STI-Related Infertility: How Sexually Transmitted Infections Can Affect Male and Female Fertility

A Comprehensive Guide to Causes, Symptoms, Diagnosis, Prevention, Modern Treatment and the Supportive Role of Unani Medicine

By Dr. Nizamuddin Qasmi
Founder & Chief Physician, Saira Health Care
Focused Practice in Sexual Disorders & Infertility

BUMS – Hamdard University, Delhi
MD, CGO
Certificate in Infertility – MGBIMS, Delhi
Certificate in Urology – London, UK
Masters in Male Infertility – MasterHealthPro (HealthPro)
Integrated Sexual and Reproductive Health – ISRH, UNFPA

Introduction

One of the most important lessons I have learned while working with patients suffering from infertility is that a reproductive problem does not always begin at the time a couple decides to have a child. Sometimes the process starts months or even years earlier—with an infection that caused very few symptoms and was either ignored, incompletely treated or never diagnosed at all.

Sexually transmitted infections, commonly called **STIs**, can affect reproductive health in both women and men. The relationship is particularly well established between untreated **chlamydia or gonorrhoea and pelvic inflammatory disease in women**, which can damage the fallopian tubes and contribute to infertility or ectopic pregnancy. In men, sexually transmitted infections can sometimes produce epididymitis or other genital-tract inflammation, although the overall scientific relationship between STIs and male infertility is more complex and less consistent than it is for tubal infertility in women.

This subject is especially important because infertility is itself extremely common. The World Health Organization defines infertility as failure to achieve pregnancy after **12 months or more of regular unprotected sexual intercourse** and estimates that approximately **one in six people of reproductive age experience infertility during their lifetime**. In November 2025, WHO issued its first global guideline devoted to the prevention, diagnosis and treatment of infertility and specifically highlighted untreated sexually transmitted infections as an important preventable risk factor.

The detailed background material prepared for this article correctly emphasizes that STI-related reproductive problems can involve biological damage as well as psychological and

social consequences. At the same time, some mechanisms proposed in that background material remain theoretical or are not sufficiently established for routine clinical practice. In this article, I therefore separate **well-established clinical evidence** from traditional Unani concepts and emerging research.

My objective is to help patients understand a difficult subject in simple language: **how an infection can affect fertility, how we investigate the damage, what can and cannot be reversed, and where responsible Unani medicine can contribute to an individualized treatment and recovery plan.**

What Is STI-Related Infertility?

STI-related infertility refers to difficulty achieving pregnancy that develops partly or wholly as a consequence of a sexually transmitted infection or the inflammation, scarring or reproductive-tract damage caused by that infection.

It is important to understand that having an STI does **not automatically mean a person will become infertile**. Most people who receive timely diagnosis and appropriate treatment do not develop severe reproductive complications.

The risk becomes more important when infection is untreated, remains undiagnosed for a prolonged period, spreads upward through the reproductive tract, causes repeated episodes of inflammation, or produces anatomical damage.

WHO specifically identifies **blocked fallopian tubes caused by untreated STIs** among the recognized causes of female infertility.

Therefore, when we discuss STI-related infertility, we are not simply talking about an organism being present. We are talking about what the infection may have done to the reproductive system before it was eliminated.

Why Can an STI Cause Damage Without Obvious Symptoms?

This is one of the most difficult aspects of reproductive infections.

Many patients assume that a serious infection must cause severe pain, fever, discharge or obvious genital symptoms. Unfortunately, this is not always true.

Chlamydia frequently causes no symptoms. Gonorrhoea can also be asymptomatic, particularly in women. WHO states that the majority of common sexually transmitted infections may be asymptomatic.

This creates what I describe to patients as a **silent window of damage**.

A woman may have no severe symptoms while low-grade inflammation is developing within the cervix, uterus or fallopian tubes. A man may initially have mild urethritis and later develop epididymal inflammation. By the time fertility is investigated years later, the original infection may no longer be detectable, but structural or functional consequences can remain.

This is why infertility assessment sometimes requires us to look beyond the patient's current symptoms and review their **past reproductive and infection history**.

The Female Reproductive Tract: Why Chlamydia and Gonorrhoea Matter

The connection between sexually transmitted infection and infertility is strongest and best established in women.

