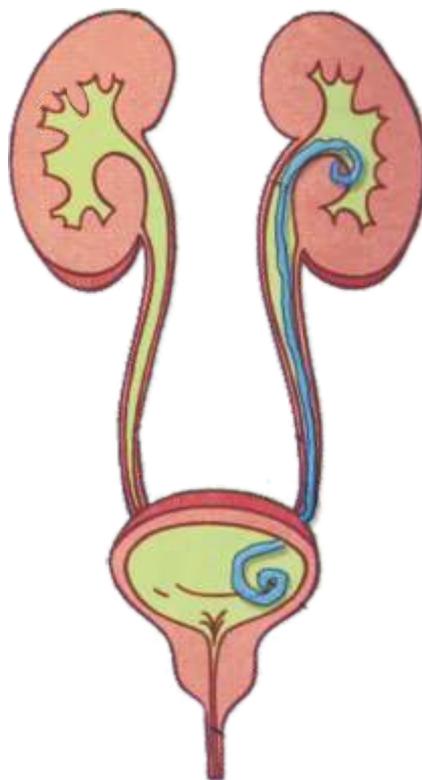


Double - J Stenting

All that you need to know



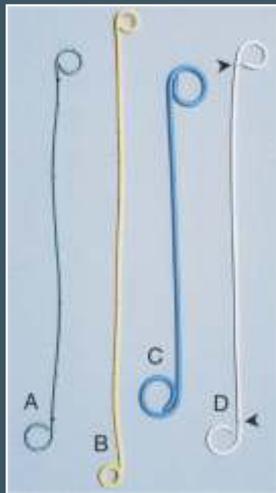
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What is a Double-J Stent?



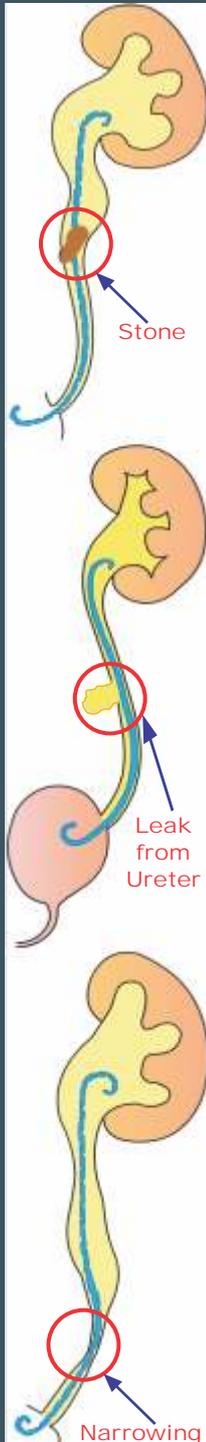
Double J (D.J.) Stent is a fine tube made of silicone coated polyurethane, both the ends of which have a built-in memory to take shape of J or pigtail-hence the name double-J Stent. One coil remains in kidney while the other remains in bladder. The upper coil prevents the down migration of stent out from kidney and lower coil in bladder prevents its up-migration into the ureter. These stents are available with variable lengths and thickness and your doctor will decide what you need.

How does it work?



Once in place, this DJ Stent serves as an internal bypass mechanism to bring down the urine from kidney collecting system into the urinary bladder. Apart from the holes at the ends, there are multiple side holes distributed uniformly along the entire shaft of the stent. The urine enters the stent from the tip hole as well as many side holes along the shaft, travels down its lumen and finally drain in the lumen of urinary bladder. Some urine may however, also flow down by the side of stent.

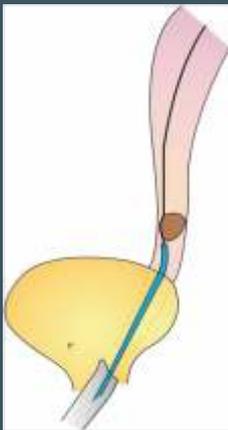
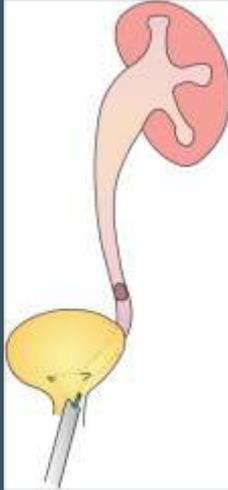
What can be the purpose of putting the D.J. stent inside the kidney & ureter?



Whenever the doctor finds a need to temporarily facilitate the movement of urine from kidney to bladder, by-passing the function of ureter to some extent, a double J stent may be placed in. Such a need may arise to-

- a) **'De-obstruct' a ureter** blocked by a stone or narrowing or any swelling in the wall of ureter or a tumor mass compressing it.
- b) **'Divert' the urine** from the traveling over the surface of ureter, as may sometimes be needed to enhance healing of ureter following an injury or surgery.
- c) **'Demonstrate' the ureter** during complex operations in females like removal of uterus and ovary for advanced cancers.
- d) **'Dilate' the ureter**, as sometimes may be needed to pass ureteroscope up into the kidney.

