

# All About TURP

Transurethral Resection of the Prostate



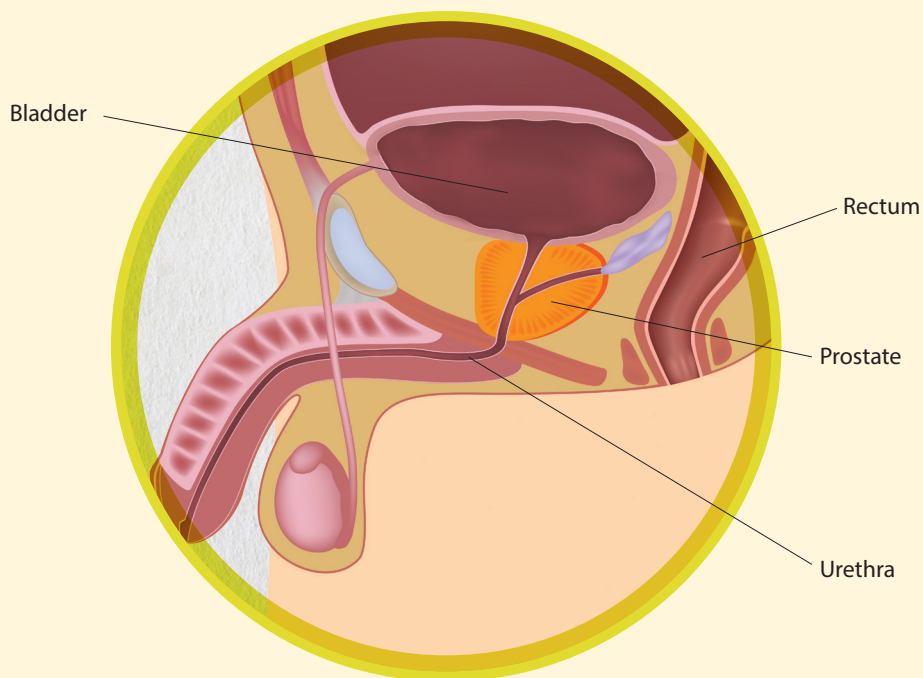
Changi  
General Hospital  

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## What is the prostate?

A normal prostate gland is about the size of a walnut. It surrounds the urethra at the base of the bladder. The urethra is the passage that carries urine from the bladder to the tip of the penis.

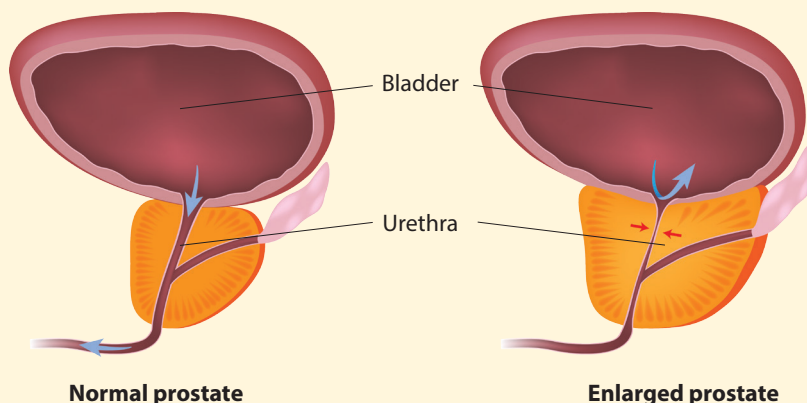


## What is the function of the prostate?

The prostate produces fluid for the nourishment of sperms. The prostate tends to enlarge as a person ages. This enlargement is usually benign, but cancer can still occur.

## What happens in an enlarged prostate?

An enlarged prostate gland tends to narrow the passage of the urethra and obstructs urine flow. This may lead to urinary tract symptoms like urinary hesitancy, frequency and poor urinary flow. It can also result in retention of urine, which may lead to urinary tract infection, formation of bladder stone or even kidney failure. If one is unable to pass urine, a tube (or urinary catheter) will need to be inserted into the bladder to relieve the obstruction.



## How do I know if I have an enlarged prostate?

You may have an enlarged prostate if you are experiencing difficulty when passing urine, have the sensation of incomplete bladder emptying, dribbling and frequent urination.

## What can I do?

See a doctor if the urinary tract symptoms are bothersome or worsening. The doctor will examine you and perform some investigations to diagnose the problem. There are medications available to relieve these symptoms due to an enlarged prostate.

## Why is there a need to remove a part of the prostate?

Most patients with an enlarged prostate will improve with medications and will not require an operation. However, some patients may have persistent symptoms despite medications or develop complications such as kidney failure. These patients will likely benefit from an operation to remove part of the prostate. By removing part of the prostate, it relieves the obstruction thereby allowing for urine to flow more easily through the urethra.

## What is Transurethral Resection of Prostate (TURP)?

Transurethral Resection of the Prostate (TURP) is an operation to remove part of the prostate. It is done with a special instrument (resectoscope) that is passed through the urethra, hence there is no skin incision. Your urologist will explain the operation to you in greater detail.