Normally, sperm travel through the cervix and uterus into a fallopian tube, where fertilization usually occurs. The fertilized egg then travels through the tube toward the uterus.

For conception to occur naturally, this pathway needs to remain sufficiently open and functional.

When bacteria such as *Chlamydia trachomatis* or *Neisseria gonorrhoeae* ascend from the cervix into the upper reproductive organs, they can cause **pelvic inflammatory disease**, commonly abbreviated as PID.

CDC describes PID as an infection involving female reproductive organs and recognizes untreated chlamydia and gonorrhoea as important causes.

What Is Pelvic Inflammatory Disease?

PID is not a single-organ disease. It describes infection and inflammation affecting one or more structures of the upper female reproductive tract.

Inflammation may involve the uterus, fallopian tubes and surrounding pelvic tissues.

Some women develop fever, significant lower abdominal pain, abnormal discharge or painful intercourse. Others have only mild symptoms.

CDC specifically warns that even **mild or unrecognized PID can place reproductive health at risk**.

This is why I do not advise women to wait for severe symptoms before seeking evaluation after a significant STI exposure.

How Does PID Affect the Fallopian Tubes?

The body's immune response is designed to control infection, but inflammation can also damage delicate tissues.

Within the fallopian tube are specialized structures that help transport the egg toward the uterus. Repeated or severe inflammation can damage the tubal lining and eventually lead to adhesions or scar tissue.

The result may be partial narrowing or complete blockage.

If both fallopian tubes become severely obstructed, sperm may be unable to reach the egg naturally.

If a damaged tube remains partly open, fertilization may still occur, but transport of the fertilized egg may be impaired. This is one reason tubal damage increases the risk of **ectopic pregnancy**, in which pregnancy develops outside the uterine cavity, most commonly inside a fallopian tube.

CDC reports that PID can cause scar tissue blocking the fallopian tubes, ectopic pregnancy, infertility and long-term pelvic pain. It also notes that approximately **one in eight women with a history of PID experience difficulty becoming pregnant**.

Chlamydia and Female Infertility

Chlamydia deserves particular attention because it is frequently silent.

WHO describes chlamydia as a preventable and curable bacterial STI. However, if it remains untreated, women may develop PID and subsequently face increased risks of infertility and ectopic pregnancy.

A woman may therefore say to me:

“Doctor, I never had a serious infection. How could my tubes become blocked?”

Sometimes the answer is that the infection did not behave like a dramatic acute illness. It may have caused mild or unnoticed inflammation.

This is precisely why prevention and early testing are so important.

Gonorrhoea and Female Infertility

Gonorrhoea is caused by *Neisseria gonorrhoeae*.

Untreated gonorrhoea can also lead to PID, tubal damage, ectopic pregnancy and infertility. WHO recognizes these reproductive complications, and CDC similarly identifies permanent reproductive consequences when infection progresses untreated.

The additional modern concern with gonorrhoea is **antimicrobial resistance**.

The organism has gradually developed resistance to multiple classes of antibiotics, which makes proper diagnosis, correct treatment and avoidance of unnecessary antibiotic use extremely important.

Patients should therefore not repeatedly purchase antibiotics themselves whenever discharge or burning occurs.

Can Treating the Infection Reopen Blocked Fallopian Tubes?

This is an extremely important distinction.

Antibiotics can treat the active bacterial infection, but they do not reliably reverse established scar tissue.

If PID is recognized early, appropriate antimicrobial treatment can stop the infection and reduce the risk of further damage. But once significant tubal fibrosis, adhesions or obstruction have developed, simply taking additional antibiotics cannot restore normal anatomy.

CDC's PID guideline emphasizes early broad-spectrum antimicrobial treatment because preventing long-term reproductive damage is an important objective, while acknowledging that long-term outcomes such as tubal infertility cannot always be predicted or reversed by antimicrobial therapy.

This is why early diagnosis is so valuable: **preventing structural damage is often much easier than repairing it afterward.**

How Is Tubal Damage Investigated?

When infertility is suspected and a woman's history suggests possible tubal disease, the clinician may assess whether the fallopian tubes are open.

Depending on the patient's circumstances and local facilities, evaluation may include imaging techniques designed to assess tubal patency and pelvic anatomy.

