

## Sexually Transmitted Infections (STIs)

Any STI can be present and infectious without symptoms

Type	Viral Infections ( <i>symptoms can be treated</i> )				Non-Viral Infections ( <i>infection can be cured</i> )			
Infection	HPV	Herpes	Hepatitis	HIV	Chlamydia	Gonorrhea	Trichomoniasis	Syphilis
<b>Cause</b>	Human Papilloma Virus (more than 100 strains)	Herpes Simplex Virus (HSV) Types I and II	Hepatitis A Virus (HAV) Hepatitis B Virus (HBV) Hepatitis C Virus (HCV)	Human Immunodeficiency Virus (HIV)	Chlamydia Trachomatis (intracellular organism similar to bacteria)	Neisseria Gonorrhoea (a bacterium)	Protozoan	Treponema Palladium (a spirochete bacterium)
<b>Prevalence*</b>								
<b>Transmission</b>	<ul style="list-style-type: none"> <li>Mucous membrane (oral, vaginal, urethral, anal) exposure to bodily fluids (semen or vaginal fluid) or to infected mucous membranes</li> <li>Skin contact with area of infected skin or mucous membrane (infected area may or may not be noticeable)</li> </ul>				<ul style="list-style-type: none"> <li>Mucous membrane (oral, vaginal, urethral, anal) exposure to bodily fluids (semen or vaginal fluid) or to infected mucous membranes</li> <li>Exposure to blood via broken or abraded skin, needles, razors, or menstrual blood</li> <li>Intimate exposure to contaminated objects</li> <li>Skin contact with area of infected skin or mucous membrane (infected areas may or may not be noticeable)</li> </ul>			
<b>How do you get it?</b>	<ul style="list-style-type: none"> <li>External genital contact, vaginal and anal sex, shared contact with sex toys **</li> </ul>	<ul style="list-style-type: none"> <li>Kissing, external genital contact, oral sex, vaginal and anal sex, shared contact with sex toys **</li> </ul>	<ul style="list-style-type: none"> <li>Oral sex, vaginal and anal sex</li> </ul>	<ul style="list-style-type: none"> <li>Oral sex, vaginal and anal sex</li> </ul>	<ul style="list-style-type: none"> <li>Vaginal and anal sex, shared contact with sex toys**</li> </ul>	<ul style="list-style-type: none"> <li>Oral sex, vaginal and anal sex, shared contact with sex toys**</li> </ul>	<ul style="list-style-type: none"> <li>External genital contact, vaginal and anal sex, shared towels, bathing suits, sex toys, etc. **</li> </ul>	<ul style="list-style-type: none"> <li>Kissing (rare), external genital contact, oral sex, vaginal and anal sex, shared contact with sex toys **</li> </ul>
<b>What does it look like or feel like?</b>	<ul style="list-style-type: none"> <li>Often no symptoms (especially in males)</li> <li>Some strains cause genital, anal or, rarely, oral warts</li> <li>Other strains can cause abnormal pap smears</li> <li>Infection typically resolves spontaneously</li> </ul>	<ul style="list-style-type: none"> <li>Often no symptoms</li> <li>Tingling, burning, or rash</li> <li>Painful genital, oral, anal blisters or ulcers</li> <li>Fever, swollen glands, or painful urination</li> <li>Symptoms usually disappear after 2-3 weeks, but may recur unpredictably</li> </ul>	<ul style="list-style-type: none"> <li>Often no symptoms</li> <li>Flu-like symptoms, fever, fatigue, muscle or joint pain, loss of appetite, nausea, vomiting, or abdominal pain</li> <li>Jaundice (yellowing of skin and eyes) and rarely, liver failure or other serious complications</li> </ul>	<ul style="list-style-type: none"> <li>Often no symptoms for up to 10 years</li> <li>Severe flu-like symptoms within first month of infection can occur</li> <li>Years after initial infection: Swollen glands, fatigue, fever, night sweats, diarrhea, weight loss, depression, opportunistic infections, including rare cancers, pneumonias</li> </ul>	<ul style="list-style-type: none"> <li>Often no symptoms</li> <li>Penile or vaginal discharge</li> <li>Painful urination</li> <li>Abnormal vaginal bleeding or spotting</li> <li>Symptoms may disappear without treatment, but infection continues and transmission to others can occur</li> <li>Abdominal pain or cramping, fever (women)</li> <li>Epididymitis, stricture of urethra (men)</li> <li>Bleeding between periods or after vaginal sex</li> </ul>	<ul style="list-style-type: none"> <li>Often no symptoms</li> <li>Vaginal or penile discharge, irritation, or odor</li> <li>Anal irritation or itching</li> <li>Skin rash, swollen, painful joints</li> </ul>	<ul style="list-style-type: none"> <li>Often no symptoms</li> <li>Chancere (painless open lesion), which heals within 6 weeks of initial infection</li> <li>Skin rash, swollen glands, sores, fever, weeks to months after infection</li> <li>Untreated syphilis may lead to irreversible neurological, or cardiovascular complications</li> </ul>	
