

Introduction

A nephrectomy is an operation to remove one of the two kidneys that sit at the back of the abdominal cavity. The kidneys make urine by filtering waste products and excess fluid from the blood. A nephrectomy involves removing an entire kidney through an incision in the flank, the side of the body between the ribs and the hip. It is relatively common operation that takes approximately 2-3 hours perform.

Indications

- **Radical nephrectomy:** It is usually done for cancer of the kidney or because of a non-functioning kidney. It is done in an attempt to rid the body of cancer by removing the entire kidney, adrenal gland, protective shell with its surrounding fat and attached vessels.
- **Simple nephrectomy:** For non-functioning kidneys which are either caused by large stones, a lack of blood supply or abnormal kidney structure. With a simple nephrectomy only the kidney itself is taken. It usually done to avoid recurrent infection and the possibility of severe illness because of infection.
- **Partial nephrectomy:** In a small number of cases if a person has poor kidney function or if they only have one kidney, a may be done which means only part of the kidney is removed.

Procedure

A. For simple or radical nephrectomy

1. The operation is performed under general anaesthesia.
2. For simple nephrectomy, it is usually done through a flank incision. However, a few cases when cancer is suspected, depending on where the tumor is, a higher or lower incision may be needed or an incision in the abdomen may be necessary for radical nephrectomy.
3. After the incision is made, the blood supply to the kidney is isolated and tied off; the kidney is removed either with or without its surrounding structures.
4. The wound is closed with staples or stitches.
5. A wound drain may be inserted to drain any wound ooze; this is usually stitched in place and stays in for few days.
6. A catheter (drainage tube which drains urine from the bladder) is also put in to monitor the urine output from the remaining kidney.
7. The catheter usually stays in for 1-2 days or until you are up and about.

B. For partial nephrectomy

1. You may have a stent which is a plastic tube that runs from the kidney to the bladder. This helps the kidney to heal.
2. The stent will be removed about 4-6 weeks after the operation under local anaesthesia.

Pre-operative preparation

1. You will need to sign a consent form and your doctor will explain to you the reason, procedure and possible complications.
2. Pulmonary and cardiac condition need to be optimized before the operation to avoid adverse effect from carbon dioxide absorption.
3. You may be given a pre-medication or antibiotic prophylaxis before the operation.
4. Preparation for cross match may be prescribed by your doctor.
5. Keep fast for 6-8 hours before operation.

Possible risks and complications

A. Peri-operative complications

- Anaesthetic complications and complication caused by pre-existing diseases.
- Significant bleeding requiring blood transfusion and haematoma formation.
- Injury to adjacent organs including major blood vessel, gastrointestinal tract, pancreas, liver and spleen, requiring intervention including operation.
- Entry into the lung cavity requiring insertion of a temporary drainage tube.

B. Post-operative complications

- Systemic life threatening complication including myocardial infarction, cerebral vascular accident, deep vein thrombosis and pulmonary embolism.
- Secondary haemorrhage.
- Wound infection, pneumonia, urinary tract infection.
- Urinary fistula, pancreatic fistula.
- Intestinal obstruction or paralytic ileus.
- Loss of renal function, dialysis may be required to improve your kidney function.
- Bulging of the wound due to damage to the nerves serving the abdominal wall muscles.
- Need of further therapy for cancer.
- The histological abnormality of the kidney may subsequently be shown not to be cancer.
- Mortality (1 -2%).

Post-operative information

A. Hospital care

1. Close monitor to the vital sign, catheterization, drainage, pain control and the bleeding condition of your wound.
2. You may drink on first day and eat on second day after surgery. For transperitoneal cases, it takes longer time to resume diet.
3. The drain and tubes may be removed on second or third day after surgery.
4. You may need to stay in hospital for 4-7 days after surgery.
5. Suture or wound staples usually stay for 7-10 days and removed as instructed by your doctor.

B. Home care after discharge

1. You will be able to eat and drink normally at home.
2. No heavy lifting, straining, gardening for up to 6 weeks or until advised by your doctor.
3. Keep active, gentle exercise such as walking is recommended.
4. Full recovery from surgery usually takes around 6 weeks.
5. Please contact your doctor or go back to hospital if excessive bleeding, collapse, severe pain or fever (body temperature above 38°C or 100°F) occurs.
6. Follow up on schedule as instructed by your doctor.

Remark

The above mentioned procedural information is not exhaustive, other unforeseen complications may occur in special patient groups or different individual. Please contact your physician for further enquiry.

Reference: http://www21.ha.org.hk/smartpatient/tc/operationstests_procedures.html

I acknowledge that the above information concerning my operation/procedure has been explained to me by Dr. _____. I have also been given the opportunity to ask questions and receive adequate explanations concerning my condition and the doctor's treatment plan.

Name: _____

Pt No.: _____ Case No.: _____

Sex/Age: _____ Unit Bed No: _____

Case Reg Date & Time: _____

Attn Dr: _____

Patient / Relative Signature: _____

Patient / Relative Name: _____

Relationship (if any): _____

Date: _____