

KIDNEY DEFICIENCY

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<https://www.doi.org/10.5281/zenodo.10468169>

ARTICLE INFO

Received: 02nd January 2024

Accepted: 07th January 2024

Online: 08th January 2024

KEY WORDS

Kidney Deficiency, Renal Health, Traditional Medicine, Nephrology, Renal Anatomy, Kidney Functions, Symptoms of Kidney Deficiency, Causes of Kidney Deficiency, Preventive Measures, Dietary Considerations.

ABSTRACT

This article delves into the intricate concept of kidney deficiency, a term rooted in traditional medicine and also recognized in modern healthcare. Exploring the anatomy and functions of the kidneys, the article discusses the potential causes and symptoms of kidney deficiency, emphasizing its role in various health conditions. Key elements such as preventive measures, dietary considerations, and contemporary medical perspectives contribute to a holistic understanding of kidney deficiency. Aimed at both traditional medicine enthusiasts and individuals seeking insights into renal health, this article aims to shed light on the multifaceted nature of kidney deficiency.

What is kidney failure?

Kidney failure (renal failure) means one or both of your kidneys no longer function well on their own. Kidney failure is sometimes temporary and develops quickly (acute). Other times it's a chronic (long-term) condition that slowly gets worse.

Kidney failure is the most severe stage of kidney disease. It's fatal without treatment. If you have kidney failure, you may survive a few days or weeks without treatment.

What do the kidneys do?

Your kidneys are bean-shaped organs about the size of your fist. They sit under your ribcage, toward your back. Most people have two working kidneys, but you can live well with only one kidney as long as it's working correctly.

Kidneys have several jobs. One of the most important jobs is helping your body eliminate toxins. Your kidneys filter your blood and send waste products out of your body in urine (pee).

When your kidneys don't work correctly, waste products build up in your body. If this happens, you'll feel sick and eventually die without treatment. Many people can manage kidney failure with the proper treatment.

What happens when kidney failure starts?



There are kidney disease stages according to your estimated glomerular filtration rate (eGFR).

Your eGFR is a calculation of how well your kidneys filter substances. A normal eGFR is about 100. The lowest eGFR is 0, which means there's no remaining kidney function.

The stages of any kidney disease include:

Stage I. Your GFR is higher than 90 but below 100. At this stage, your kidneys have mild damage but still function normally.

Stage II. Your GFR may be as low as 60 or as high as 89. You have more damage to your kidneys than in stage I, but they still function well.

Stage III. Your GFR may be as low as 30 or as high as 59. You may have mild or severe loss of kidney function.

Stage IV. Your GFR may be as low as 15 or as high as 29. You have severe loss of kidney function.

Stage V. Your GFR is below 15. Your kidneys are nearing or at complete failure.

Symptoms and Causes

What are the first warning signs of kidney failure?

Many people experience few or no symptoms in the early stages of kidney disease. However, chronic kidney disease (CKD) may still cause damage even though you feel fine.

CKD and kidney failure symptoms vary between people. If your kidneys aren't working properly, you may notice one or more of the following signs:

- Extreme tiredness (fatigue).
- Nausea and vomiting.
- Confusion or trouble concentrating.
- Swelling (edema), particularly around your hands, ankles or face.
- Peeing more often.
- Cramps (muscle spasms).
- Dry or itchy skin.
- Poor appetite or food may taste metallic.

What are Kidneys?

The kidneys are 2 bean-shaped organs, each about the size of a fist. They are found in your back on either side of the spine. Healthy kidneys clean waste products from the blood by making urine. They also balance the amount of certain elements in your blood (such as sodium, potassium, and calcium), and make hormones that control blood pressure and red blood cells.

What is Kidney Failure?

Before kidney failure occurs, patients have "chronic kidney disease" (CKD). Kidney (renal) failure is when kidneys don't work as well as they should, to the point where kidney replacement is required. Kidney replacement can be accomplished by different kinds of dialysis or by kidney transplant. The term "kidney failure" covers a lot of problems. These problems can result in kidney failure:

Your kidney doesn't get enough blood to filter. Your kidney is hurt by a disease like

- high blood sugar (diabetes)



- high blood pressure
- glomerulonephritis (damage to the kidney's tiny filters; one example: lupus)
- polycystic kidney disease
- and many others

Your kidney is blocked by a kidney stone or scar tissue (blockage of ONE kidney usually does not cause kidney failure because the other kidney is not affected; but blockage of two kidneys can lead to an emergency).

Symptoms. The symptoms of CKD are often quite mild; people may have significantly reduced kidney function and not be aware of it. The symptoms of kidney failure can differ based on how bad the kidney failure is, how quickly it is getting worse, and what is causing it.

There are 2 main types of kidney (renal) failure: acute (sudden) and chronic (over time).

Acute Renal Failure – more commonly known today as “acute kidney injury”(AKI)

AKI occurs when the kidneys suddenly stop filtering waste products from the blood.

The signs of AKI can be:

- swelling of the hands, feet and face (edema)
- internal bleeding
- confusion
- seizures
- coma
- abnormal blood and urine tests
- high blood pressure

Chronic Kidney Disease (CKD; previously known as Chronic Renal Failure – CRF)

CKD builds slowly with very few symptoms in its early stages.

