

# Newsletter

MARCH 2020

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Helping you help your employees

*TB, hearing and Kidney*

“WE CAN'T FIGHT AIDS  
UNLESS WE DO MORE  
TO FIGHT TB AS WELL

- UNKNOWN

## **TUBERCULOSIS**

Tuberculosis is a serious public health issue in South Africa, about 450,000 people develop the disease every year, and 270,000 of those are also living with HIV. TB is South Africa's leading cause of death roughly 89,000 people die from it every year.

TB can be treated and cured, anyone with a long-standing cough, weight loss, night sweats must attend their workplace clinic or local clinic and get tested.

## **HEARING CONSERVATION**

Many people in South Africa may work in a noisy area. The OHS Act empowers employees to report any unsafe workplace. Employers are obliged by law to measure noise and implement a medical surveillance program should the workplace produce excessive noise, ensuring employees will not suffer hearing loss at the workplace. Once a program is implemented, employees are obliged to comply and wear Personal

Protective equipment to reduce noise exposure. It is through collaboration that the workplace can be made safe!

## **KIDNEY TESTING**

A workplace clinic provides a very powerful platform to identify health risks, whether it is work-related or primary health related.

By conducting an annual medical examination that includes a simple urine test, it is possible to identify diseases such as kidney disease, diabetes, urinary tract infection and sexually transmitted diseases early. Many of these diseases can go undetected because many of them don't have symptoms. This will result in early detection which is pivotal in preventing disease.

I cannot over emphasise how powerful workplace healthcare services are in preventing illness and maintaining wellness.



## TB: WHAT YOU NEED TO KNOW

Tuberculosis more commonly known as TB is recognised as one of the greatest health threats in the world today. South Africa is recognised as being affected by one of the worst TB epidemics in the world. Statistics have found this disease to be the leading cause of infectious disease deaths amongst youth and children in South Africa today. Studies have also found that more than half of the diagnosed cases of TB are also diagnosed with HIV.

### WHAT IS IT AND WHAT CAUSES IT?

Tuberculosis is caused by a bacterium known as Mycobacterium Tuberculosis. This bacterium causes an infection that usually affects the lungs however it has been known to affect other areas such as the brain and spine. This disease is an infectious disease and TB of the throat and lungs can be spread to other people.

### TYPES OF TB

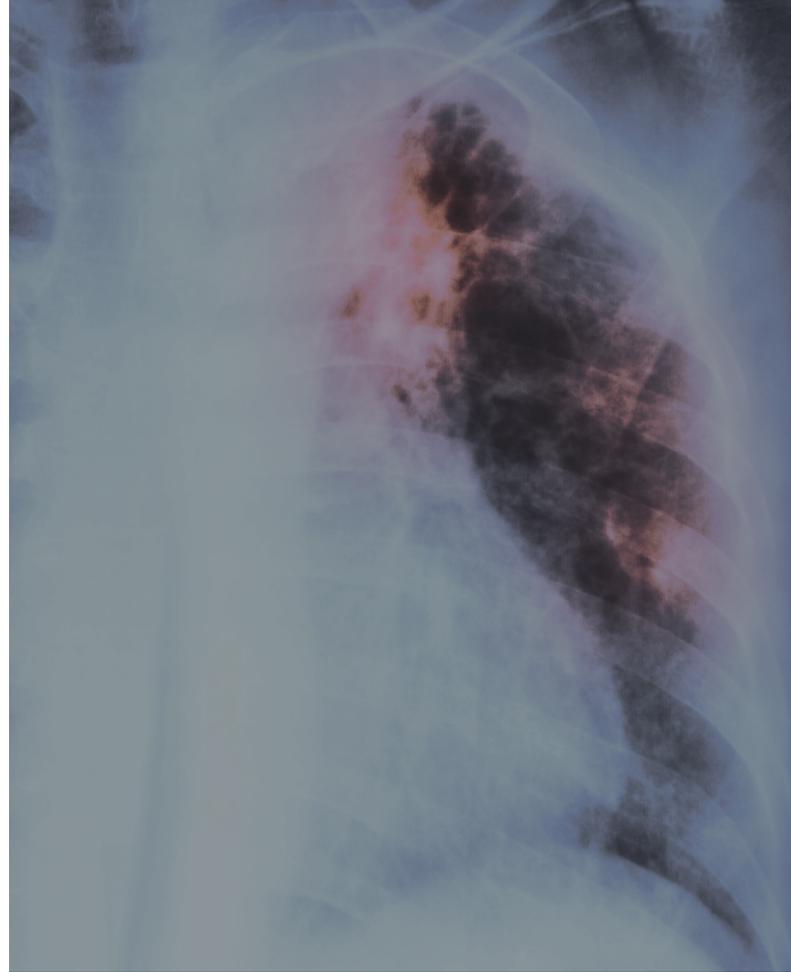
**There are two types of TB infections known as latent and active TB:**

