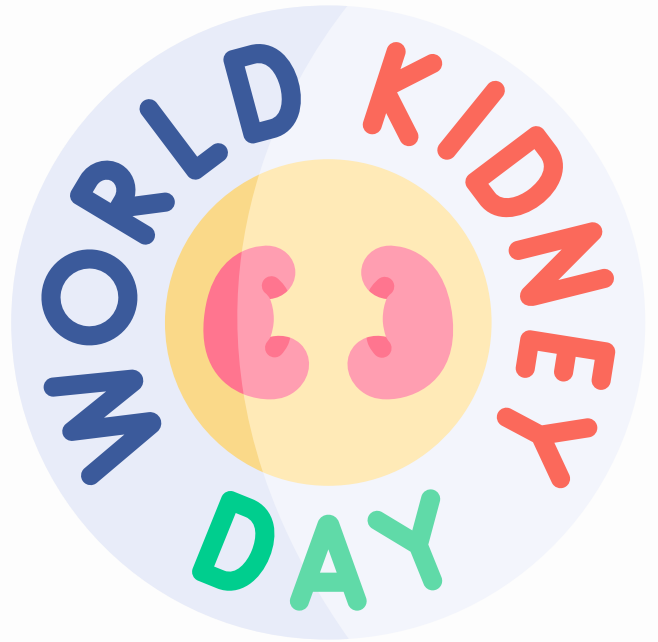


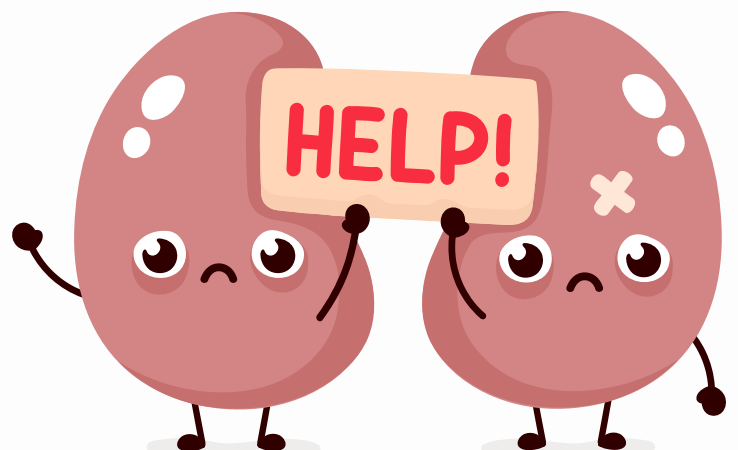
Are Your Kidneys OK?

