



## Procedure Information Sheet

### 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. In a small number of cases when cancer is suspected, depending on the tumour location, a higher or lower incision may be needed or an incision in the anterior abdomen may be necessary. In a small number of cases if a person has poor kidney function or if they only have one kidney, a **partial nephrectomy** may be done which means only part of the kidney is removed.

A nephrectomy is usually done for cancer of the kidney or because of a non-functioning kidney. In the case of kidney cancer a **radical nephrectomy** is done. A radical nephrectomy 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.

For non-functioning kidneys, which are either caused by large stones, a lack of blood supply or abnormal kidney structure, a **simple nephrectomy** is done. With a simple nephrectomy only the kidney itself is taken. A simple nephrectomy is usually done to avoid recurrent infection and the possibility of severe illness because of infection.

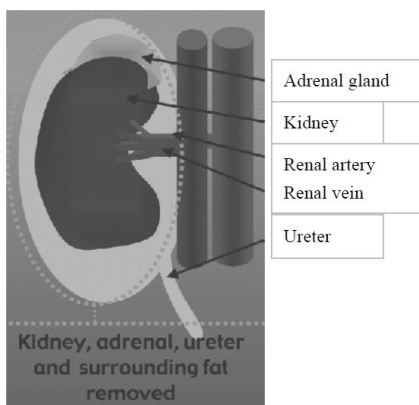
### The Operation / Procedure

1. General anesthesia with muscle relaxation is usually required.
2. After the incision is made, the kidney is freed from surrounding structures. The blood supply to the kidney is isolated and tied off and the kidney is removed with its surrounding fat and attached vessels.
3. Once confirmed haemostasis achieved. The wound is then closed with stitches and staples.
4. A wound drain may be inserted to drain any wound ooze. This is usually stitched in place and stays in for few days.
5. A catheter (drainage tube which drains urine from the bladder) is also put in to monitor the urine output from the remaining kidney. The catheter usually stays in for 1-2 days, or until patient is up and about.
6. If patient has had a partial nephrectomy, may have a stent which is a plastic tube that runs from the kidney to the bladder. This helps the kidney to heal. It will be removed under local anaesthetic about 4-6 weeks after surgery.
7. Nephrectomy is a relatively common operation that takes approximately 2-3 hours to perform.

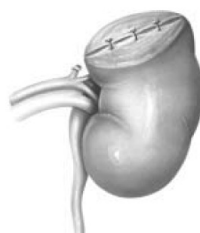
### Before the Operation / Procedure

1. Pulmonary and cardiac condition need to be optimized before operation to avoid adverse effect from carbon dioxide absorption.
2. Patient will be asked not to eat or drink for 6 hours before surgery and, immediately before the operation.
3. Patient may be given a pre-medication by the anaesthetist which will make dry-mouthed and pleasantly sleepy. Preparation such as antibiotic prophylaxis or cross match will be prescribed.
4. Patient should realize that gross morbidity, abnormal body build, prior abdominal surgery can all contribute to greater technical difficulty of the procedure.
5. Prophylaxis against deep vein thrombosis may be indicated for patients at risk.
6. Patient has to sign a consent form.

Radical nephrectomy



Partial nephrectomy



#### Patient's Label

Patient Name: \_\_\_\_\_  
Hospital No: \_\_\_\_\_  
Episode No: \_\_\_\_\_



### After the Operation / Procedure

1. Postoperative care such as need for fasting, monitoring, analgesics and sedation, catheterization, drainage, antibiotics cover, blood transfusion and fluid replacement will be prescribed.
2. There may be slight bleeding at wound.
3. In general, patient can drink on first day and eat on second day after surgery. Usually by the second or third day after surgery, the drains and tubes have been removed.
4. Patient may need to stay in hospital for 4 to 7 days after surgery. All the sutures and wound staples usually stay in for 7 to 10 days.
5. Patient will be given instruction for removal of skin sutures if required.
6. Patient will be discharged when considered appropriate. Follow instruction for follow up given upon discharge.
7. Full recovery from surgery usually takes around 6 weeks. Keep active, gentle exercise such as walking is recommended. Patient will be able to eat and drink normally at home.
8. No heavy lifting, straining, gardening for up to 6 weeks or until advised by doctor.
9. If serious events develop after discharge, such as increase in redness or heat around the wound, excessive bleeding or severe pain, patient should contact attending doctor or come back to hospital for consultation.

### Risk and Complication

In addition to complications associated with standard open operation, nephrectomy has additional potential risks:

#### Peri-operative

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

#### Post-operative

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

This list is not exhaustive and rare complications cannot be listed.

### Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

### Reference

Smart patient website by Hospital Authority: Nephrectomy (2018)

<b>Patient's Label</b>	
Patient Name:	_____
Hospital No:	_____
Episode No:	_____

Patient's Signature: \_\_\_\_\_ Date: \_\_\_\_\_