**Latent TB:** This is where the TB bacteria is present within the body however it is in an inactive state and is therefore not contagious, also there are no symptoms but can become active later.

**Active TB –** This is where the TB bacteria is in an active state, this means that the symptoms are present, and the individual is contagious.

### HOW IS TB SPREAD?

TB is an airborne bacterium that is released when infected individuals cough, sneeze, laugh, spit or talk. It is transmitted through small droplets of bacteria that are released and sprayed into the air. This is then transmitted to other people when they breathe in the air. The TB bacteria can stay airborne for a considerable amount of time. However, even though TB is a communicable disease, transmission of the disease is only likely to occur after spending a great amount of time with an individual with active TB. The disease is most likely to be transmitted to people the infected person spends a lot of time in their everyday schedules such as co-workers, friends and family.



### IT IS IMPORTANT TO UNDERSTAND THAT THIS DISEASE CANNOT BE TRANSMITTED FROM ONE PERSON TO ANOTHER THROUGH ANY OF THE FOLLOWING METHODS:

- Shaking the hand of someone with TB;
- Sharing eating utensils with someone with TB;
- Sharing bedclothes or clothes with someone with TB.
- Toilet seats or bathrooms.

### Who is at risk?

- There are several risk factors that you should take into consideration if you think that you may have the disease or that you can possibly contract the disease;
- The first and foremost risk factor to keep in mind is a weakened immune system. This is one of the most important factors in the development of this disease;
- Another risk factor is being HIV positive as more than half of TB patients also have HIV. It has been found that if you are HIV positive you are 30 times more likely to develop active TB than someone who is HIV negative;
- Additional risk factors are situational such as if you are living in an area where TB is common or where there is poor access to healthcare service;
- If you have a condition such as cancer, diabetes or kidney disease that has weakened your immune system;
- You may also be at risk if you are part of a vulnerable population such as babies, young children and the elderly.

### Symptoms of active TB include the following:

- A cough that lasts for more than two to three weeks;
- If you are coughing up blood;
- If you are experiencing a pain in the chest;
- If you experience sudden weight loss;
- If you are experiencing weakness and fatigue;
- If you are experiencing chills, fever and night sweats; and
- Lack of appetite.

Should you experience the above-mentioned symptoms please book an appointment with a medical professional so that a screening test may be conducted. If left untreated it can cause damage to your lungs and other organs. It is also important to know that a person with active TB can infect between 10 to 15 people a year.

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### Diagnosis

There are several methods through which TB is diagnosed including the following:

- Chest x-ray;
- Sputum examination (this test is done as sputum originates from a deep cough from the lungs).

The speed of results depends on the type of test done and can take anything from 24 hours or 3 months to process.

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### Treatment

Treatment in cases of TB is of paramount importance as there is a high chance of death should the full medical treatment regime not have been followed.