The exact test should be selected according to the woman's age, infertility duration, previous pregnancies, infection history, menstrual and ovulatory status, partner findings and other clinical factors.

WHO's 2025 infertility guideline provides a structured evidence-based pathway for diagnosing infertility and managing tubal disease rather than using one test or treatment for every couple.

What If Significant Tubal Damage Has Already Occurred?

Treatment depends on the nature and location of the damage.

Some patients may be considered for surgical treatment, while others may benefit more from **in vitro fertilization (IVF)** because IVF allows fertilization to occur outside the fallopian tubes and therefore bypasses severe tubal obstruction.

The WHO's latest infertility guidance emphasizes progressively selecting fertility treatments according to diagnosis, patient circumstances and preferences, from simpler fertility management to interventions such as intrauterine insemination or IVF where indicated.

A responsible infertility physician should therefore never promise that every blocked tube can be reopened with medicines.

The first responsibility is to determine **what type of damage actually exists**.

STI-Related Infertility in Men

The relationship between sexually transmitted infections and male infertility requires a more nuanced explanation.

It is certainly possible for reproductive-tract infections to affect male fertility. Chlamydia and gonorrhoea can cause epididymitis, and severe bilateral epididymal inflammation can potentially produce scarring or obstruction.

However, current European Association of Urology guidance notes that scientific studies have not established an equally strong general association between all STIs and male infertility. Evidence is variable, and not every genital infection produces measurable fertility impairment.

This is an important correction to overly broad claims that an STI automatically causes poor sperm count, motility or DNA fragmentation in every infected man.

Epididymitis and Fertility

The **epididymis** is a highly specialized structure attached to the testicle where sperm undergo important stages of maturation and transport.

Chlamydia and gonorrhoea are recognized causes of epididymitis in sexually active men.

A patient may experience one-sided scrotal pain, tenderness and swelling.

Most men recover appropriately with timely treatment. However, severe disease—particularly when both sides are involved—can occasionally result in scarring of the epididymal ducts, reduced sperm output or obstructive problems.

CDC identifies prevention of infertility and chronic pain among the reasons for treating sexually transmitted epididymitis promptly.

EAU guidance similarly notes that bilateral epididymitis can potentially result in epididymal duct stenosis, reduced sperm count or azoospermia and therefore deserves appropriate follow-up.

Can Chlamydia Affect Sperm Quality?

Some studies have found associations between genital infection or inflammation and altered semen parameters, including sperm motility or inflammatory markers.

However, patients should understand the difference between an **association in research** and proof that an infection is the sole cause of a man's infertility.

The current EAU guideline states that infection of the male urogenital tract is a potentially treatable cause of male infertility but that the evidence linking asymptomatic infections and sperm quality is sometimes contradictory. Antibiotic treatment may improve sperm quality in some circumstances, yet this has not been proven to increase natural conception rates consistently.

Therefore, a man with infertility should not be given repeated antimicrobial treatment merely because white blood cells or an uncertain organism were found once in semen.

Diagnosis must be individualized.

Infection, Inflammation and Oxidative Stress

Inflammation in the reproductive tract may increase white blood cells and inflammatory mediators in semen.

Researchers have investigated whether this can increase oxidative stress and subsequently affect sperm membranes, motility or DNA integrity.

This is biologically plausible, but testing and treatment should be evidence-based.

Current EAU guidance does **not recommend routine reactive oxygen species testing in every infertile man**, and sperm DNA fragmentation testing is generally reserved for selected clinical situations rather than being used indiscriminately.

This is an important principle at Saira Health Care as well: **more tests do not automatically mean better treatment. The right test is more valuable than many unnecessary tests.**

What About HPV and Male Fertility?

The source material supplied for this article discusses research into possible associations between HPV in semen and changes in sperm count, motility or morphology.

This is an evolving area of research.

HPV DNA has been detected in semen, and some studies have reported associations with semen abnormalities or reproductive outcomes. However, current clinical evidence is not strong enough to say that HPV is a universal or direct cause of male infertility in the way untreated chlamydial or gonococcal PID is an established cause of tubal infertility in women.

I therefore explain this to patients as an **area of ongoing research rather than a settled diagnosis**.