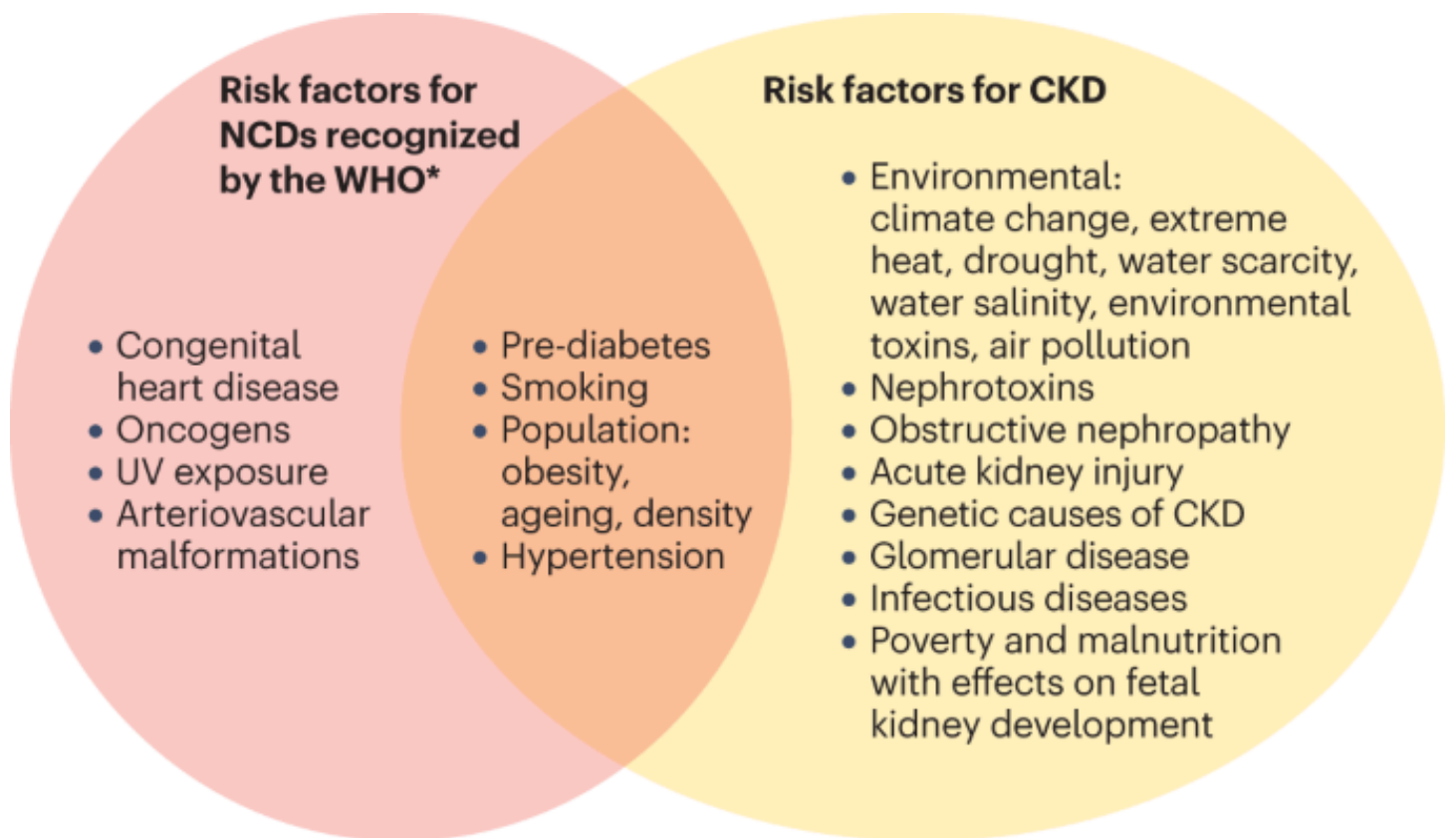
Chronic kidney disease (CKD) is estimated to affect approximately 850 million people worldwide. If left undetected and not treated timely, CKD can progress to kidney failure, leading to severe complications and premature mortality. By 2040, CKD is projected to become the 5th leading cause of years of life lost, highlighting the urgent need for global strategies to combat kidney disease.



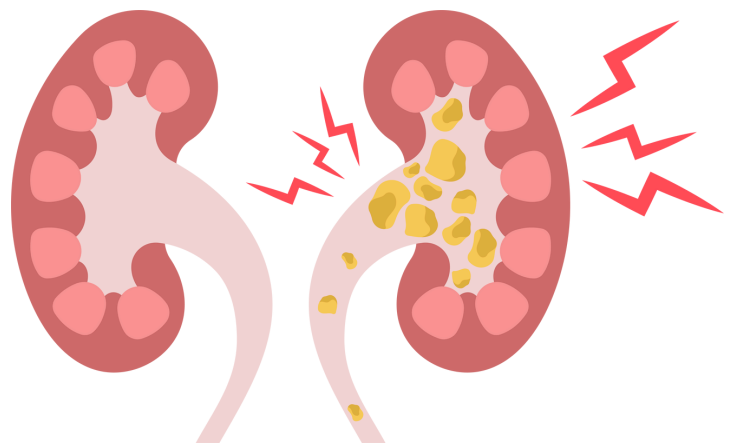
MAJOR RISK FACTORS

- Diabetes
- Hypertension
- Cardiovascular disease
- Obesity
- Family history of kidney disease.