<b>Testing and Diagnosis</b>	<ul style="list-style-type: none"> <li>Clinician may detect the infection during an exam</li> <li>Pap smear of cervix or anus can detect clinically-significant HPV infection</li> <li>Colposcopy, biopsy may be needed</li> <li>HPV DNA testing sometimes indicated</li> </ul>	<ul style="list-style-type: none"> <li>Clinician may detect the infection during an exam</li> <li>Testing may be done when lesions are present</li> <li>Blood testing is available, but only useful in certain situations</li> </ul>	<ul style="list-style-type: none"> <li>Blood tests diagnose various stages of infection</li> </ul>	<ul style="list-style-type: none"> <li>Blood test for antibodies reliable as early as 1 week after exposure, may take as long as 4 weeks</li> <li>Multiple diagnostic criteria for variety of illnesses related to HIV can lead to a diagnosis of AIDS (Acquired Immune Deficiency Syndrome)</li> </ul>	<ul style="list-style-type: none"> <li>In some cases, a clinician may detect the infection during an exam</li> <li>Cervical smear or vaginal swab</li> <li>Culture of urethral discharge</li> <li>Throat swab</li> <li>Urine test</li> <li>Anal swab</li> <li>Diagnostic tests after exposure</li> </ul>	<ul style="list-style-type: none"> <li>In some cases, a clinician may detect the infection during an exam, especially if lesions are present</li> <li>Blood test conclusive 3 months after possible infection (some people may test positive as early as 6 weeks)</li> </ul>		
<b>Treatment</b>	<ul style="list-style-type: none"> <li>Warts may be treated by a clinician or with prescription cream</li> <li>Cervical or anal infections may require clinical treatment</li> </ul>	<ul style="list-style-type: none"> <li>Prescription medicines can diminish symptoms and may prevent or lessen severity of recurrent outbreaks</li> </ul>	<ul style="list-style-type: none"> <li>Routine monitoring of liver function</li> <li>Elimination of alcohol</li> <li>Specialized care and treatment</li> </ul>	<ul style="list-style-type: none"> <li>Use of antiviral medications slows the progression of the disease, but is not a cure</li> <li>Various treatments help control HIV-related infections or diseases</li> </ul>	<ul style="list-style-type: none"> <li>For patient: prescription medication specific to infection diagnosed</li> <li>For all current or recent contacts (with or without a positive diagnosis): Concurrent antibiotic prescription medication should be taken simultaneously to prevent re-infection</li> <li>It is important to abstain from intercourse for one week after treatment</li> </ul>			<ul style="list-style-type: none"> <li>Infection can be present for years before symptoms occur</li> <li>Symptoms may not be apparent to patient or clinician</li> <li>Untreated syphilis may be fatal</li> <li>Infants may be infected at birth</li> </ul>
<b>Notes</b>	<ul style="list-style-type: none"> <li>Vaccine is available for men and women</li> <li>Most infections resolve completely within 2 years</li> <li>If untreated, some strains of the virus may cause cancer of the cervix, anus, or penis</li> <li>Close clinical supervision may be needed</li> <li>Infection with one strain does not give immunity to the other strains</li> </ul>	<ul style="list-style-type: none"> <li>Virus cannot be eliminated; however symptoms usually lessen or disappear over time</li> <li>Outbreaks may recur unpredictably</li> <li>Pregnant women should report history of herpes infection to their health-care providers</li> <li>Infection with one strain does not give immunity to the other strain</li> </ul>	<ul style="list-style-type: none"> <li>Higher susceptibility to liver disease after infection</li> <li>May lead to increasingly severe illnesses</li> <li>Vaccines are available for HAV and HBV</li> </ul>	<ul style="list-style-type: none"> <li>The Centers for Disease Control and Prevention currently recommend HIV testing for all sexually active individuals</li> <li>Those at highest risk of contracting HIV should consult with a health care provider about preventive medications (PrEP)</li> </ul>	<ul style="list-style-type: none"> <li>If untreated: Pelvic Inflammatory Disease, epididymitis, prostatitis, and impaired fertility</li> <li>Infants may be infected at birth, causing eye infections, and possibly other complications (pneumonia)</li> <li>Pregnant women should report trichomoniasis infections to their health-care providers</li> <li>All current or recent partners should be treated</li> </ul>	<ul style="list-style-type: none"> <li>All current or recent partners should be treated</li> <li>Re-infection can occur</li> <li>Chlamydia and Gonorrhea should be re-tested in 3 months to detect re-infection</li> </ul>		

