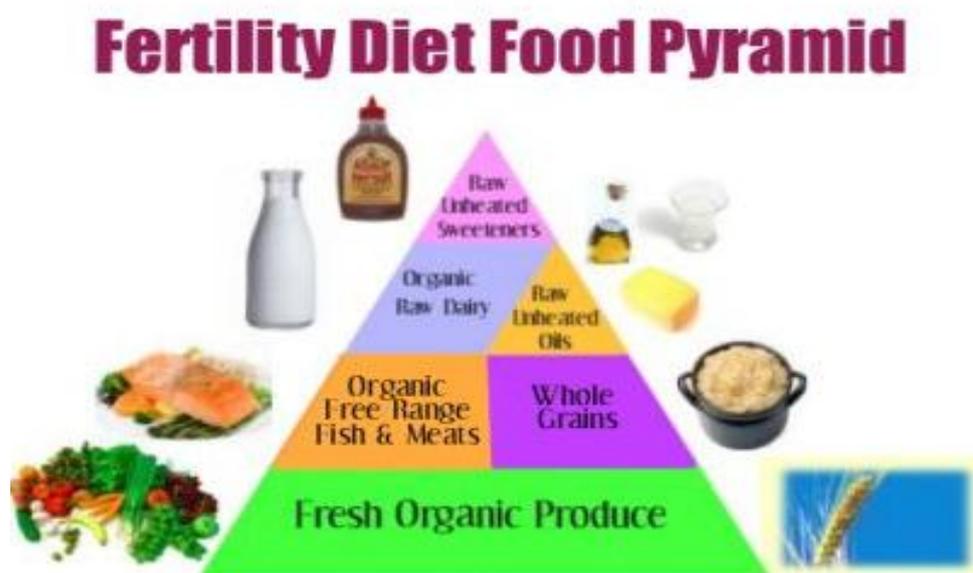
**Acupuncture** may be helpful in the treatment of some cases of male infertility due to impairment of sperm function. A controlled study of men with reduced sperm function found that one measure of sperm function significantly improved in the men treated with acupuncture (two times per week for five weeks) compared to controls.<sup>52</sup> Similar results have been reported in other studies. Nevertheless, double-blind trials are needed to determine conclusively whether acupuncture is a useful treatment for male infertility.<sup>53</sup>

**Fertility Diet:** <sup>54, 55</sup>

Fresh fruits and vegetables	Fruits and vegetables supply the body with minerals, vitamins, enzymes, antioxidants and water. You should eat a wide variety of colors to <i>get all</i> of the different nutrients you need. I like to make a smoothie each day, which provides all of my daily fruit and many of my daily supplements and superfoods. I also strive to eat one salad a day in addition to a dark green vegetable with dinner such as broccoli or swiss chard to up my vegetable and fiber intake.
Protein	Proteins are needed for every function of the body. Protein can come from fish, organic poultry, organic meats, and beans. For this food plan, you will need to eat 40 - 60 grams of protein a day.
Carbohydrates	Carbs are a misjudged villain. The types of carbs we are talking about consuming are whole grains that are in their natural state and are full of fiber. Fiber helps the body metabolize the excess estrogens out of the body. There is a catch though: you will need to eat whole grains together with a protein, and never alone. This prevents the blood sugar spikes that affect fertility and egg attachment.
Organic raw dairy or calcium foods	Getting plenty of calcium is important for an alkaline body (which is a more friendly environment for the sperm and fertilized egg). Calcium

	rich foods include sesame seeds, seaweed, almonds, quinoa, organic dairy, yogurt, cottage cheese, and dark leafy green vegetables.
Fats	Fats are necessary for producing hormonal balance. Fats are not the enemy; they provide essential vitamins not found anywhere else. Be sure to include a variety of fats. This means no low fat diets. Focus on clean fats from clean animals and oils that come from olives, flax, avocados, nuts, seeds, and fish.
Unheated sweeteners	Replace processed sugars with sweeteners such as agave nector or maple syrup. Avoid processed sugars like white sugar and artificial sweeteners like Nutrasweet or anything containing aspartame.

**Table 9: Fertility Diet Treatment.**



**Figure 1: Fertility Diet Food Pyramid**

**Conclusions**

Male infertility and its management is the major task of today’s world. Although the results in the beginning are not satisfactory, the efforts are to be optimistic to rule out male infertility. Many surgical and Non-surgical procedures have limited for the infertility treatment. In the present review we have highlighted the significance, scope and effective therapeutic valves of alternative medicines of natural origin either by SIDDHA (An Indian Remedy), HOMEOPATHIC (German Medicine System) and AYVRAVEDIA (Indian Medicine System) for the excellent results of male infertility treatment. The survey reveals that 65% of the success is obtained by these alternative medicines; stress free environment with balanced diet with alternative medicines can be really useful to treat the male infertility.

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