OTHER RISK FACTORS



- Acute Kidney Injury
- Pregnancy-related kidney disease
- Autoimmune diseases (such as systemic lupus erythematosus or vasculitis)
- Being born with a low birth weight or prematurely
- Blockages in the urinary tract
- Frequent kidney stones
- Birth defects affecting the kidneys or urinary tract.
- In lower-income countries, kidney disease is often linked to heat stress in farm workers , snake bites, environmental toxins, traditional medicines, infections like hepatitis B or C, HIV, and parasites .

SIMPLE, NON-INVASIVE, & COST-EFFECTIVE TESTS FOR HIGH-RISK POPULATIONS

- Urine test: Albumin in urine (Albuminuria) to assess kidney damage. Urinary Albumin-Creatinine Ratio (uACR) is preferable.
- Blood tests: Glycosylated haemoglobin or fasting or random glucose to check for type 2 diabetes.
- Serum creatinine (more accurate if in combination with cystatin C) to estimate Glomerular Filtration Rate (eGFR) and evaluate kidney function.

STAGES OF CHRONIC KIDNEY DISEASE		GFR*	% OF KIDNEY FUNCTION
Stage 1	Kidney damage with normal kidney function	90 or higher	 90-100%
Stage 2	Kidney damage with mild loss of kidney function	89 to 60	 89-60%
Stage 3a	Mild to moderate loss of kidney function	59 to 45	 59-45%
Stage 3b	Moderate to severe loss of kidney function	44 to 30	 44-30%
Stage 4	Severe loss of kidney function	29 to 15	 29-15%
Stage 5	Kidney failure	Less than 15	 Less than 15%

* Your GFR number tells you how much kidney function you have. As kidney disease gets worse, the GFR number goes down.



**KIDNEY
DISEASES ARE
SILENT KILLERS,**

**THEY CAN
LARGELY
AFFECT YOUR
QUALITY OF
LIFE!**

WAYS TO REDUCE THE RISK

EAT A HEALTHY DIET-

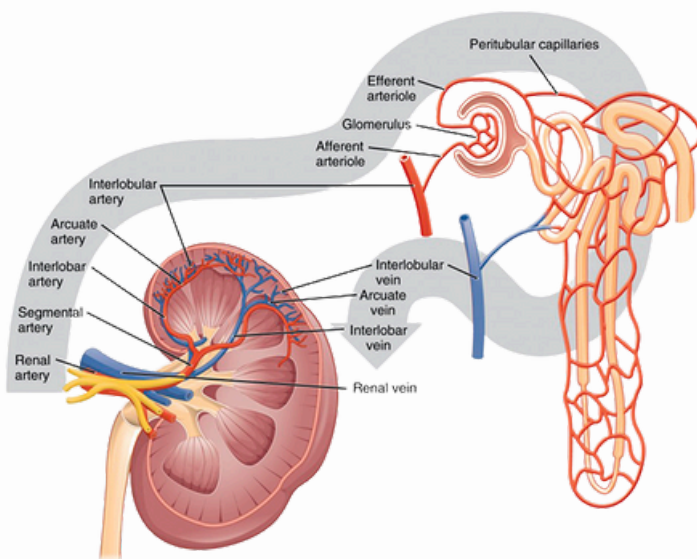
This can help to maintain an ideal body weight, reduce your blood pressure, prevent diabetes, heart disease and other conditions associated with Chronic Kidney Disease. Reduce your salt intake. The recommended sodium intake is 5-6 grams of salt per day. This includes the salt already in your foods. (around a teaspoon). To reduce your salt intake, try and limit the amount of processed and restaurant food and do not add salt to food. It will be easier to control your salt intake if you prepare the food yourself with fresh ingredients.

CHECK AND CONTROL YOUR BLOOD SUGAR-

About half of people who have diabetes do not know they have diabetes. Therefore, you need to check your blood sugar level as part of your general body checkup. This is especially important for those who are approaching middle age or older. About half of people who have diabetes develop kidney damage; but this can be prevented/ limited if the diabetes is well controlled. Check your kidney function regularly with blood and urine tests.