To help reduce the spread of STIs, NY State requires that positive test results for chlamydia, HIV, hepatitis, syphilis, and gonorrhea be confidentially reviewed by the local health department. Health department officials may offer assistance with accessing treatment for individuals and their partners. If you or your partner(s) have been diagnosed with an STI, your clinician will advise you about appropriate follow-up. For more information, view the STI fact sheets produced by the Centers for Disease Control and Prevention (CDC) on-line: [cdc.gov/std/healthcomm/fact\\_sheets.htm](http://cdc.gov/std/healthcomm/fact_sheets.htm).

\* Reflects relative prevalence for the U.S. as a whole (ranging from least common to most common). Certain populations/sub-groups have different rates. \*\* Risks associated with sex toys differ based on what they're made of and how they are used. If you have questions, please talk with your health-care provider.

### Other Sexually Transmitted Infections (STIs)

The chart does not list all sexually transmitted infections. It is best to seek medical advice any time you experience any one or more of the following symptoms:

- Discomfort (with or without sexual activity)
- Increased pain or urgency with urination
- A change in your genitals (color, odor, bumps, lesions, itching, or burning)
- Irregular discharge from your genitals

**Note: STIs also infect the throat, anus, thighs, and buttocks. Don't ignore symptoms occurring in these areas.**

### Sexual Health Resources

#### APPOINTMENTS

If you would like routine testing for STIs, and have no symptoms, please make an appointment with a sexual health nurse by phone or online at [myCornellHealth](http://myCornellHealth.com).

If you have symptoms that you feel may be caused by a STI, please make an appointment with a Cornell Health clinician as soon as possible by phone or online at [myCornellHealth](http://myCornellHealth.com).

#### ONLINE

- Cornell Health:
- sexual health: [health.cornell.edu](http://health.cornell.edu)
  - appointments: [myCornellHealth](http://myCornellHealth.com)

- American Social Health Association (ASHA): [ashastd.org](http://ashastd.org)  
 Bedsider: [bedsider.org](http://bedsider.org)  
 Centers for Disease Control and Prevention: [cdc.gov](http://cdc.gov)  
 Gay Men's Health: [gmh.org.uk](http://gmh.org.uk)  
 Intersex Society of America: [isna.org](http://isna.org)  
 Lesbian STD: [depts.washington.edu/wswstd](http://depts.washington.edu/wswstd)  
 Planned Parenthood of America: [plannedparenthood.org](http://plannedparenthood.org)  
 Trans Health: [trans-health.com](http://trans-health.com)

#### PHONE

- Cornell Health:
- appointments and phone consultation: 607-255-5155
  - pharmacy: 607-254-6337 (4-MEDS), 607-255-6976
- Advocacy Center: 607-277-5000  
 (local 24-hour domestic violence and sexual abuse services)

- Planned Parenthood of the Southern Fingerlakes: 607-273-1513  
 Tompkins County Health Department: 607-274-6683

Cornell Health staff members partner with Cornell's LGBT Resource Center, local health agencies, and others to create a supportive environment in which all are students are welcome and provided with the best possible care.

