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### **INFORMATION SHEET FOR PATIENTS WITH URINARY STONES**

Urinary stones (Kidney / ureter) is a common problem. The patients may present with pain from loin to groin or genitalia or may be incidentally diagnosed during a scan.

#### **RELEVANT TESTS**

Blood urea, creatinine, electrolytes, serum calcium, PTH , vitamin-D3 and urine routine. A 24 hrs urine collection will be done in patients with recurrent stones. Those patients who need 24 hrs urine collection will be given instructions accordingly.

#### **SCANS**

X-ray / Ultrasound (USG) are useful tests. The most reliable test, however, is a Plain CT KUB. In some patients a CT KUB with Contrast will be needed especially in patients with stone who are planned for PCNL.

#### **MANAGEMENT**

- 1) ESWL (Extra-corporeal Shock Wave Lithotripsy) is done either for renal or ureteric stones; the decision will be taken by the doctor. If the patient is on blood thinners like Aspirin, Clopidogrel, Warfarin etc., they should be stopped 7 days prior to the procedure. This procedure is done under Local anaesthesia or sedation as a day-case usually under antibiotic cover.
- 2) FLEXIBLE or RIGID URS / RIRS (Retrograde Intra-Renal Surgery) is done using a flexible or rigid ureteroscope and a laser through the urine pipe. The stone is lasered and the fragments are extracted and a DJ stent is left in place.
- 3) PCNL (Per-Cutaneous NephroLithotomy) is done through a puncture in the back and the stone is broken and extracted. The patient will have a nephrostomy tube in the back with or without a DJ stent.
- 4) Mechanical percussion and inversion: This is usually advised in patients who had undergone ESWL, RIRS and PCNL. In this manoeuvre, the patient is asked to lean forward and downward (angled towards the floor so that the head is at a lower position than the foot) and the attendant is instructed to pat on the patient's back overlying the kidney containing the stone fragments. This is done in order to mobilize small stone fragments from the dependent portions of the kidney so that they can come out in the urine. The technique will be taught by the doctor before the patient leaves. It is best done on empty stomach; each session will last for about 5 to 10 minutes and after the session the patients are advised to take plenty of water so as to encourage the stone fragments to come out in the urine.

#### **GENERAL INSTRUCTIONS ABOUT DJ STENT**

DJ stent is a plastic tube left in the pipe connecting the kidney and the bladder. Patients with stents usually have mild symptoms ranging from a stinging sensation while passing urine, pain in the back while passing urine or occasionally blood in the urine. In the vast majority, DJ stents

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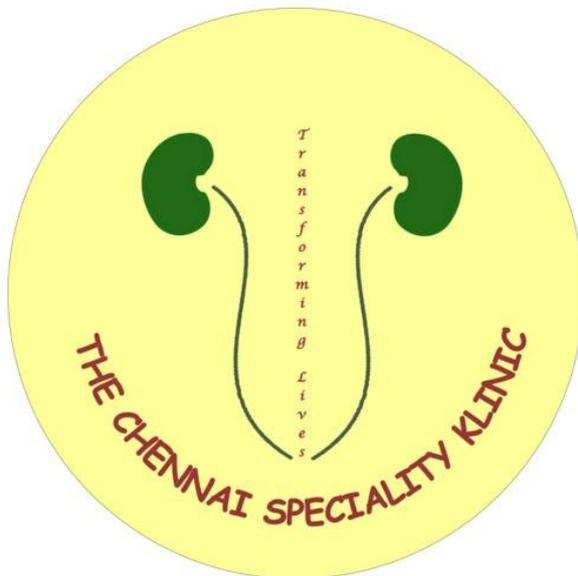
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are temporary in nature and will be removed at an appropriate time decided by your doctor using a flexible cystoscopy as outpatient without any anaesthesia.

**DIET FOR STONE PATIENTS**

- 1) **Water 3 litres/day, 2) Milk 2 cups/day. 3) Salt restriction, 4) Avoid chocolates, soft drinks, fruit juices, 5) Avoid cabbage, spinach, 6) Meat only once in a week.**



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