- TB is a curable disease if you take the correct medicine and if it is correctly administered over the correct amount of time.
- The type of antibiotic treatment depends on certain aspects such as the individual's age and whether the TB bacteria is latent or active. Individuals diagnosed with latent TB need to only take one type of antibiotic, while individuals diagnosed with active TB need to take a prescription of multiple drugs.
- The antibiotics need to be taken for about 6 months and it is important to complete the course. Otherwise, the bacteria that survives will become resistant to medication and could lead to the development of MDR-TB in the future.



## HEARING CONSERVATION

Noise is an unwanted sound that is a by-product of many industry processes. Sound consists of pressure changes in the air caused by vibration or turbulence. These pressure changes produce waves emanating away from the turbulent/vibrating source which causes levels of sound. High levels of noise exposure cause hearing loss which is harmful to a person's health. The intensity of the noise and the duration of the exposure will depend on the damage caused to a person's hearing.

Noise-induced hearing loss can be temporary or permanent. Temporary hearing loss is caused by short term exposure to noise with normal hearing returning after a short period.

Permanent hearing loss accrues over a prolonged period with exposure to high levels of noise that gradually cause permanent hearing damage.

The Occupational Health and Safety Act of 1970 (now Act 95 of 1993) introduced the requirement that all persons exposed to noise levels from 80 - 130 decibels (dB) must wear protective hearing gear, like earplugs or headphones and be monitored yearly for hearing loss.

“ IT'S A NOISY WORLD,  
PROTECT YOUR EARS

- UNKNOWN

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## KIDNEY TESTING

As there are no early symptoms warning of kidney disease, it is advisable to ask your healthcare practitioner to test your kidneys for early detection of any kidney disease. Early treatment will help protect your kidneys and slow down any further damage before symptoms become too severe. Kidney disease can lead to other health problems which include weak bones, nerve damage, and malnutrition.

This disease gets worse over time as your kidney function decreases and may stop working completely. This would mean that dialysis will be required to perform the function of the kidneys. Dialysis is the treatment for kidney disease which filters and purifies the blood using a machine. It can't cure kidney disease, but it can prolong life.

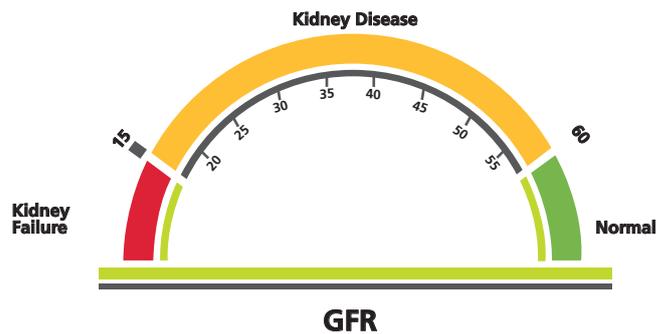
### The following symptoms are early warning signs of developing kidney disease:

- Fatigue;
- Difficulty concentrating;
- Trouble sleeping;
- Poor appetite;
- Muscle cramping;
- Swollen feet/ankles;
- Puffiness around the eyes in the morning;
- Dry, scaly skin;
- Frequent urination, especially late at night.

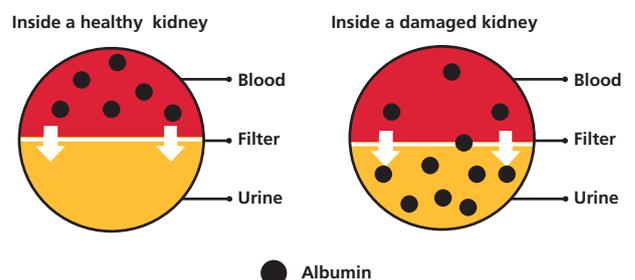
“ WITH THE NEW DAY COMES  
NEW STRENGTH AND NEW  
THOUGHT ”  
- ELEANOR ROOSEVELT