Did you know that over time, high blood pressure harms renal blood vessels?

Over time, **uncontrolled high blood pressure can cause arteries around the kidneys to narrow, weaken or harden.** These damaged arteries are not able to deliver enough blood to the kidney tissue.



REMEMBER

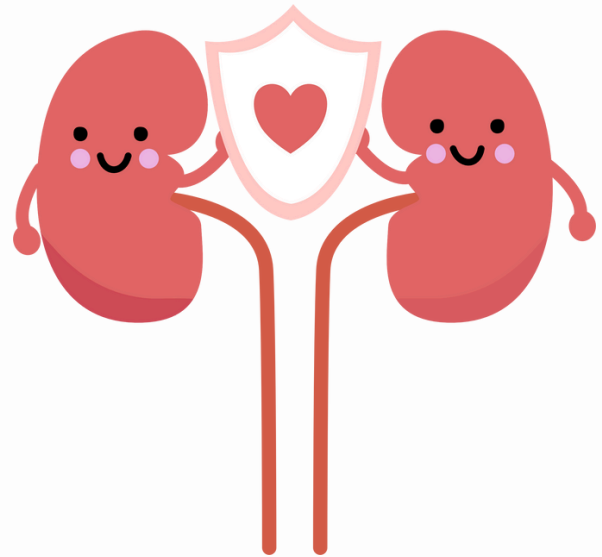
1 Damaged arteries cannot deliver blood to kidneys

2 Damaged kidneys cannot filter blood correctly

CHECK AND CONTROL YOUR BLOOD PRESSURE-

About half of people who have high blood pressure do not know they have high blood pressure. Therefore, you need to check your blood pressure as part of your general body checkup. This is especially important for those who are approaching middle age or older. High blood pressure can damage your kidneys. This is especially likely when associated with other factors like diabetes, high cholesterol and Cardio-Vascular Diseases. The risk can be reduced with good control of blood pressure. Normal adult blood pressure level is 120/80. Hypertension is diagnosed if, when measured on two different days, the systolic blood pressure readings on both days is ≥ 140 mmHg and/or the diastolic blood pressure readings on both days is ≥ 90 mmHg (WHO).

If your blood pressure is persistently elevated above the normal range (especially if you are a young person), you should consult your doctor to discuss the risks, the need for lifestyle modification and medication treatment.



TAKE APPROPRIATE FLUID INTAKE:

The right level of fluid intake for any individual depends on many factors including exercise, climate, health conditions, pregnancy and breastfeeding. Normally this means 8 cups, approximately 2 liters (quarts) per day for a healthy person in a comfortable climate condition.