How is this stent put in?



Mostly this stent is put inside the concerned ureter with the help of cystoscopy.

For this purpose, either a general or regional or even local anaesthesia may be needed depending upon choice of patient and doctor and also the personal preference and experience of the urologist.

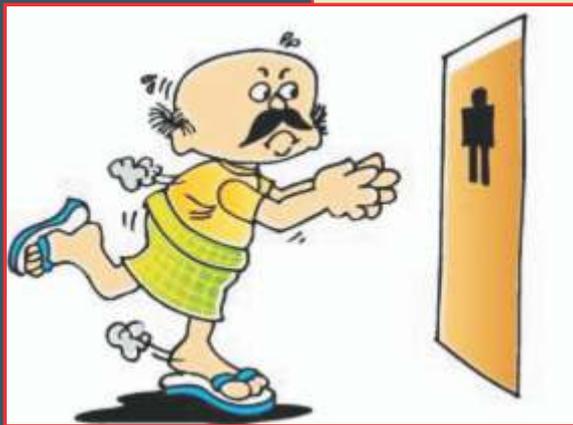
The information on the internal calibre and course of ureter, location of obstructing calculus, and kidney is pre-obtained either by the intravenous pyelogram film or a CT Scan.

The patient is taken up for cystoscopy inside the operation theatre, the ureteric orifice of the concerned ureter is located inside the urinary bladder and through that a fine, ureteric catheter is gently introduced. 5-10 cc of radiographic contrast is injected through this catheter into the lumen of ureter to see its internal structure on image intensifier. A fine, flexible hydrogel coated guide wire is passed inside the ureter by-passing the site of obstruction in ureter. Once it reaches the desired place, a 5 F or 6 F Double J Stent is passed over it.

The entire procedure is watched under image intensifier using X-rays. Once the doctor is satisfied by the location of ends of DJ stent, the guide wire is pulled out and both the ends of DJ coil up as pigtails or J's.

What minor problems you may face as a result of DJ stent?

- ❑ The DJ stent, though made of extremely bio-friendly material, is taken as foreign body by our urinary system. The lower end of stent often touches the trigone, the sensory antenna of urinary bladder, which perceives the state of fullness of urinary bladder. Once this is stimulated, it sends signals to brain to command bladder to urinate. Hence, you may have frequent episodes of urgency i.e. sudden uncontrollable desire to pass urine. As you attempt to pass urine, you may only pass a few drops with some pain at tip of penis. This phenomenon is purely mechanical in origin and once the trigone of your bladder gets acclimatized to it, this urgency frequency settles by itself. Usually it takes 2 to 3 days.





- As a result of aforesaid irritation or sometimes irritation of kidney lining by the upper end of stent, some patients develop haematuria –i.e. they pass blood mixed urine. Mostly this is also mild in severity and is self limiting.



- Sometimes, you may experience a vague, dull flank pain on the side of DJ Stent at the time of passing urine. This is due to reflux of urine from bladder to the kidney through the lumen of stent. The urine so refluxed causes distension of kidney and therefore, some pain.



- Some patients start having fever, sometimes with chills or rigors. This is mostly due to sparking off the pre-existing infection or introduction of fresh infection. All doctors take necessary aseptic precautions at the time of its insertion but still some patients, who are more susceptible, develop it. This infection can easily be controlled by oral or injectable antibiotic medication. In some patients, particularly those who have undergone recent surgical procedure on kidney or ureter, a urethral catheter may have to be put in to prevent reflux

How and when the stent will be removed?

Once the purpose of DJ Stent is over, as is decided by the urologist, it is removed by cystoscopy inside the Operation Theatre.

A stent can be retained inside the body for a variable period of time. One stent may continue to function well upto a period of three months.

IMPORTANT

All patients must discuss and remember the date of removal of DJ Stent. There are instances when patients have forgotten that they are carrying a stent inside their body and present after a few years with urinary infection, broken stent or even calcified and encrusted stent.



Calcified stent



Stent broken into two pieces



Both ends of stent developing stone over them

When should you contact the doctor?



- ❑ If you start running high grade fever with chills/rigors.
- ❑ If you notice excessive blood in urine.
- ❑ If you suddenly start leaking urine.
- ❑ If you notice a part of stent that has extruded outside your urinary passage.
- ❑ If you start experiencing severe pain on the stented side.

Few Important notes.....



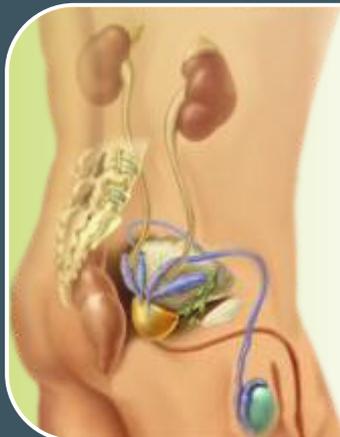
Your catheter removal date...



Report if you pass blood in urine...



Get a latest plain X-ray KUB done before coming for stent removal...



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