Cornell Health  
 110 Ho Plaza, Ithaca, NY 14853-3101  
 phone: 607-255-5155  
 fax: 607-255-0269  
[health.cornell.edu](http://health.cornell.edu)

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**Health**

## Contraception & Sexually Transmitted Infections (STIs)



110 Ho Plaza  
 607-255-5155  
[health.cornell.edu](http://health.cornell.edu)

This brochure provides information about how to protect yourself against sexually transmitted infections (STIs) and pregnancy. However, sexual health and well-being is much broader than protection. Please talk with our sexual health nurses or clinicians about whatever sexual health questions or concerns you have. The sexual health services provided at Cornell Health include:

- sexual health counseling (education, values clarification, relationship issues, identity, and functioning)
- STI/HIV testing, diagnosis, and treatment
- safer sex supplies, contraception, emergency contraception
- GYN exams, colposcopy, placement/fitting of contraceptives
- pregnancy testing, options counseling, and referrals
- care and support related to rape, sexual harassment, assault

### Contraceptive Methods

The chart, at right, outlines the most common methods of birth control. Our staff can also provide information on a wider range of contraceptive options, including:

- **Abstinence:** The term abstinence, though widely used, can mean different things depending upon your background, culture, spiritual/religious beliefs, or peer group. For some, it means not having sex of any kind; for others it means avoiding only certain kinds of sexual contact. That’s why some “abstinent” people are still at risk for STIs and/or pregnancy. To avoid confusion, hurt feelings, and other unintended consequences, it’s important to understand the risks associated with any sexual behaviors practiced.
- **Emergency Contraception (EC):** If birth control fails, or wasn’t used, it’s still possible to reduce the risk of pregnancy by up to 98% by taking an EC pill or having a non-hormonal IUD placed by a medical clinician. A non-hormonal IUD is the most effective option. Non-prescription EC (e.g., Plan B) is most effective if taken within 72 hours of unprotected vaginal sex, and if used by those with lower body weight/BMI. Note: non-prescription EC is covered by Cornell’s Student Health Plans (SHP, SHP+) at no cost when ordered by a clinician.
- **Other contraceptive methods:** Please talk with one of our medical clinicians if you would like to discuss:
  - referral for pregnancy termination/ abortion
  - pregnancy prevention for mothers during the first months of breast-feeding (Lactational Amenorrhea Method)
  - permanent contraception (vasectomy, tubal ligation)

Have questions? Ready to start a method? Make an appointment with a sexual health nurse or a Primacy Care Provider (PCP).

### Cost

Most health plans, including Cornell’s Student Health Plan (SHP), cover prescription birth control. You may have out-of-pocket costs related to copays for brand name prescription contraception. Coverage for non-prescription birth control is less common, but our pharmacy offers competitive pricing regardless of insurance.

