



## What is blood glucose?

Your blood sugar levels, also known as blood glucose levels, is a measurement that shows how much sugar you have in your bloodstream. The level of sugar in our body comes from the food we eat and drink but is also dependent on how our bodies store and release sugar into the blood by our liver, muscles and pancreas.

## How does the body control blood glucose?

Your body (the pancreas) produces insulin which moves glucose from your blood into your cells for energy and storage. This process is usually done automatically, but sometimes the body has trouble regulating the level of sugar in your blood.

## What happens if my body can't control blood glucose levels?

Diabetes is a chronic health condition where your body does not produce insulin correctly, and is unable to regulate your blood sugar, as a result, blood sugar levels can get too high. People with diabetes must adapt their lifestyles and monitor their blood sugar levels, administering insulin injections where required. It's a managed disease.

### Symptoms



High blood sugar readings



Extreme fatigue



Always thirsty

### Treatment



Sugar control



Medicines



Insulin

### Prevention



Healthy food



Normal weight



Medical control



**HYPOGLYCEMIA**  
(low blood sugar)



**NORMAL LEVEL**  
(normal blood sugar)



**HYPERGLYCEMIA**  
(high blood sugar)

## How does diabetes impact my kidney functionality?

Poorly managed diabetes can cause the tiny blood vessels in the kidneys to become blocked, which can damage the filtering process and allow albumin (a type of protein) to move into the urine, which should be prevented. Diabetes can also cause damage to the nerves in your bladder which can prevent it emptying when needed and cause damage to your kidneys.



## How can I manage this impact?

Controlling blood sugar can help prevent the damage to your kidneys getting any worse. Uncontrolled blood glucose levels can cause wider damage to your blood vessels resulting in poor circulation and many related health issues. Examples are damage to the blood supply to your eyes and feet and toes than can eventually result in loss of sight or amputation of toes.

## How can I look after my kidneys if I have diabetes?



### Know your blood glucose levels

This can be checked using a finger prick test, blood glucose monitor or HBA1C. Note – If you are a registered diabetic, your medical aid will pay for two HBA1C tests per year.



### Keep your blood glucose under control

Diet, exercise and medication (refer to lifestyle adjustments module).



### See your diabetic specialist regularly, podiatrist and dietitian

as recommended by your GP / nephrologist.



### Control your blood pressure.

For a comprehensive list of references and contributors involved in the creation of this material, please refer to the included reference sheet.