Prostatitis and Male Reproductive Health

Patients with chronic prostatitis or other accessory gland inflammation may experience pelvic discomfort, painful ejaculation, urinary symptoms or altered semen findings.

However, prostatitis is not synonymous with an STI.

Some cases are bacterial; many chronic pelvic pain syndromes do not have a clearly identified infectious cause.

EAU guidance notes that treating confirmed bacterial male accessory gland infection can eradicate the organism and may improve semen quality, but does not necessarily increase the probability of conception.

This is why repeated antibiotics for chronic pelvic pain without evidence of bacterial infection are not appropriate.

Can STIs Cause Azoospermia?

Azoospermia means that no sperm are detected in the ejaculate.

There are many possible causes.

In rare situations, severe bilateral inflammation or scarring of reproductive ducts following infection may contribute to **obstructive azoospermia**.

But infection is only one possibility. Genetic abnormalities, congenital absence of the vas deferens, hormonal disease, testicular failure and previous surgery are among many other causes.

Any man diagnosed with azoospermia requires a structured fertility evaluation rather than assuming the problem resulted from a previous STI.

The Importance of Semen Analysis

Semen analysis remains one of the basic investigations in male infertility.

It evaluates parameters such as semen volume, sperm concentration, total sperm number, motility and morphology.

However, one semen report does not tell the whole story.

EAU recommends that both partners in an infertile couple be evaluated and that men undergo a medical and reproductive history, examination and semen analysis. If the first semen analysis is abnormal, repeat testing is commonly appropriate before drawing major conclusions.

Sperm count, motility or morphology values should also not be interpreted as a simple “fertile versus infertile” switch. Reproductive potential depends on the combination of male and female factors.

Both Partners Must Be Evaluated

One of the most common mistakes in infertility care is to investigate only the woman or only the man.

Modern fertility practice strongly supports a **couple-based approach**.

The current EAU guideline recommends simultaneous investigation of both partners when a couple seeks medical help for infertility.

This principle is central to my own clinical approach.

A man may have an abnormal semen report while his partner also has tubal disease. A woman may have normal tubes but her partner has severe sperm abnormalities. Sometimes both partners are normal on initial testing and infertility remains unexplained.

Therefore, infertility should not become a process of blaming one person.

When Should a Couple Seek Infertility Evaluation?

WHO defines infertility clinically as inability to achieve pregnancy after **12 months or more of regular unprotected sexual intercourse**.

However, earlier evaluation may be appropriate when there is a known reproductive problem—for example, a history of significant PID, bilateral epididymal disease, absent periods, previous reproductive surgery or other major medical concerns.

Age and reproductive history are also important when planning the timing and intensity of evaluation.

The purpose is not to create anxiety but to avoid losing valuable time when a known fertility risk is already present.

Diagnosis of STI-Related Infertility

I do not diagnose “infection-related infertility” simply because a patient once had genital discharge.

The diagnosis is built from the entire clinical picture.

We review previous STI diagnoses and treatment, history of PID, pelvic pain, ectopic pregnancy, genital surgery, epididymitis, testicular swelling and current reproductive symptoms.

Women may need assessment of ovulation, uterine anatomy and fallopian tube patency. Men usually require semen analysis and clinical examination, with hormonal, microbiological, genetic or imaging investigations selected when indicated.

WHO's 2025 guideline provides evidence-based diagnostic pathways for male factors, tubal disease, ovulatory disorders, uterine disorders and unexplained infertility.

The central principle is that **a past infection is one piece of evidence—not the entire diagnosis.**

Treat the Infection First

When an active bacterial STI is present, the first priority is **appropriate pathogen-directed antimicrobial treatment**.

Chlamydia is curable with antibiotics, and early treatment markedly reduces the chance of serious long-term complications.

Gonorrhoea is also curable, although antimicrobial resistance is making treatment increasingly challenging.

PID requires appropriate antimicrobial treatment because delays can increase the opportunity for further reproductive damage.

If an infection requires antibiotics, herbal or Unani supportive treatment should not be used as a substitute.

Partner Treatment and Reinfection

Another major issue is reinfection.

A patient can complete successful treatment and later acquire the same infection again from an untreated partner.

CDC emphasizes partner evaluation in chlamydia and gonorrhoea because partners may remain asymptomatic and pass the infection back.

For fertility preservation, this matters greatly.