Imagine the prostate as an orange fruit, and the urethra is the core running through the orange. During TURP, the inner part of the enlarged prostate is removed, leaving behind the capsule of the prostate. This is similar to removing the inner flesh of the orange, leaving behind the orange peel. Thus, the operation does not remove the entire prostate but removes enough tissue to allow an adequate channel for the passage of urine.

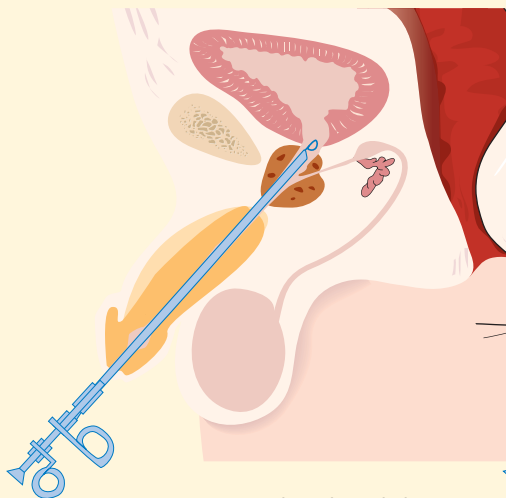


Resectoscope

## What happens during TURP?

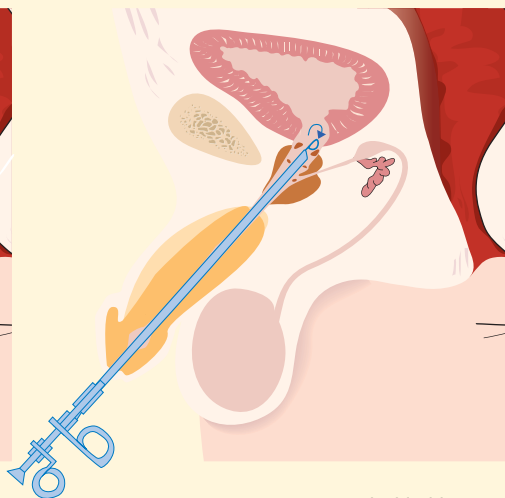
Spinal anaesthesia is usually given, hence you may be awake but should not feel any pain during the operation. The prostate is resected with a resectoscope to create a bigger channel for the passage of urine. A tube (or urinary catheter) is inserted into the bladder after the operation to wash out blood and to prevent blood clots from forming in the bladder.

**Enlarged prostate scraped away**



*A cutting loop through the resectoscope cuts away the obstructing prostate tissue.*

**Pieces of prostate tissue flushed out**



*Prostate pieces in the bladder will be flushed out later. Urethra is now widened.*

## How do I prepare for TURP?

1. Your urologist will explain the need for you to undergo TURP and the potential complications of the operation.
2. Inform the doctor if you have any drug allergies or if you are taking any antiplatelets or anticoagulants. These medications must be stopped one to two weeks before the operation to prevent excessive bleeding. Your doctor will advise you accordingly.
3. Bring along all prescriptions and over-the-counter medication you are currently taking.

## Treatment plan for TURP admission

<b>At the specialist clinic</b>	<ul style="list-style-type: none"><li>• Your doctor will ask for your medical history and explain the nature of your operation as well as its complications. Consent for the operation will be taken.</li><li>• You may be given a clinic appointment with an anaesthetist for a pre-surgery assessment. Please bring along your other prescribed medications from family doctor / private hospital to show your anaesthetist.</li><li>• Investigations including blood tests, electrocardiogram (ECG) and chest X-ray may be performed to assess your fitness level for anaesthesia and surgery.</li></ul>
<b>Before the operation</b>	<ul style="list-style-type: none"><li>• Refrain from smoking and drinking alcohol once you have decided to go for surgery.</li><li>• If you have a flu or upper respiratory tract infection, fever, sore eyes, or diarrhoea, please call the CGH Appointment Centre at Tel: (+65) 6850 3333 to cancel or postpone your surgery.</li><li>• If you are taking any antiplatelets or anticoagulants, this medication needs to be stopped for one to two weeks prior to surgery as advised by your doctor.</li></ul>
<b>Day before operation</b>	<ul style="list-style-type: none"><li>• You should not eat or drink after 12 midnight.</li></ul>
<b>On the day of admission</b>	<ul style="list-style-type: none"><li>• Take a shower before your operation.</li><li>• Do dress comfortably. Do not wear makeup, contact lenses, nail varnish, jewellery or bring excessive cash and valuables on the day of surgery.</li><li>• Upon arrival at the hospital, please report to the Same Day Admission counter, located at level 3 of Changi General Hospital, Main Building. Remember to bring along your admission form given to you during the pre-admission session at the specialist clinic.</li><li>• The nurse will check your weight, temperature, pulse, respiration rate and blood pressure.</li><li>• Hand over any valuables to the nurse for safekeeping before the operation.</li><li>• Your doctor will ask for your medical history and examine you. Blood tests may be repeated prior to the surgery.</li><li>• You will be asked to put on a hospital gown before going into the operating theatre on level 3.</li><li>• The operating theatre nurse will check your name and particulars.</li><li>• The anaesthetist will re-assess your fitness for anaesthesia and surgery before the operation.</li></ul>