### There are two tests that can be done to diagnose kidney disease and they are:

- A blood test that checks how efficient your kidneys are filtering your blood. The test called glomerular filtration rate (GFR). (Creatinine is a waste product in the blood which healthcare practitioners use to estimate your GFR)



- • GFR of 60 or more is in the normal range.
- • A GFR of less than 60 may mean you have kidney disease.
- • A GFR of 15 or less is called kidney failure. Most people below this level will need dialysis or a kidney transplant.
- A urine dipstick test to check for albumin. - Albumin is a protein that passes into the urine when the kidneys are diseased.



A healthy kidney doesn't let albumin pass into the urine. A damaged kidney lets some albumin pass into the urine.

- • 30 mg/g or less is normal
- • More than 30 mg/g may be a sign of kidney disease



**The kidneys are a pair of fist-sized organs located at the bottom of the rib cage. There is one kidney on each side of the spine.**

It is the function of healthy kidneys to remove waste, excess fluid from the blood and any other impurities out of the blood. These toxins are stored in the bladder and are removed when urinating. The kidneys also regulate pH, salt, and potassium levels in the body, they also produce hormones that regulate blood pressure and control the production of red blood cells. The kidneys even activate a form of vitamin D that helps the body absorb calcium.

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### **WHAT ARE THE RISK FACTORS FOR DEVELOPING KIDNEY DISEASE?**

People with diabetes have a higher risk factor of developing kidney disease. Diabetes is the leading cause of kidney disease. You are more likely to get kidney disease if you:

- Have high blood pressure;
- Have other family members with chronic kidney disease;
- Are elderly;
- Are of african, hispanic, asian, or american indian descent.

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### **BE CAREFUL WITH OVER-THE-COUNTER MEDICATION**

Always follow the dosage instructions for over-the-counter medications. Taking too much aspirin (Bayer) or ibuprofen (Advil, Motrin) can cause kidney damage. See your healthcare practitioner if normal doses of over-the-counter medications does not control your pain effectively.

### **DIETARY AND LIFESTYLE CHANGES**

Making changes to your diet is just as important as taking medication. Adopting a healthy lifestyle can help prevent many of the underlying causes of kidney disease. It is recommended that you:

