

URINARY TRACT INFECTION (UTI's)

WHAT IS A URINARY TRACT INFECTION (UTI)?

A UTI is an infection that occurs anywhere in the urinary tract, which includes the kidneys, ureters, bladder, and urethra. Infections can be caused by bacteria that normally live in the colon and rectum. Due to the closeness of the anus and urethra in girls, bacteria from the bowel movements can be wiped into the vagina and urethra if careful hygiene is not followed.

WHAT ARE SYMPTOMS IN YOUNG GIRLS?

Dysuria (painful urination)	Wetting
Abdominal Pain	Back Pain
Urinary Urgency	Dribbling
Urinary Frequency	Fever
Abdominal Pain	Vomiting
Irritability	Low Appetite

- UTI's can present with fever and abdominal pain only*

WHO IS AT RISK?

Most UTI's occur in healthy people. Only 1% of girls can be born with a blockage or obstruction in the urinary tract. Obstruction makes it easier for bacteria to cause infections. Vesicoureteral reflux, a type of obstruction, can be evaluated with an X-ray.

HOW OFTEN DO UTI'S HAPPEN?

In young children (girls 1 to 5 years), UTI's are not common. However, once a girl has one UTI, recurrence is common. (Why? Is the patient predisposed to infection because she continues poor hygiene, does something change in her immune system, is it because the original infection was incorrectly or incompletely treated?) Most recurrences are due to re-infection with a different bacteria, not relapse from the initial infection. Scientists are not sure why this is. For school age girls, 75-80% of white girls, and 50% of black girls will have a recurrence within 3 years of the first infection.

ARE UTI'S DANGEROUS?

Infections involving the urethra or bladder are easily treated. However, infections that advance to the kidneys are associated with more severe symptoms and may require hospitalization for IV antibiotics.

It is very important that UTI's are properly recognized and treated in order to prevent kidney damage and painful symptoms.

HOW ARE UTI'S DIAGNOSED?

A urine sample can be quickly checked to see if a UTI is likely. Chemical strips dipped in the urine can show certain compounds such as nitrites, leukocyte esterase, white or red blood cells, which support the diagnosis of UTI.

A clean catch urine sample (urine collected midstream after cleaning the vulva with disinfectant wipes) can be sent to the lab for culture to see if bacterial organisms grow. This test may take a couple of days. Laboratory studies can also determine which antibiotics will be most effective against the infection.

*Note – Infant girls are not able to produce a clean-catch sample. Doctors may obtain a urine sample by taping a collection bag to the baby or by draining the bladder with a catheter inserted in the urethra.

HOW ARE UTI'S TREATED?

Mild UTI's require 7-10 days of oral antibiotics.

More serious infections, especially in children ages 2mo-2yrs may require hospitalization for rehydration and IV antibiotics.

WHAT ARE WAYS TO PREVENT UTI'S?

- 1.) Protect against vulvovaginitis (see vulvovaginitis handout). If the opening to the urethra becomes irritated, bacteria are more likely to grow.
- 2.) Keep girls well hydrated.
- 3.) Have her urinate at least 3-4 times a day.
- 4.) Avoid stopping and starting midstream.
- 5.) Avoid constipation (drink fluids, eat bran cereal, raw fruits and vegetables).
- 6.) Girls should wear loose cotton underwear during the day and none at bedtime to allow the air to circulate.
- 7.) Girls should urinate after unclean bath water to prevent irritation of the urine on the extra tissues.
- 8.) A fragrance free, non-deodorant soap should be utilized for bathing process.

WHAT ARE UTI SYMPTOMS IN ADOLESCENTS AND WOMEN?

Dysuria (painful urination)	Leaking
Urinary Urgency	Strong-smelling urine
Urinary Frequency	Change in amount of urine
Blood or pus in urine	Painful sexual intercourse
Pain in lower pelvis, back, or side	
Fever, shaking chills, sweats, nausea and vomiting	

WHO IS AT RISK?

Newly sexually active women
Women with a new sexual partner
Pregnant women
Women with a history of diabetes, sickle cell, or kidney stones

HOW OFTEN DO UTI'S HAPPEN?

1 in 5 women will develop a UTI over the course of her lifetime.

WHAT ARE WAYS TO PREVENT UTI'S?

- 1.) Urinate immediately after having sexual intercourse. Urinating is helpful because it flushes out bacteria that may have entered the urethra during intercourse.
- 2.) Use proper hygiene. Wipe front to back.
- 3.) Rinse the vulva between oral sex and vaginal sex. Bacteria from the partner's mouth can make its way into the urethra and trigger an infection.
- 4.) Keep well hydrated with water and avoid "holding it" throughout the day
- 5.) Wear regular cotton underwear. Thong underwear can lead to UTI's by tracking bacteria from the rectal area into the urethra via the vagina.
- 6.) Don't smoke, it lowers your immunity.
- 7.) Avoid condoms coated with nonoxynol-9. This is a spermicide (chemical that kills sperm), which has been shown to kill the "good bacteria" in the vagina. Nonoxynol-9 does not affect the "bad bacteria" that may get swept from the rectum to the vagina. This makes it

easy for the “bad bacteria” to grow and multiply in the vagina and infect the nearby urethra, leading to a UTI.

- 8.) The recent popularity of thong underwear is causing problems for many patients. The thong rubs along the anal area and deposits bacteria near the vagina and urethra.

