

Endoscopic Treatment of Vesicoureteral Reflux **New**

What is endoscopic treatment of vesicoureteral reflux (VUR)?

In endoscopic treatment of VUR, the doctor uses a special viewing device, called a cystoscope, to see inside the bladder. The cystoscope is inserted through the urethra, which is the opening through which urine leaves the body. During the procedure, a small amount of an injectable substance is introduced into the wall of the bladder near the opening of one or both ureter(s) (the tubes that carry urine from the kidney to the bladder). This creates a bulge in the tissue, making it harder for the urine to flow back up the ureter and to the kidneys. There are no incisions made in the abdomen for this procedure.

What is the injectable substance used in this treatment?

Presently, only one injectable material is FDA approved in the United States. The approved substance, Deflux, is a gel-like liquid made of two complex sugars – dextranomer and hyaluronic acid. These sugars are tissue friendly.

How does the injectable substance work?

The injectable substance eventually breaks down, leaving a bulge of tissue in its place. This occurs because the hyaluronic acid part of the injectable substance is a chemical that naturally occurs in the body, and is broken down. Then, the dextranomer part remains, and is slowly replaced by the body's own tissues. So, a little bulge of tissue is formed, which makes it harder for the urine to flow backwards up the ureter and to the kidney. The bulge stays in place permanently and corrects the reflux.

What are the side effects of the injectable substance?

The use of this injectable substance has some potential risks. These include mild bleeding, infection, and blockage of the ureter (if too much substance is injected). About 1 out of 33 children will have some dilation of the ureter by the procedure; this usually resolves without intervention.

How successful is this procedure?

The success of the procedure is dependent on the individual child and on the physician's technique. However, success rates with this technique in the appropriate patient are comparable to that of open surgery. Sometimes more than one treatment is needed to build up a bulge large enough to reduce the child's reflux.

Who are candidates for this procedure?

Any grade of reflux can be treated by Deflux, but based on the success rates, this procedure is recommended for use in children with grade I, grade II, grade III, and possibly grade IV reflux. Deflux is less successful in children with voiding dysfunction (see separate handout). This treatment should not be used in patients who have an active urinary tract infection.

What happens on the day of the procedure?

When you arrive at the hospital, your child will be put to sleep with a general anesthetic for the procedure. The procedure itself takes approximately 30 minutes. However, preparation time for the procedure takes about an hour. After the procedure, additional time will also be required in recovery, during which you will be able to be with your child. Since there are no abdominal incisions made for this procedure, your child can go home on the same day.

What can we expect after the procedure?

After the procedure, there may be some blood in your child's urine. Your child may also experience some mild pain when urinating. These are normal findings. However, if your child has any of the symptoms described below, call our office immediately:

- Fever above 100.5°F
- Vomiting
- Severe pain

A follow-up renal and bladder ultrasound will be needed four to six weeks after the procedure, and a cystogram may possibly be needed in three to six months.

See the next page for contact information.

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Appointments & Location

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