### **After the surgery**

- After the operation, you will be closely monitored in the ward.
- You may have food and drinks unless otherwise ordered by the doctor.
- You may experience some discomfort over the penis due to the presence of a urinary catheter. Do inform your nurse if the discomfort or pain is unbearable.
- The urinary catheter is attached to an irrigation bag to wash out blood clots. You will have continuous bladder washout through the urinary catheter for at least one day. Your urinary catheter may be removed the next day if the return from the washout is clear.
- The urine catheter may be reinserted if you are not able to pass urine well.
- You can be discharged after review by your doctor usually on the first post-operative day. You may need to stay in the hospital for a longer duration if you develop a fever or if you require a longer duration of bladder washout.

### **Prior to discharge**

- Your doctor will prescribe antibiotic and any medication that you need. The pharmacist will instruct you on how to take these medications.
- Your nurse will give you a discharge letter, medical certificate and your next appointment date. At the next appointment, you will be asked to pass urine into a machine to measure the speed of your urine flow.

## **What will happen after TURP?**

You can expect blood stained urine to last for up to six to eight weeks because it takes time for the urethra to heal completely.

Some men may experience frequent urination, burning sensation during urination, urgency and incontinence but these symptoms will usually subside gradually over several weeks after the surgery.

### **You are advised to:**

- 1) Drink plenty of fluids about (8 to 10 glasses) a day unless your doctor advises otherwise.
- 2) Avoid lifting heavy things or exertion for four weeks because excessive force can cause bleeding. You are advised to go to the Accident and Emergency Department if there is persistent, worsening or severe bleeding.

- 3) If you were taking blood thinners (e.g., aspirin) before the operation, you can resume it after a few days to a week if your urine is not heavily blood stained. Your doctor will advise you accordingly prior to discharge.
- 4) Contact the Urology clinic staff (during office hours) at (+65) 6788 8833 or go to the Accident and Emergency Department if you experience the following:
  - Heavy bleeding or blood clots in your urine
  - Burning sensation on urination with fever and chills
  - Inability to pass urine

## Frequently asked questions

### 1. Can I prevent an enlarging prostate?

There is no known way to prevent an enlarging prostate as it is part of the ageing process.

### 2. Are there any risks and complications of TURP?

Any operation or anaesthesia carries a risk. Some complications of TURP include:

#### **Bleeding**

In the immediate post-operative period, you may experience severe bleeding despite continuous bladder washout. You may require blood transfusion, and rarely require surgery to stop the bleeding.

Bleeding can also occur after discharge. This can be due to urine infection or re-opening of a sealed blood vessel. If the bleeding is severe, clot retention can occur. You may need to be hospitalised again for further treatment.

#### **Urinary tract infection**

Infection can occur after surgery. This will require antibiotic treatment with a longer hospital stay.

#### **Retrograde ejaculation**

This is the backward passage of sperms into the bladder during ejaculation. As a result, there will be very little or no seminal fluid at ejaculation. This is not harmful, but will affect fertility.



### **Urinary incontinence**

Incontinence after the surgery is rare.

### **Difficulty with urination**

You may still require a urinary catheter after the surgery, due to urinary voiding difficulty. This is usually transient and rarely long term.

### **Persistence of symptoms**

Some lower urinary tract symptoms (e.g., urgency, frequent urination, waking up at night to pass urine) may persist despite operation.

### **Transurethral Resection syndrome (TUR syndrome)**

This rare syndrome is caused by excessive absorption of the irrigation fluid into the body. The symptoms of TUR syndrome include mental confusion, nausea, vomiting, high blood pressure, slow heartbeat and visual disturbances. In severe cases, you may need to be admitted to the Intensive Care Unit for treatment and close monitoring.

The list of complications is not exhaustive and it does not replace a detailed consultation with your doctor.

Your doctor will discuss with you on the benefits, risk of the operation and alternative treatment available.

## **3. Can I have a recurrence after my surgery?**

Recurrence is possible and is due to re-growth of the prostate. This process usually takes several years. However, narrowing of the lower urinary tract can occur as a result of the surgery, and this can result in similar lower urinary tract symptoms.

## **4. Can an enlarged prostate lead to prostate cancer?**

An enlarged prostate is usually a benign condition in most patients. However, in some patients, the removed prostatic tissue may contain cancer. After the surgery, prostate tissue that is removed is examined by a pathologist. You will be informed of the results at your follow-up appointment.

If you are diagnosed with prostate cancer, you will need to undergo further evaluation and treatment.



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### **CGH Appointment Centre**

For appointments and enquiries,  
please call: (65) 6850 3333

Operating hours:  
8.30 am to 5.30 pm (Monday to Friday)  
8.30 am to 12.30 pm (Saturday)  
Closed on Sunday & Public Holiday

For more information, please visit [www.cgh.com.sg](http://www.cgh.com.sg)

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