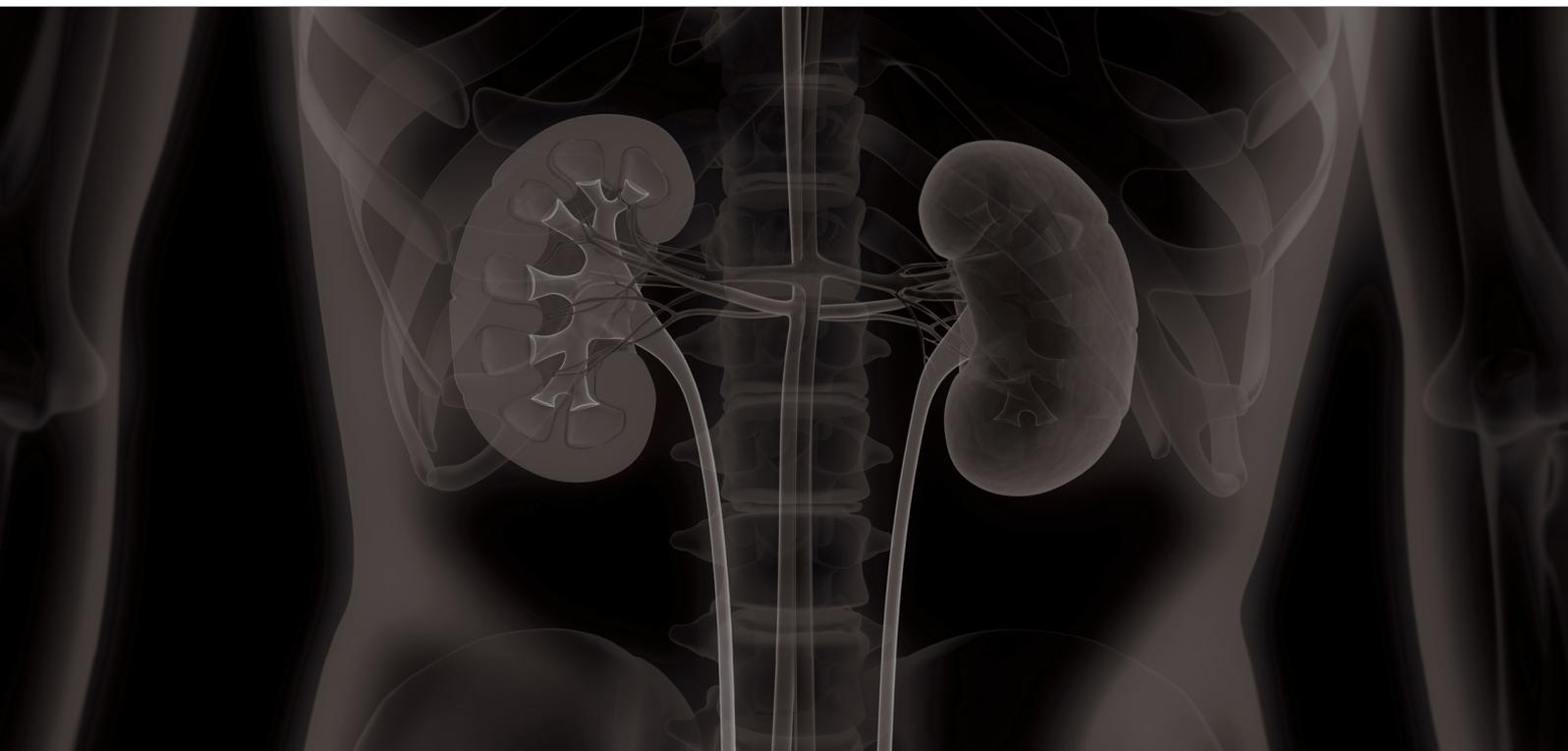
- Control diabetes through insulin injections;
- Limit foods high in cholesterol;
- Cut back on salt;
- Start a heart-healthy diet that includes fresh fruits, veggies, Whole grains, and low-fat dairy products;
- Limit alcohol consumption;
- Quit smoking;
- Increase physical activity; and
- Lose weight.

