Information for Parents
About
Reflux

What is reflux?

In the normal urinary system, two kidneys filter the blood and produce urine, the waste liquid. The urine produced by the kidneys then drains down tubes called ureters (you-re-ters) and into the bladder. At the bottom end of each ureter, a one-way valve normally allows urine to drain easily into the bladder, but prevents urine from moving back up the ureter toward the kidney.

If the one-way valve leaks, urine from the bladder can go backwards up the ureters to the kidney during urination. This is called reflux.

Why does reflux cause urine infections?

It is not uncommon for bacteria (germs which can cause urine infection) to move up through the urine channel to the bladder. Normally, this bacteria is rinsed completely out of the bladder the next time a child urinates. However, in children who have reflux, the bacteria can follow the urine from the bladder backwards up toward the kidneys.

About 1 out of 20 girls will develop a urine infection. Only about 1 in 200 boys will develop a urine infection. One-third of children with urine infections have reflux.

How will I know if my child has reflux?

Children with urine infections need an examination and some testing. These include an ultrasound of the kidneys and bladder as well as a bladder x-ray called a voiding cystourethrogram (VCUG). This important test is performed by putting a catheter through the urine channel into the bladder. Liquid dye is put into the catheter to fill the bladder. When the bladder is filled, x-rays are taken while the child urinates. This is the only test which can show whether reflux is present. This test also helps us to know how severe the reflux is, which is important in determining how it should be managed.
Is reflux dangerous?

If a child has many urine infections, damage to the kidney can occur. However, with proper treatment, this is extremely rare.

How is reflux treated?

The best treatment for reflux depends on how severe the reflux is. Fortunately, most cases of reflux are mild. Eighty-five percent of children with mild reflux will eventually outgrow it. In the meantime, we prevent kidney infections by using a low dose of a safe antibiotic taken once a day.

How long will my child need antibiotics?

In order to prevent damage to the kidney, your child will need antibiotics as long as he or she has reflux. For some children this means taking the antibiotics for a couple of years. Other children will need antibiotics for more than 5 years.

Is it safe for my child to take antibiotics for such a long time?

The antibiotics we use in this situation are very safe and rarely cause side effects. Your child is much safer on the preventive antibiotics than off of the antibiotics and having urine infections.

How will I know when the reflux goes away?

A yearly bladder test called a nuclear voiding cystourethrogram (NVCUG) will tell us when your child grows out of the reflux. Because the reflux doesn’t go away all at once, your child will still need to take the antibiotics and we will repeat the test six months after the first test shows no reflux. If two bladder tests in a row show no reflux, your child can stop taking the antibiotics.

If the reflux goes away, will my child have any more urine infections?

Even though the reflux is gone, sometimes children who have outgrown reflux will still get a bladder infection. For this reason it is important to watch your child for urine infection.

Is surgery ever needed to treat reflux?

Most children will outgrow their reflux and need no surgery. In four situations, surgery may be needed: 1) If a child’s kidneys can’t be protected from infection by using preventive antibiotics. 2) If a child reaches puberty (the time when reflux should have disappeared) and the reflux is still present. 3) If a child will not take the preventive antibiotics. 4) If kidney damage appears despite the preventive antibiotics. For most children a daily dose of antibiotic, periodic urine checks and a yearly exam is all that is needed.

For more information on this topic you are welcome to visit Dr. Hatch’s web site: Genitourinary Development [www.meddean.luc.edu/lumen/meded/urology/guhome.htm]
For more information about Dr. Hatch please visit our web site [www.luhs.org/urology]