

## Infections screening and STD testing before conception



### Why screening before conception matters

Infections screening before conception has two overlapping goals: protecting fertility and reducing risks during pregnancy. Some infections can ascend through the reproductive tract and contribute to pelvic inflammatory disease, tubal scarring, chronic pelvic pain, ectopic pregnancy risk, or subfertility. Others may not affect fertility directly but can increase the risk of miscarriage, preterm birth, congenital infection, neonatal illness, or transmission during birth or breastfeeding, depending on the organism.

The World Health Organization emphasizes that STIs remain common globally and that several major bacterial STIs, including chlamydia, gonorrhoea, syphilis, and trichomoniasis, are curable. The challenge is that symptoms are unreliable: absence of discharge, pain, sores, or fever does not rule out infection. This is one reason screening recommendations are based not only on symptoms but also on age, sexual exposure, pregnancy status, and risk factors.

Preconception timing is valuable because it creates a window for action. If a test is positive, a healthcare professional can discuss appropriate treatment, whether a partner should be tested or treated, when sex or pregnancy attempts can resume, and whether repeat testing is needed. This is also an opportunity

to review broader preconception health, including vaccinations before pregnancy, genetic screening before pregnancy, folic acid use, and chronic condition management.

## **STIs commonly considered before pregnancy**

There is no single universal STI panel that is right for everyone. Instead, clinicians usually consider a combination of recommended routine screening and risk-based testing. Common infections discussed in preconception care include:

**Chlamydia:** Often asymptomatic. Screening is commonly recommended for sexually active women under 25 and for older individuals with risk factors such as a new partner, multiple partners, or a partner with an STI.

**Gonorrhea:** Also frequently silent, especially in cervical, rectal, or throat infections. Testing is often based on age, exposure site, local prevalence, and risk factors.

**Syphilis:** A blood test can identify infection. Untreated syphilis in pregnancy can cause severe fetal and neonatal complications, so identifying it before conception is especially important.

**HIV:** Knowing HIV status before pregnancy allows timely antiretroviral care and planning that can dramatically reduce perinatal transmission risk.

**Hepatitis B:** Screening and vaccination review are important because hepatitis B can be transmitted sexually and perinatally. Newborn prophylaxis is highly effective when maternal infection is known.

**Hepatitis C:** Testing may be considered based on age cohort, risk factors, prior exposure, injection drug use, or local recommendations. Some guidelines support broad screening in pregnancy; preconception testing allows counseling before pregnancy.

**Trichomoniasis:** Testing is usually symptom-based or risk-based, though recommendations vary by population and setting.

**Herpes simplex virus:** Routine blood screening for everyone is not generally approached the same way as chlamydia or HIV screening. A history of genital lesions, partner herpes status, or unclear symptoms should be discussed with a clinician.

Other infections may also be relevant before pregnancy, such as rubella, varicella, tuberculosis, Zika virus exposure, cytomegalovirus counseling in certain settings, or urinary and vaginal infections when symptoms are present.

These are not all classified as STIs, but they may still matter for pregnancy planning.

### **Who should consider STI testing before conception?**

Anyone planning pregnancy can ask for a sexual health review, even in a long-term relationship. Testing may be particularly appropriate if either partner has not been screened recently, has had a new partner since the last test, has multiple partners, has a partner with other partners, has a previous STI, or has symptoms such as genital sores, pelvic pain, abnormal bleeding, urethral discharge, pain with urination, or unusual vaginal discharge.

CDC screening recommendations support routine and risk-based approaches for infections such as chlamydia, gonorrhea, syphilis, HIV, and hepatitis B. For example, sexually active women under 25 are a key group for chlamydia and gonorrhea screening, while people with ongoing risk factors may need testing at older ages or at extragenital sites. Men who have sex with men may need more frequent and site-specific screening, including rectal and pharyngeal testing depending on exposure. People with HIV, people using injection drugs, and people with partners known to have STIs may need broader or repeated screening.

Pregnancy planning can also change the threshold for testing. Some infections that are routinely screened early in pregnancy, such as HIV, syphilis, and hepatitis B, can often be checked before conception if pregnancy is planned. This gives time for counseling and management before the embryo or fetus is exposed. For couples using donor sperm, donor eggs, surrogacy, or fertility treatment, clinics may have specific infectious disease testing requirements.