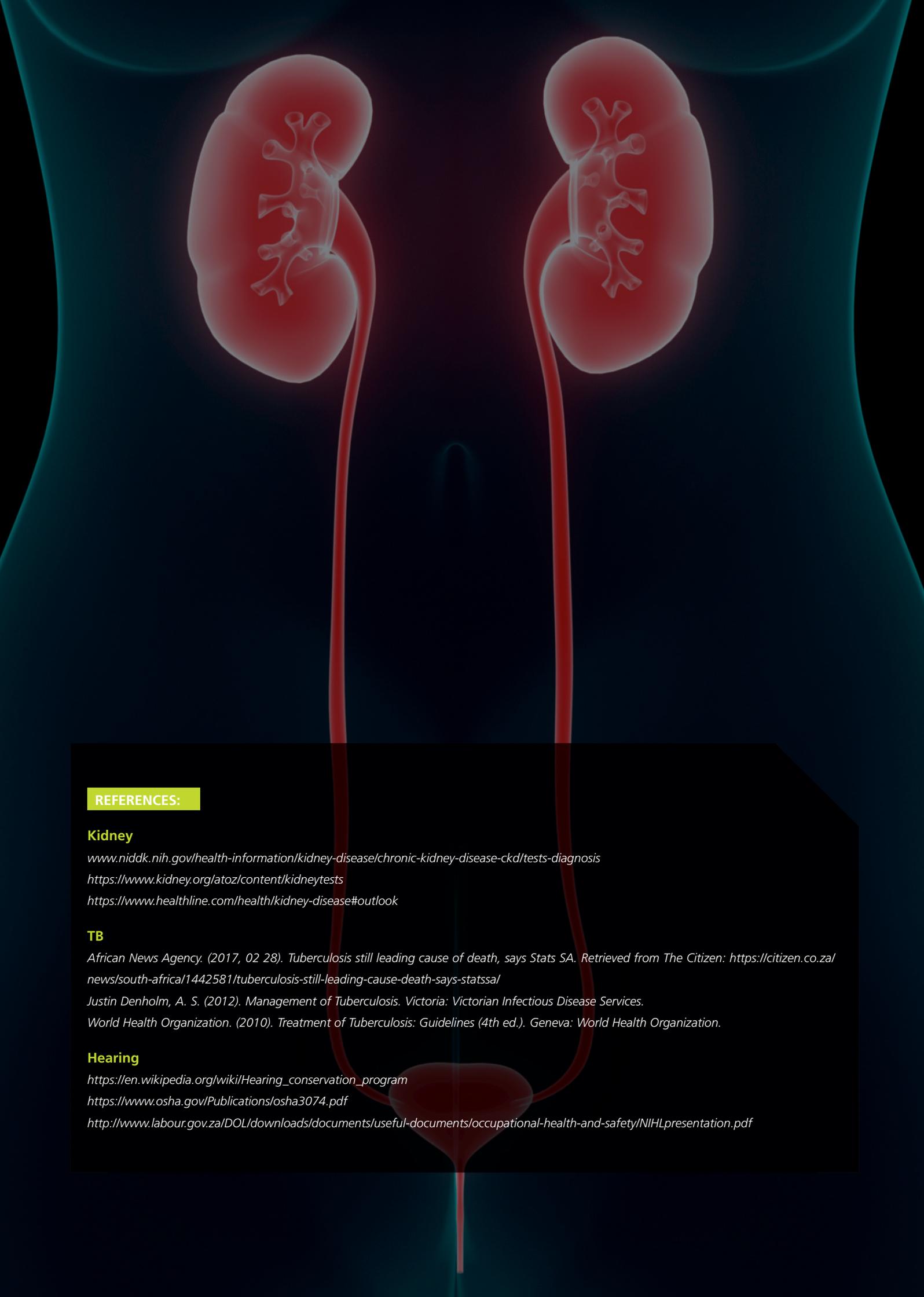
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### **HOW CAN KIDNEY DISEASE BE PREVENTED?**

Some risk factors for kidney disease — such as age, race, or family history — are impossible to control. However, there are measures you can take to help prevent kidney disease:

- Drink plenty of water;
- Control blood sugar (if you have diabetes);
- Control blood pressure;
- Reduce salt intake;
- Quit smoking.





## REFERENCES:

### Kidney

*www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/tests-diagnosis*

*https://www.kidney.org/atoz/content/kidneytests*

*https://www.healthline.com/health/kidney-disease#outlook*

### TB

*African News Agency. (2017, 02 28). Tuberculosis still leading cause of death, says Stats SA. Retrieved from The Citizen: https://citizen.co.za/news/south-africa/1442581/tuberculosis-still-leading-cause-death-says-statssa/*

*Justin Denholm, A. S. (2012). Management of Tuberculosis. Victoria: Victorian Infectious Disease Services.*

*World Health Organization. (2010). Treatment of Tuberculosis: Guidelines (4th ed.). Geneva: World Health Organization.*

### Hearing

*https://en.wikipedia.org/wiki/Hearing\_conservation\_program*

*https://www.osha.gov/Publications/OSHA3074.pdf*

*http://www.labour.gov.za/DOL/downloads/documents/useful-documents/occupational-health-and-safety/NIHLpresentation.pdf*