Repeated episodes of inflammation may expose reproductive tissues to repeated injury. Treating only one member of a couple can therefore undermine both infection control and fertility protection.

The Psychological Impact of STI-Related Infertility

Infertility is not only a physical diagnosis.

The WHO's 2025 infertility guideline emphasizes that infertility can create anxiety, depression, isolation, stigma and substantial emotional distress and recommends appropriate psychosocial support as part of fertility care.

An STI history can intensify this distress.

Patients may experience guilt, fear of rejection or suspicion between partners. Some men become so anxious about sexual performance or transmission that erections become difficult despite no major structural erectile disorder.

The uploaded clinical background also highlights the interaction between infection-related stigma, relationship anxiety and sexual function.

In my opinion, these problems deserve genuine medical attention. A patient who has been cured of an infection but remains frightened of intimacy has not completely recovered in the broader sense.

Unani Understanding of Reproductive Health

The Unani system of medicine approaches reproductive health through concepts of **Mizaj**, or temperament, and the balance of the four *Akhlat* or humours: *Dam*, *Balgham*, *Safra* and *Sauda*.

Classical Unani physicians described inflammatory conditions affecting the female reproductive tract under terms including **Waram-e-Rahim**, while male reproductive complaints were discussed through concepts such as **Qillat-e-Mani**, **Riqqat-e-Mani** and **Zoaf-e-Bah**. The uploaded background material summarizes these classical frameworks.

These concepts reflect a traditional medical understanding and should not be confused with modern microbiological diagnoses.

Today we know that chlamydia is caused by *C. trachomatis* and gonorrhoea by *N. gonorrhoeae*. Therefore, a modern Unani physician should use traditional concepts for **individualized supportive assessment while simultaneously respecting laboratory diagnosis and established infection treatment**.

Where Unani Medicine Can Be Useful

Unani medicine can be particularly valuable when we use its strengths responsibly.

Its greatest contribution in STI-related fertility care is not claiming to “kill every infection” or magically reopen scarred reproductive ducts. Its real strength lies in **individualization, dietotherapy, attention to constitution, symptom support, convalescence and overall reproductive wellbeing**.

After an infection has been appropriately treated, a patient may still have weakness, altered appetite, anxiety, urinary irritation or reproductive concerns. An individualized Unani approach may be considered to support general recovery, provided that serious structural or infectious causes have been properly assessed.

The Unani principle of **Ilaj-bil-Ghiza**, or therapeutic attention to diet, can also contribute to overall metabolic and reproductive health. Adequate nutrition, healthy body weight, tobacco avoidance and appropriate physical activity are consistent with modern fertility recommendations as well. WHO's first infertility guideline emphasizes healthy diet, exercise and tobacco cessation as part of fertility promotion and prevention.

In this sense, traditional and modern health principles can reinforce one another.

Can Unani Medicine Reverse Fallopian Tube Scarring?

This question deserves an unambiguous answer.

There is currently **no high-quality evidence that an oral herbal or Unani formulation can reliably dissolve established fibrotic blockage of a fallopian tube**.

The uploaded source describes traditional *Muhallil* or resolving therapies for chronic reproductive inflammation. These are important from a historical Unani perspective, but claims that they reverse established tubal fibrosis should not be presented as proven clinical fact.

If substantial tubal obstruction has developed, appropriate fertility investigation is necessary. Depending on the anatomy, surgery or assisted reproductive treatment may be considered.

I believe explaining this honestly strengthens rather than weakens responsible Unani medicine.

Unani Medicine and Male Fertility After Infection

Traditional Unani pharmacology contains numerous *Muqawwi*, *Muwallid-e-Mani* and reproductive tonic formulations.

The uploaded material discusses traditional use of botanicals such as **Asgandh (*Withania somnifera*)**, **Mucuna pruriens** and other reproductive tonics.

Some medicinal plants have antioxidant or endocrine effects that are scientifically interesting and continue to be studied.

However, no fertility herb should be prescribed as though it can automatically correct every low sperm count.

If low sperm concentration is caused by bilateral obstruction, a tonic cannot mechanically reopen the obstruction. If azoospermia is caused by genetic or severe testicular disease, a herbal product cannot replace appropriate andrological assessment.