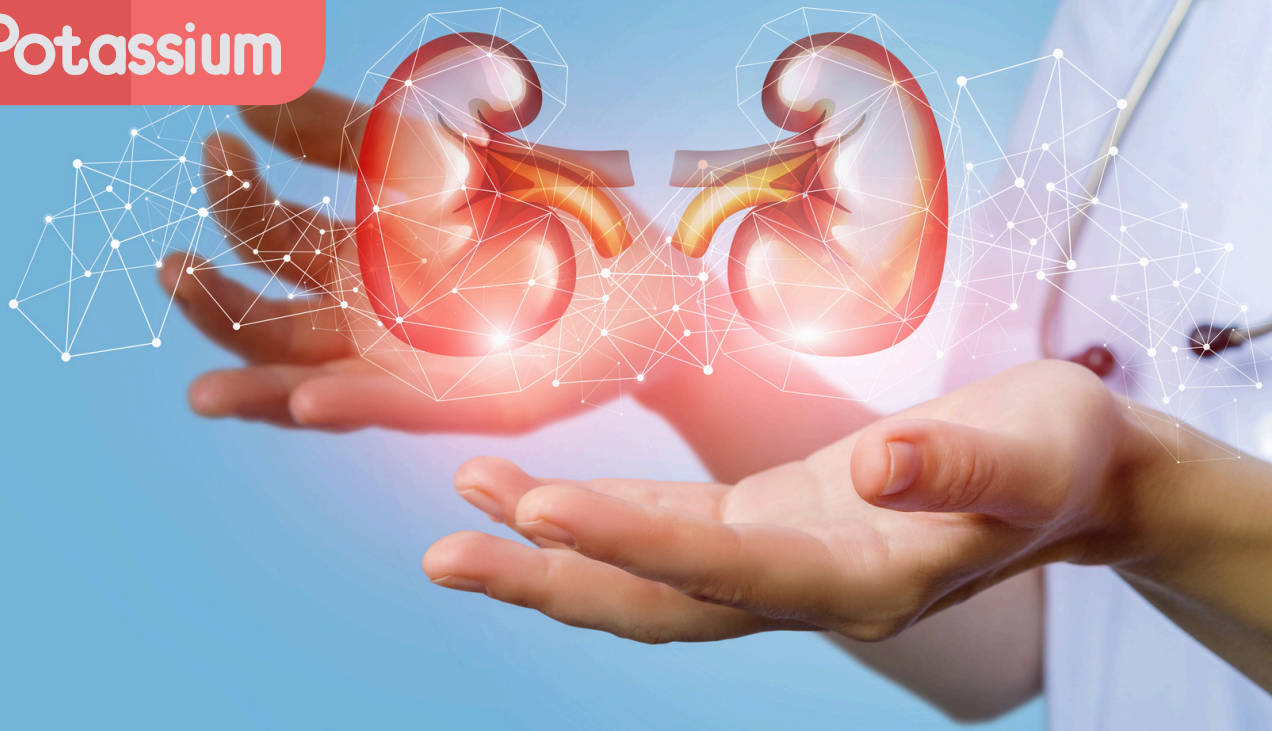
This needs to be adjusted when in severe climate condition. Your fluid intake may need to be adjusted if you have kidney or heart or liver disease. Consult your doctor on the appropriate fluid intake for your condition.

DON'T SMOKE:

Smoking slows the flow of blood to the kidneys. When less blood reaches the kidneys, it can decrease their ability to function normally. Smoking also increases the risk of kidney cancer by about 50 per cent.

DON'T TAKE OVER-THE-COUNTER MEDICATION:

Common drugs such as non-steroidal anti-inflammatory (NSAIDs)/ pain-killer (e.g. drugs like ibuprofen) can harm the kidneys if taken regularly. If you have kidney disease or decreased kidney function, taking just a few doses can do harm to your kidneys. If in doubt, check with your doctor or pharmacist.



Potassium has been shown to fend off high blood pressure... and high blood pressure is one of the leading causes of chronic kidney diseases. So, if you're a healthy person who wants to prevent chronic kidney disease, it's important to eat plenty of potassium-rich foods, like:

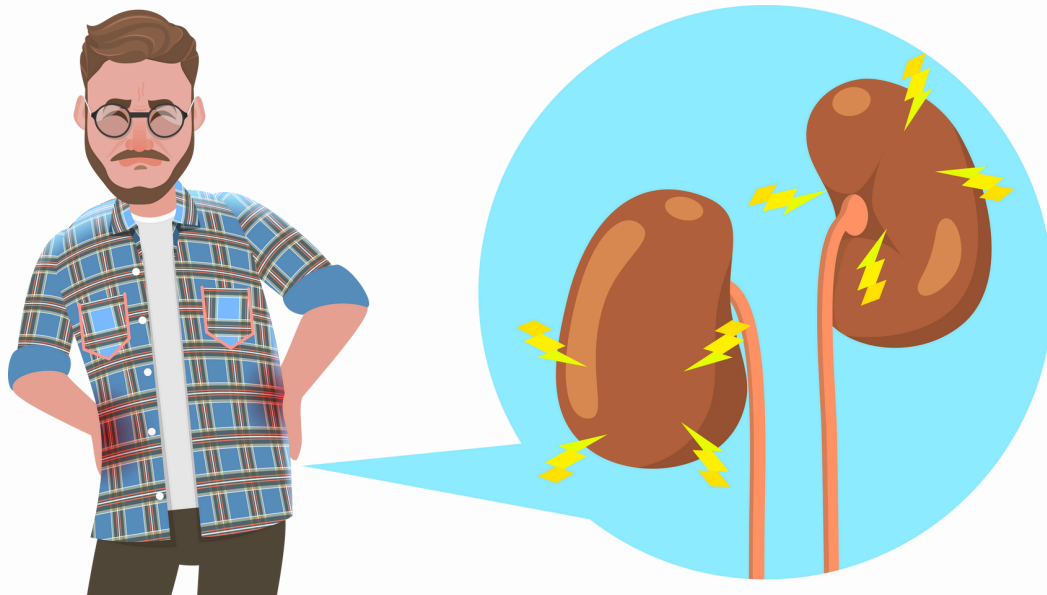
- Asparagus
- Avocados
- Bananas
- Cantaloupe
- Spinach
- Honeydew melon
- Kiwis
- Nectarines
- Oranges
- Potatoes
- Tomatoes
- Winter squash