## Common Contraceptive Methods

Type		Short-Acting ( <i>non-hormonal</i> )					Short-Acting ( <i>hormonal</i> )				Long-Acting Reversible ( <i>hormonal &amp; non-hormonal</i> )					
Method		Spermicides	Withdrawal	Sponge	Diaphragm	Fertility-Awareness Method	Condoms	Combined Oral Contraceptives ( <i>the pill</i> )	Progestin Only Pill ( <i>mini pill</i> )	Contraceptive Patch ( <i>the patch</i> )	Contraceptive Ring ( <i>the ring</i> )	Depo Provera ( <i>the shot</i> )	Mirena IUD	Kyleena IUD	Paragard Copper T IUD	Nexplanon
<b>What it is</b>		Chemical-based foams, jellies, or suppositories inserted into the vagina	Removal of the penis from the vagina before ejaculation	Spermicidally-treated barrier inserted into the vagina	A soft, “cup-shaped” silicone barrier, inseted into the vagina; placed to cover the cervix	Calendar-based and symptoms-based methods that involve counting the days of a woman’s menstrual cycle and observing cervical mucous changes	Barrier that is worn prior to genital, anal or oral sexual contact. Commonly made of a latex material, polyurethane. Animal membrane condoms are also available.	Low doses of estrogen and progesterone, taken by mouth	Very low doses of progesterone, taken by mouth	Estrogen and progesterone are absorbed from an adhesive patch worn on the skin	Estrogen and progesterone, absorbed through a flexible plastic ring that is placed into the vagina	An injection of progesterone given every 12 weeks	Small device placed in uterus by a clinician. Contains a very low dose of progesterone that is absorbed mainly in the uterus; has no estrogen	Small device placed in uterus by a clinician. Contains a very low dose of progesterone that is absorbed mainly in the uterus; has no estrogen	Small device placed in the uterus by a clinician. Contains no hormones or other medication	Small plastic rod placed under the skin of the upper arm. Contains a small dose of progesterone, no estrogen
<b>Effectiveness*</b>	<i>Perfect</i>	82%	96%	91%	94%	94%	98%	99.7%	99.5%	99.7%	99.7%	99.7%	99.8%	99.8%	99.4%	99.95%
	<i>Typical</i>	71%	73%	84%	82%	75%	85%	92%	91%	≥92%	≥92%	97%	99.8%	99.8%	99.2%	99.95%
<b>Timing</b>		With each act of intercourse	With each act of intercourse	With each act of intercourse	Before intercourse	Daily monitoring	With each act of intercourse	Same time, daily	Same time, daily	Apply weekly	Monthly or yearly, according to product instructions	Every 12 weeks	Lasts 8 years	Lasts 5 years	Can keep for up to 10 years	Lasts 3 years
<b>How to get it</b>		<ul style="list-style-type: none"> <li>• Drugstore</li> <li>• Pharmacy</li> <li>• Internet</li> </ul>	Practice!	<ul style="list-style-type: none"> <li>• Drugstore</li> <li>• Pharmacy</li> <li>• Internet</li> </ul>	Clinician fitting and prescription; Caya brand “fits most,”but traditional diaphragms must be ordered	Many instructive resources are available; consider this link: <a href="http://tinyurl.com/j47a2e5">tinyurl.com/j47a2e5</a>	<ul style="list-style-type: none"> <li>• Drugstore</li> <li>• Pharmacy</li> <li>• Internet</li> </ul>	Clinician prescription	Clinician prescription	Clinician prescription	Clinician prescription	Clinician prescription and injection	Clinician prescription and placement	Clinician prescription and placement	Clinician prescription and placement	Clinician prescription and placement
<b>Advantages</b>		Easy to obtain	No supplies needed	Easy to obtain	<ul style="list-style-type: none"> <li>• Discreet</li> <li>• Can be inserted before sexual arousal</li> <li>• Non-hormonal</li> </ul>	<ul style="list-style-type: none"> <li>• Encourages awareness of reproductive cycles</li> <li>• Can also be used to help achieve pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>• Protects against many STIs</li> <li>• Easy to obtain</li> </ul>	<ul style="list-style-type: none"> <li>• Can regulate and lighten menstrual bleeding</li> <li>• Can lessen menstrual cramping</li> <li>• Can decrease risk of cancer in ovaries and uterus</li> <li>• Generic options available</li> </ul>	<ul style="list-style-type: none"> <li>• Safe for breast-feeding individuals and those with certain medical conditions</li> <li>• Can decrease menstrual bleeding</li> </ul>	Generic option available	Convenient	<ul style="list-style-type: none"> <li>• Convenient</li> <li>• Generic options available</li> </ul>	<ul style="list-style-type: none"> <li>• Highly convenient</li> <li>• Quickly reversible</li> </ul>	<ul style="list-style-type: none"> <li>• Highly convenient</li> <li>• Quickly reversible</li> </ul>	<ul style="list-style-type: none"> <li>• Highly convenient</li> <li>• Quickly reversible</li> <li>• Cost effective</li> <li>• Hormone-free</li> </ul>	<ul style="list-style-type: none"> <li>• Highly convenient</li> <li>• Quickly reversible</li> </ul>