Unani treatment is most useful when **the cause of the fertility problem has first been correctly understood**.

A Note on Potentially Irritating Traditional Local Treatments

Historical medical texts sometimes describe topical oils or irritant preparations applied to the genital area for sexual weakness.

The uploaded material includes examples of rubefacient ingredients traditionally used for this purpose.

From a modern safety perspective, strongly irritating substances should **not be applied to genital tissue without appropriate professional supervision**, and some traditional ingredients are unsuitable for routine contemporary use.

A responsible Unani approach is not simply to reproduce every historical treatment. Medical practice evolves as safety knowledge improves.

Hijama, Massage and Regimenal Therapy

Unani medicine also includes **Ilaj-bil-Tadbeer**, or regimenal therapy, such as massage and other traditional procedures.

The uploaded source discusses Hijama, Hammam and Dalak within this framework.

These therapies may have roles in relaxation, musculoskeletal wellbeing or other selected indications, but there is insufficient clinical evidence to claim that cupping removes an STI, reopens fallopian tubes or restores sperm production after severe obstructive disease.

If regimenal therapy is considered, it should be presented as **supportive care rather than a replacement for infection eradication or fertility procedures**.

Dr. Nizamuddin Qasmi's Individualized Approach at Saira Health Care

At **Saira Health Care**, I believe STI-related infertility should be treated as a sequence of connected clinical problems rather than with a single medicine.

First, I establish whether infection is still active

The patient may require appropriate STI testing, review of previous reports or referral depending on symptoms and exposure history.

If a bacterial infection is present, effective antimicrobial therapy receives priority.

Next, I determine whether reproductive damage has occurred

For women, this may mean evaluation of ovulation, uterus and fallopian tubes.

For men, it includes semen analysis, clinical examination and additional tests when indicated.

Then, I evaluate both partners

Fertility belongs to a couple, not one individual report.

Whenever possible, both partners should be assessed simultaneously so that valuable months are not spent treating one partner while an important problem in the other remains unidentified. This approach is consistent with current European fertility guidance.

I then consider individualized supportive Unani care

Once urgent infection and structural conditions have been addressed, Unani medicine can be used thoughtfully for constitution, diet, general recovery and selected reproductive concerns.

I do not believe responsible Unani care should delay antibiotics, surgery, IVF or other necessary treatment.

Finally, I follow the patient's reproductive outcome

The objective is not merely to make a report look better.

The real questions are whether the infection has been controlled, whether the reproductive anatomy is functional, whether sperm parameters are appropriately assessed, whether the partner has been evaluated and whether the couple has a realistic path toward conception.

Contribution of Saira Health Care in Sexual Disorders and Infertility

Sexual and reproductive problems are among the most sensitive conditions in healthcare.

Patients often delay consultation because they are embarrassed. Some are given unnecessary medicines for years. Others spend considerable money on treatment without ever receiving a clear explanation of why conception is not occurring.

At **Saira Health Care**, our objective is to make complex sexual and fertility problems understandable to patients while maintaining confidentiality and professional clinical standards.

Our work in sexual disorders and infertility emphasizes careful history, appropriate investigation, partner-based evaluation, reproductive-health education and individualized treatment planning.

Where a patient prefers Unani medicine, we seek to use the system within its appropriate role rather than presenting every traditional treatment as a guaranteed cure.

Where modern antibiotics, imaging, assisted reproductive treatment or specialist intervention is required, I believe patients should be informed openly.

The best treatment is not the treatment belonging to one medical system. It is the treatment most appropriate for the patient's actual condition.

Preventing STI-Related Infertility

The most effective treatment for infection-related infertility is often **preventing the reproductive damage before it occurs**.

Correct and consistent condom use reduces the risk of many sexually transmitted infections. Testing after relevant exposure, timely treatment, and partner management reduce the opportunity for untreated infection to persist.

WHO identifies untreated STIs as a preventable contributor to infertility and specifically recommends greater investment in infertility prevention.

Early treatment of chlamydia and gonorrhoea is especially important because the infections can sometimes progress silently.

Patients should also understand that previous successful treatment does not provide permanent immunity. Reinfection can occur if exposure happens again.

Preconception Health and STI Screening

Couples planning pregnancy often ask whether everyone needs a complete STI panel.

