Fasting should commence at least 6 hours before your surgery. You may be advised to withhold other medications such as your diabetes and high blood pressure medicines while you are fasting. Please let us know of any known allergies towards medications.

#### 3. Arrival to UMMC

You will need to be admitted one day before the surgery. However, you may be advised to be admitted earlier depending on your medical conditions. The registration counter is located on the 1st floor of Menara Selatan. From there, you will be brought up to the ward.

Pre-operative investigations will be carried out upon admission and this may include blood taking, urine sampling, ECG and X-ray.

You will be seen by the urology and anesthesiology teams. You may be asked to purchase equipment necessary for the surgery, eg incentive spirometry, pneumatic calf-pump, endobag.

In UMMC, we will usually advice our patient to start practicing breathing exercises and using of incentive spirometry to aid on your post operative recovery.

#### G. Aftercare and recovery

Immediately after surgery, your health care team will carefully watch your blood pressure, electrolytes and fluid balance.

These body functions are controlled in part by the kidneys. You will most likely have a urinary catheter in your bladder for a few days during your recovery. You may have discomfort and numbness near the incision area. Pain relievers are given after the surgical procedure and during the recovery period as needed.

Although deep breathing and coughing may be painful because the incision is close to the diaphragm, breathing exercises are important to prevent pneumonia.

You will probably remain in the hospital for 1 to 7 days, depending on the method of surgery used.

You will be encouraged to return to light activities as soon as you feel up to it. Strenuous activity and heavy lifting should be avoided for 6 weeks following the procedure.

#### H. Care of the remaining kidney

ATests will be done on a regular basis to check how well the remaining kidney is working. A urinalysis (urine test) and blood pressure check should be done every year, and kidney function tests (creatinine, glomerular filtration rate [GFR]) should be checked every few years (or more often if abnormal results are found).

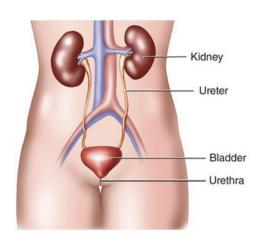
Regular urine tests for protein should be performed as well. The presence of protein in the urine may mean that the kidney has some damage.

#### I. Useful contact numbers

UMMC general line Surgical Clinic: 03-7949 4422, : 03-7949 2736 (Office hours only)
UMMC Urology ward (9TD): 03-7949 4328 / 6712



# NEPHRECTOMY



# A. What is a nephrectomy?

Nephrectomy (nephro = kidney, ectomy = removal) is the surgical removal of a kidney. The procedure is done to treat kidney cancer as well as other kidney diseases and injuries. Nephrectomy is also done to remove a healthy kidney from a donor (either living or deceased) for transplantation.

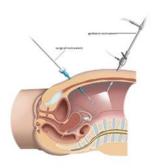
#### B. Types of nephrectomy

There are two types of nephrectomy for a diseased kidney: partial and radical. In partial nephrectomy, only the diseased or injured portion of the kidney is removed. Radical nephrectomy involves removing the entire kidney, along with a section of the tube leading to the bladder (ureter), the gland that sits atop the kidney (adrenal gland), and the fatty tissue surrounding the kidney.

The procedure used to remove a healthy kidney from a donor for the purpose of transplantation is called donor nephrectomy.

#### C. How is nephrectomy surgery done?

#### 1. Laparoscopic (Key Hole) Surgery



Some people who require a nephrectomy are suitable for laparoscopic surgery to remove the kidney. Laparoscopic surgery involves the use of a laparoscope that is passed through a series of small incisions or "ports" in the abdominal wall. It is used to view the abdominal cavity and remove the kidney through a small incision. The procedure is done under general anesthesia. You will require a bladder catheter that is placed once you are asleep and is removed several hours after surgery.

#### 2. Open Nephrectomy

Open nephrectomy is also done under general anesthesia. The surgeon makes a cut (incision) in the abdomen or in the side of the abdomen (flank area). A rib may need to be removed to perform the procedure. The ureter (the tube that carries urine from the kidney to the bladder) and the blood vessels are cut away from the kidney and the kidney is removed. The incision is then closed with stitches.

# Risks and complications of nephrectomy surgery

All surgery has certain risks and complications. Possible complications of nephrectomy surgery include:

- Infection
- Bleeding (hemorrhage) requiring blood transfusion
- Post-operative pneumonia
- Rare allergic reactions to anesthesia
- Death

There is also the small risk of kidney failure in a patient with lowered function or disease in the remaining healthy kidney.

# E. Other options if surgery is declined

Depending on the indication for surgery, leaving behind a diseased kidney may carry a serious complication to you. You are always welcome to come to our urology clinic to clear your doubts and discussed the other options available for you.

# F. Before the surgery

# 1. Pre-admission clinic procedures

a. Details on your health

Several weeks before the surgery, you will be seen

in the pre-operative anesthesiology assessment clinic. Blood tests, heart pacing (electrocardiogram, ECG), X-rays and other tests which are deemed necessary for your pre-operative investigation will be performed.

A discussion will be held regarding the mode of anesthesia. Depending on your other medical conditions, visits to other doctors such as the cardiologist, respiratory physician or endocrinologist may be needed to assess your fitness and optimize you for surgery.

#### b. Medications

Please tell a member of the medical team if you have:

- an implanted foreign body (stent, joint replacement, pacemaker, heart valve, blood vessel graft)
- a regular prescription for a blood thinning agent (warfarin, aspirin, clopidogrel, rivaroxaban or dabigatran)
- any allergy especially towards antibiotics as you will be given a single dose of prophylactic antibiotic prior to surgery.

If you are on blood thinners, instructions will be given on when to withhold or adjust your medication.

# 2. Preparing for admission

a. Advice prior to admission

Please arrange leave from work before your surgery. You may need help to care for your dependents during your hospital stay.

# b. Medications, fasting etc

Please follow your doctor's advice regarding when to withhold your blood thinners before the operation. Failure to do so may result in the operation being postponed to another date.