POTASSIUM AND KIDNEY DISEASE

5 SIGNS THAT YOUR KIDNEYS ARE IN TROUBLE

- You're always tired. When your kidneys aren't working at full capacity, toxins build up in your blood. You may feel weak and have trouble concentrating.
- Also, your kidneys make a hormone that tells your body to create red blood cells. If you're not making enough red blood cells, your blood can't deliver oxygen to your muscles and brain.
- Itchy skin. It may not be dry skin that's making you itch. If toxins build up in your blood, you may itch all over, or have rashes. Over time, if your kidneys can't balance minerals like calcium and potassium in your body, it can lead to bone disease, which can make your skin dry and itchy.
- Swollen face and feet. When your kidneys can't get rid of sodium efficiently, fluids build up in your body and lead to puffy hands, feet, ankles, legs or face.
- Feeling out of breath. This, along with swelling, can be an early sign of kidney failure.

Healthy kidneys make a hormone called erythropoietin, which signals your body to make red blood cells. Without this hormone, you can develop anemia, which causes fatigue and breathlessness. That's because your body isn't getting the oxygen it needs.



URINE COLOR: YOUR BEST CLUE

Changes in the color of your urine are perhaps the biggest tipoff that something is going wrong with your kidneys.

- Clear or pale yellow urine is your ideal. It shows you're well hydrated.
- If your urine becomes dark yellow or amber, you may be dehydrated and should drink more water and cut back on dark sodas, tea, and coffee.
- If your urine is foamy, it's a sign that it's carrying excess protein, which is a clear sign of kidney disease.



CLEAR/PALE YELLOW

Good news! It means you are well hydrated.



DARK YELLOW

You are probably **dehydrated**.



PINK TO REDDISH

It can be caused by **food** or it might be **blood in your urine**. Ask your doctor for a urine test.



BLUE

Probably caused by some **food** that would dye your urine.



FOAMY OR FIZZY

May indicate **protein in the urine**. This can be an early sign of kidney disease. Talk about it to your doctor in any case.



if you really want to kick your kidneys into high gear you can also try natural remedies like but please discuss with your doctor before consuming these.

- Dandelion
- Parsley juice
- Aloe vera juice
- Cranberry juice
- Apple cider vinegar

Thiamine (known universally as vitamin B1) was found to slow, protect, and reverse kidney damage in the early stages. Five of the best foods rich in B-1 (Thiamine) are:

- Brewer's yeast – the food product with the highest concentration of B1
- Grains and cereals – wheat germ, rice, and oatmeal
- Meat and fish – tuna is highest followed by pork and poultry
- Dried fruits, seeds, and nuts – sunflower seeds, peanuts, pecans, and raisins specifically
- Green veggies – Brussels sprouts, asparagus, broccoli, peas, and avocado

**LOVE
YOUR
KIDNEYS,**

**LIVE
YOUR
BEST LIFE!**