The answer should be individualized.

Testing depends on medical history, previous exposures, symptoms, age, pregnancy status and risk factors. A known history of STI, PID, epididymitis or high-risk exposure deserves particular attention.

The uploaded source advocates broad preconception screening because of the potential connection between infection and fertility. The underlying preventive principle is valuable, but in clinical practice screening should follow current evidence-based recommendations rather than using the same extensive panel indiscriminately for every low-risk person.

What If the Infection Has Been Cured but Pregnancy Still Does Not Occur?

This is a common situation.

Once the organism is eradicated, the infertility may continue because the infection left behind structural damage—or because another fertility problem was present all along.

At this stage, continuing more antibiotics usually does not solve the problem.

A systematic infertility evaluation is required.

WHO's 2025 guidance encourages a progressive treatment pathway based on the diagnosed cause and patient preferences, ranging from fertility counselling to medical or surgical treatment and assisted reproductive technologies when appropriate.

This is why I advise patients not to spend years repeatedly treating a “hidden infection” without objective evidence that one is still present.

Can IVF Help After STI-Related Tubal Damage?

Yes, in selected patients.

When significant bilateral tubal disease prevents sperm and egg from meeting normally, IVF can bypass the fallopian tubes.

Whether IVF is appropriate depends on several factors, including a woman's age, ovarian reserve, uterine health, the severity of tubal disease and the male partner's reproductive findings.

The decision should therefore follow a complete couple-based assessment.

Importantly, needing IVF does not mean previous treatment “failed.” If infection has already produced irreversible anatomical damage, assisted reproduction may simply represent the most effective way to work around that damage.

What About Male Obstruction?

When a man has severe obstructive azoospermia, treatment depends on the location and cause of obstruction.

Some cases may be amenable to surgical reconstruction. In others, sperm can sometimes be retrieved directly for use with assisted reproductive techniques such as intracytoplasmic sperm injection.

This is a highly specialized area, and the appropriate strategy depends on whether sperm production inside the testicle remains adequate.

Therefore, a man with azoospermia should undergo specialist evaluation rather than assuming that increasing “semen-producing medicines” will automatically restore sperm to the ejaculate.

Sexual Function After an STI

Some men develop erectile or ejaculatory concerns following an STI diagnosis even after the infection has been treated.

In many cases, fear plays a major role.

A patient may be worried that sexual activity will transmit infection, that fertility has been permanently lost or that a partner will reject them.

Such anxiety can interfere with arousal and erection.

Treatment should therefore include reassurance where appropriate, confirmation that infection has been adequately treated, management of genuine physical causes and counselling when performance anxiety or stigma is contributing to symptoms.

The emotional component of infertility is increasingly recognized in international guidance. WHO's latest infertility recommendations explicitly call for ongoing psychosocial support because infertility can cause substantial emotional distress and social isolation.

Important Scientific Clarifications

For a disease article intended to meet professional or textbook standards, several distinctions are important.

STI-related female tubal infertility is well established, especially through chlamydia, gonorrhoea and PID. Male reproductive-tract infection can affect fertility, but the overall evidence is more heterogeneous, and it is incorrect to attribute every abnormal semen parameter to infection.

Research into HPV, oxidative stress, sperm DNA fragmentation and other molecular pathways is important but should not automatically be converted into routine clinical claims.

Similarly, the “adaptive sterilization” evolutionary hypothesis discussed in the supplied background document should be considered a **research hypothesis, not an established explanation for human STI-related infertility**.

A textbook-quality article must distinguish between what is biologically plausible, what has been observed in studies and what has actually been proven to improve patient outcomes.

Frequently Asked Questions

Can every STI cause infertility?

No. The risk varies considerably according to the organism, sex of the patient, duration of infection, whether treatment was received and whether reproductive structures became inflamed or scarred.

Which STIs are most strongly associated with female infertility?

Untreated **chlamydia and gonorrhoea** are especially important because they can lead to PID and tubal damage.

Can chlamydia cause infertility without symptoms?

Yes. Chlamydia is frequently asymptomatic, and untreated infection can lead to PID and infertility in women.

Does one episode of PID mean I will become infertile?

No. Many women who have had PID later conceive. However, PID increases the risk of fertility difficulties, particularly when reproductive damage develops. CDC reports that about one in eight women with a history of PID experience difficulty becoming pregnant.