### **What testing may involve**

STI testing is usually straightforward, but the exact sample depends on the infection and exposure sites. MedlinePlus notes that common STI tests may use urine, blood, genital swabs, or samples from the mouth, throat, rectum, or sores. Many clinics offer self-collected vaginal, rectal, or throat swabs, which can be accurate when collected correctly and may feel more comfortable for some patients.

Urine or vaginal/cervical swab: Often used for nucleic acid amplification

testing for chlamydia and gonorrhea.

Blood sample: Used for HIV, syphilis, hepatitis B, and hepatitis C testing.

Lesion swab: If sores or ulcers are present, a clinician may swab them to test for herpes or other causes.

Extragenital swabs: Throat or rectal swabs may be needed when oral or anal exposure has occurred, because urine or cervical testing can miss infections at those sites.

It is helpful to be candid about exposure sites and timing. Clinicians are trained to ask these questions, and accurate information prevents missed infections. Some tests have window periods, meaning they may not become positive immediately after exposure. If there has been a recent possible exposure, a clinician may recommend initial testing plus repeat testing at a specific interval.

### **If a test is positive: treatment, partners, and timing conception**

A positive STI test can feel emotionally heavy, especially when you are trying to build a family. It may bring up fear, embarrassment, anger, or worries about trust. Medically, however, a positive result is actionable information. Many STIs are treatable, and identifying them before conception is usually safer than discovering them later in pregnancy.

Treatment should always be guided by a qualified healthcare professional, because regimens depend on the organism, pregnancy status, allergies, local resistance patterns, coinfections, and guideline updates. It is also important to avoid self-treating with leftover antibiotics or medications purchased without medical oversight, as this can fail to cure infection, contribute to resistance, or obscure diagnosis.

Partner management is central. If one partner is treated but the other remains infected, reinfection can occur quickly. Your clinician may recommend partner testing, partner treatment, abstaining from sex for a defined period, using condoms or barriers temporarily, or repeat testing. For some infections, such as chlamydia and gonorrhea, retesting after treatment may be recommended to detect reinfection. For syphilis, follow-up blood testing is typically used to monitor response. For HIV or hepatitis, referral to specialized care may be appropriate before pregnancy attempts proceed.

## **Beyond STIs: infection immunity and vaccination review**

Preconception infection care is broader than STD testing. A clinician may review immunity to vaccine-preventable diseases and recommend vaccinations before pregnancy when appropriate. Hepatitis B vaccination is especially relevant to sexual health and pregnancy because it can prevent a chronic viral infection that may be transmitted to partners or infants. Rubella and varicella immunity are also commonly reviewed because live vaccines, when needed, are given before pregnancy rather than during pregnancy.

Depending on medical history and location, additional screening may be discussed. Tuberculosis testing may be relevant for people with exposure risk, immunosuppression, or residence in high-prevalence settings. Travel plans may raise questions about mosquito-borne infections or region-specific risks. Recurrent urinary symptoms, bacterial vaginosis symptoms, or yeast-like symptoms should be evaluated individually rather than assumed to be harmless.

This broader review often fits naturally into a medical checkup before pregnancy. It can be combined with other preconception care topics, such as medication safety, chronic disease optimization, prenatal vitamins, and a personalized testing plan before pregnancy.

## **How to prepare for the appointment**

You do not need to have perfect answers before you ask for testing. Still, a little preparation can make the visit more useful. Consider writing down your last STI test date, any previous infections and treatments, current symptoms, contraception use, partner changes, pregnancy timeline, vaccination records, and any known partner diagnoses. If you feel anxious, it is reasonable to say so at the beginning of the visit.

Questions that may help include: Which STI tests do you recommend for me before conception? Should my partner be tested at the same time? Do I need throat or rectal swabs based on exposure? Are any repeat tests needed because of a recent exposure window? Should we delay trying to conceive until results return or treatment is completed? Do I need hepatitis B vaccination or other immunization updates?

Confidentiality rules vary by country and healthcare setting, but sexual health services are generally designed to provide nonjudgmental care. If cost or privacy is a concern, ask about public health clinics, community sexual health services, home collection options, or bundled preconception visits.