What is the prostate?
The prostate is one of four accessory sex glands in a male weighing an average of 18 grams. It is in the base of the bladder and responsible to produce nutrients such as zinc and citrate, which help with the survival of the male sperm.

What problems do the prostate cause?
The growth of the prostate is driven by the male hormone, testosterone. With age the prostate increases in size to such a degree that it obstructs the flow of urine in men causing symptoms of frequency of urine, incontinence of urine and getting up several times during the night. The prostate can also become cancerous, where the patient presents with the same obstructive symptoms together with blood in the urine, weight loss, back and bony pain if the cancer has spread to the bones.

How is the diagnosis of prostate cancer made?
A patient undergoing investigation for suspected prostate cancer requires a digital rectal examination (DRE) to assess the size and consistency of the prostate gland and a Prostate Specific Antigen (PSA) blood test. PSA is useful in the detection, staging and monitoring of prostate cancer. A normal serum PSA level is ≤4 μg/l. Although PSA is prostate specific, it is not cancer specific and its value can be elevated in patients with benign prostatic hyperplasia (BPH), prostatitis, urinary retention or sexual activity.

A multiparametric Magnetic Resonance Imaging (Mp-MRI) Scan of the prostate is performed before the prostate biopsy to look for focal lesion in the prostate to target a biopsy and to exclude extra prostatic capsular disease.
A transrectal ultrasound guided prostate biopsy under local anaesthetic is required to obtain histological diagnosis of prostate cancer.

A metastatic search is performed using bone scan, computer tomography (CT) scan of the abdomen and pelvis or PSAM PET scan.

How common is prostate cancer?
Prostate cancer is the second commonest cause of death from cancer in the western world with 198,000 new cases & 31,500 deaths in the USA in 2001 with a 16.6% lifetime risk of the disease and a 3.4% lifetime risk of death. The exact incidence of prostate cancer in Nigeria is unknown as accurate epidemiological data is not available; however, anecdotal
Evidence suggests that prostate cancer is a very common cancer in Nigeria with high mortality rate. Patients often present with incurable metastatic disease as there is no national screening program and public awareness of this cancer is limited.

**Can prostate cancer be treated?**
Yes, if the diagnosis is made early enough and that the cancer is confined to the prostate. In Nigeria, unfortunately, most cases of prostate cancer present late and are often incurable. In the western world most countries have a national screening program and offer all men over the age of 50 a PSA blood test. This is currently not standard practice in Nigeria. Our Urologist recommend that all men over the age of 50 should have a PSA blood test on an annual basis.

**What are the treatment options?**
There are several treatment options available to a patient with prostate cancer. These range from active monitoring of the patient to more aggressive treatment options such as external beam radiotherapy and radical retropubic prostatectomy. These treatment options produce satisfactory outcome with high cancer specific survival rates. However, the potential complications (bleeding) and long-term side effects such as impotence and incontinence make these treatments difficult for the patients to accept. There are now minimally invasive treatment options such as Brachytherapy, High Intensity Focused Ultrasound (HIFU), laparoscopic or robotic prostatectomy which offer good results with lower long-term complications.

**What advice do you give patients on how to prevent getting prostate cancer?**
Patients often enquire about dietary measures to reduce their risk of developing prostate cancer. Dietary suggestions include Soya beans (phytoestrogens), Green Tea, Selenium - protects prostate cells from oxidative damage, Vitamin E an intracellular antioxidant and agents high in Lycopene (tomato & watermelon) are some dietary agents which are thought to be beneficial. Of most importance is a healthy lifestyle with a diet low in animal fat, low in alcohol intake, avoids smoking and regular exercise.

**Are all prostate problems cancer related?**
No, patients can have a benign enlargement of the prostate known as BPH (Benign Prostatic Hyperplasia). This causes the patient to present with urinary symptoms such as a slow urinary stream, dribbling, hesitancy and getting up several times to void during the night.

**What are the treatments for these urinary symptoms?**
Medical therapy is always the first treatment option, this includes a class of drugs called \( \alpha_1 \) Alpha blockers (Alfuzosin, Tamsulosin or Doxazosin) - these group of medication improve symptoms and increase urinary flow rate by relaxing prostatic and bladder-neck smooth muscle through sympathetic activity blockade. Potential side effects include postural hypotension, dizziness, blurred vision and retrograde ejaculation.

Another class of medication are 5-\( \alpha \) reductase inhibitors (Dutesteride and Finasteride) which increase urinary flow rate and prevent progression of the enlarged prostate by reducing prostate growth through hormonal mechanisms. Erectile dysfunction is reported in ~5% of patients; therefore, it is important the patient is aware of this potential side effects and that it is reversible by stopping the drug. These two classes of drugs can be used in isolation or in combination. Homeopathic treatments such as Phytotherapy (Saw Palmetto) role are yet to be determined.
Surgical Treatment for Benign prostatic enlargement.
Transurethral Resection of the Prostate (TURP) has been the Gold standard for over 40 years. This procedure is often performed under spinal anaesthetic with the patient fully awake. The prostate is cored out through the penis with no external incision required. The outcome from this type of operation is good with 90% of patients reporting that they are satisfied with the outcome. However, 70% of patients reported retrograde ejaculation, 10% impotence and a blood transfusion rate of 5%.

New laser technology such as Green light laser photo selective vaporisation of prostate (PVP) and Holmium enucleation of prostate (HoLeP) are performed with varying outcome for the patients. Very large prostates can be vaporised preventing the need for the old fashion open Millin’s retropubic prostatectomy.

Finally:
Some of your questions should have been answered by this leaflet but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure.

Giving my consent (permission). The staff caring for you will ask your permission to perform the procedure. You will be asked to sign a consent form that says you have agreed to the procedure and that you understand the benefits, risks and alternatives.

Useful contacts:
If you have any questions or would like to know more about this procedure, please contact us at Euracare: on: + 234 (0) 809 111 5709 and we will be happy to answer any queries.

How to get there: 293 Younis Bashorun Street, cnr Jide Oki Street, Victoria Island, Lagos, Nigeria.