Can antibiotics repair blocked tubes?

No. Antibiotics treat susceptible bacterial infection; they do not reliably reverse established scar tissue.

Can an STI lower sperm count?

Certain infections or associated inflammation can temporarily or, less commonly, persistently affect semen parameters. However, the evidence linking STIs broadly to male infertility is not uniform, and other causes should always be investigated.

Can gonorrhoea or chlamydia cause epididymitis?

Yes. Both organisms are recognized causes of sexually transmitted epididymitis.

Can infection cause azoospermia?

Rarely, severe bilateral reproductive-tract inflammation and subsequent obstruction may contribute to obstructive azoospermia. Many other causes of azoospermia exist, so specialist assessment is essential.

Can Unani medicine treat STI-related infertility?

Unani medicine can have a valuable **supportive and individualized role**, including diet, general health, convalescence and selected reproductive-health concerns. However, bacterial infection still requires appropriate antimicrobial treatment, and established structural damage such as severe tubal obstruction should not be claimed to be reversibly cured by herbal treatment without evidence.

Should both partners be evaluated?

Yes. Modern infertility guidelines support simultaneous evaluation of both partners rather than assuming infertility belongs to only one member of the couple.

Can pregnancy still be achieved after STI-related infertility?

Often, yes. The chances and appropriate treatment depend on the type and severity of reproductive damage, age, semen parameters and the fertility status of both partners. Options may range from natural conception after treatment to surgery or assisted reproductive technologies.

My Final Message to Patients

If you remember only one message from this article, I would like it to be this:

Do not wait for infertility before taking a reproductive infection seriously.

Chlamydia or gonorrhoea may appear to be a temporary infection, but in some patients the inflammation they produce can affect reproductive structures long after the initial symptoms have disappeared.

At the same time, patients should not live in fear. Having an STI does not mean you will necessarily become infertile, and having infertility does not mean an STI must be responsible.

The correct approach is to investigate logically.

First identify and treat active infection. Then assess whether reproductive damage is actually present. Evaluate both partners. Determine whether the problem involves the fallopian tubes, ovulation, uterus, sperm production, sperm transport or another factor. Only then should treatment be planned.

As a Unani physician with a focused practice in **sexual disorders and infertility**, I value the holistic principles of Unani medicine—*Mizaj*, diet, preservation of health, individualized treatment and support during recovery.

But I also believe that modern diagnostic science is indispensable.

An infection that requires antibiotics should receive antibiotics. A severely blocked tube requires proper fertility assessment. A man with azoospermia requires an andrological work-up. A patient struggling emotionally requires empathy and support.

At **Saira Health Care**, my aim is to bring these principles together responsibly: **modern diagnosis, appropriate infection treatment, fertility assessment, and individualized Unani supportive care where it can add genuine value.**

Our goal is not merely to improve a report.

Our goal is to help preserve reproductive health, protect future fertility and guide each patient toward the safest and most realistic path to parenthood.

About Dr. Nizamuddin Qasmi

Dr. Nizamuddin Qasmi
Founder & Chief Physician, Saira Health Care
Focused Practice in Sexual Disorders & Infertility

BUMS – Hamdard University, Delhi
MD, CGO
Certificate in Infertility – MGBIMS, Delhi

Certificate in Urology – London, UK
Masters in Male Infertility – MasterHealthPro (HealthPro)
Integrated Sexual and Reproductive Health – ISRH, UNFPA

Dr. Nizamuddin Qasmi's work at Saira Health Care focuses on sexual disorders and infertility, with an emphasis on confidential consultation, reproductive-health education, appropriate diagnostic evaluation and individualized treatment planning.

Medical Disclaimer

This article is intended for **general education and public awareness** and does not replace individualized consultation, laboratory investigation or treatment by an appropriately qualified healthcare professional.

Active bacterial sexually transmitted infections require appropriate antimicrobial treatment. Unani, herbal or complementary therapies should not be used to delay or replace proven treatment. Established structural reproductive damage—including tubal obstruction or severe male reproductive-tract obstruction—requires appropriate specialist fertility assessment. Treatment decisions should be based on the patient's diagnosis, reproductive goals and the findings of both partners.