<b>Disadvantages</b>		Must be used with each act of intercourse	Can be difficult to implement successfully	Must be used with each act of intercourse	<ul style="list-style-type: none"> <li>• Can be tricky to insert</li> <li>• Requires concurrent use of spermicide</li> <li>• Can sometimes be felt by a partner</li> </ul>	Requires constant monitoring and periodic abstinence	<ul style="list-style-type: none"> <li>• Must be used with each act of intercourse</li> <li>• Decreased sensation for person wearing the condom</li> </ul>	<ul style="list-style-type: none"> <li>• May be difficult to remember to take pill on schedule</li> <li>• Can increase risk of gallstones, blood clots, heart attack, and stroke, especially in smokers</li> <li>• Not an option for women with certain medical conditions; please check with your clinician to see if this applies to you</li> </ul>	Requires strict adherence to daily timing	<ul style="list-style-type: none"> <li>• May cause local irritation</li> <li>• Not effective in those over 198 pounds</li> <li>• Can increase risk of gallstones, blood clots, heart attack, and stroke, especially in smokers</li> <li>• Not an option for women with certain medical conditions; please check with your clinician to see if this applies to you</li> </ul>	<ul style="list-style-type: none"> <li>• May be felt by partner</li> <li>• Can increase risk of gallstones, blood clots, heart attack, and stroke, especially in smokers</li> <li>• Not an option for women with certain medical conditions; please check with your clinician to see if this applies to you</li> </ul>	<ul style="list-style-type: none"> <li>• Can decrease bone density over time</li> <li>• Not quickly reversible</li> <li>• Need to arrange for injections every 12 weeks</li> </ul>	<ul style="list-style-type: none"> <li>• Irregular or absent menstrual bleeding</li> <li>• Rarely can cause some hormonal side effects</li> </ul>	<ul style="list-style-type: none"> <li>• Irregular or absent menstrual bleeding</li> <li>• Rarely can cause some hormonal side effects</li> </ul>	May increase menstrual bleeding and cramping	Irregular menstrual bleeding, spotting, or light bleeding
<b>Side Effects</b>		May cause vaginal irritation	All ejaculate must be kept away from a woman’s thighs and genitalia	May cause vaginal irritation	May cause irritation or increase risk of urinary tract infections	Not reliable in women with irregular cycles	May cause irritation; Note: spermicidally-lubricated condoms are not better than plainly-lubricated condoms in preventing pregnancy	<ul style="list-style-type: none"> <li>• Minor side effects include spotting, mood changes, breast tenderness or enlargement, and nausea, but these usually lessen over time</li> <li>• Weight gain has not been shown to occur in most women</li> </ul>	Some individuals experience light bleeding or spotting for the first few months. Some keep their regular periods, and some stop periods completely while using progestin-only pills	<ul style="list-style-type: none"> <li>• Common minor side effects include spotting, mood changes, breast tenderness or enlargement, and nausea, but these usually lessen over time</li> <li>• Weight gain has not been shown to occur in most women</li> </ul>	<ul style="list-style-type: none"> <li>• Common minor side effects include spotting, mood changes, breast tenderness or enlargement, and nausea, but these usually lessen over time</li> <li>• Weight gain has not been shown to occur in most women</li> </ul>	<ul style="list-style-type: none"> <li>• Weight gain, headaches, mood changes can occur</li> <li>• Irregular bleeding during first 3 months</li> <li>• Most users have no periods after a few months of use</li> </ul>	Placement may cause cramping for a few days	Placement may cause cramping for a few days	Placement may cause cramping for a few days	Light, irregular bleeding often decreases over time, but may continue for some women
<b>For more information</b>		Cornell Health Fact Sheet: Non-Hormonal Birth Control Methods	Cornell Health Fact Sheet: Non-Hormonal Birth Control Methods	Cornell Health Fact Sheet: Non-Hormonal Birth Control Methods	Cornell Health Fact Sheet: Non-Hormonal Birth Control Methods	Cornell Health Fact Sheet: Non-Hormonal Birth Control Methods	Cornell Health Fact Sheet: Condoms and Lubricants	Cornell Health Fact Sheet: The Oral Contraceptive Pill	Cornell Health Fact Sheet: The Oral Contraceptive Pill	Cornell Health Fact Sheet: The Contraceptive Patch	Cornell Health Fact Sheet: The Contraceptive Ring	Cornell Health Fact Sheet: Depo Provera	Cornell Health Fact Sheet: The Intrauterine Device	Cornell Health Fact Sheet: The Intrauterine Device	Cornell Health Fact Sheet: The Intrauterine Device	Cornell Health Fact Sheet: Nexplanon

\* If no method of contraception is used, approximately 85% of sexually active couples will conceive in one year (not using contraception is 15% effective). Perfect users reflects individuals who use a method consistently as directed. Typical effectiveness reflects what is seen in the general population.

\*\* For individuals who have previously given birth, these methods are often less effective. Please consult with a clinician for more information.