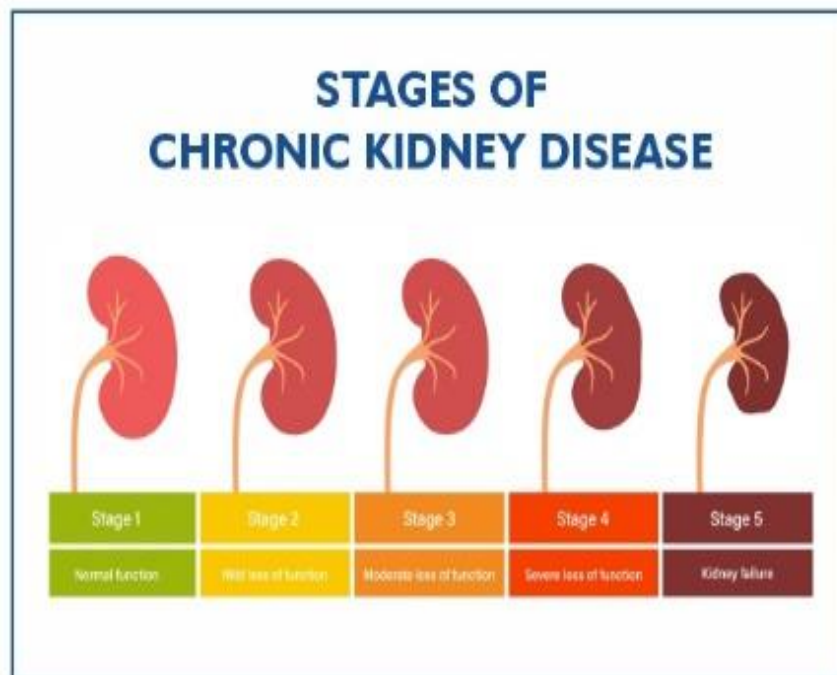
A patient with CKD may not have any symptoms until kidney function declines to 20% or less. At that stage, these signs may appear:

- abnormal blood and urine tests
- high blood pressure
- weight loss for no reason
- low red blood cell count (anemia)
- nausea
- vomiting
- metal taste in your mouth
- loss of appetite
- shortness of breath
- numbness and tingling
- confusion
- coma

What your kidneys do? and how do they work ?

Your kidneys clean your blood. Most people have two kidneys. The kidneys are found on either side of the spine, just below the ribs. They work as a filter to remove water and wastes from the body. Urine is water that contains wastes: what is left over in the blood from food used by the body and the body's many functions. Some of the body's wastes are passed out in

urine, which flows down drainage tubes (ureters) into the bladder. When your kidneys don't work properly. If the kidneys stop working properly, damage to other parts of the body can result. Kidney disease can happen very slowly without anyone noticing. Kidney disease damages the kidney filters so that they can't remove wastes and water. When this happens, the body fills up with excess fluid and wastes. Over time, this makes a person feel very unwell. If the damage becomes really bad and the kidneys can't get better, doctors call it 'kidney failure' or end-stage kidney disease (ESKD). It is possible that a person with kidney disease is still passing a lot of urine, but that the urine is not getting rid of enough wastes to keep the person healthy, so that they are building up in the body



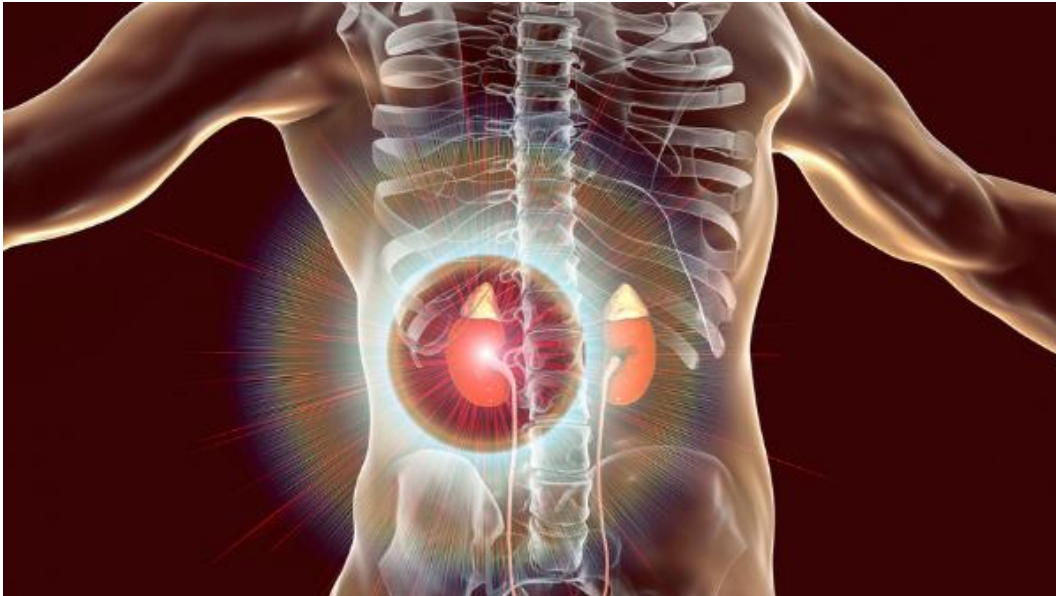
Kidney Deficiency: A Comprehensive Exploration. Kidney deficiency, a term deeply rooted in traditional medicine and finding resonance in modern healthcare, beckons us to explore the intricate landscape of renal health. This article aims to unravel the complexities surrounding kidney deficiency, shedding light on its significance, potential causes, and implications for overall well-being.

Renal Anatomy and Functions: Understanding kidney deficiency necessitates a journey into the anatomy and functions of these bean-shaped organs. From the microscopic nephrons responsible for filtration to the regulation of electrolytes and blood pressure, the article provides a foundational understanding of the kidneys' vital roles.

Traditional Perspectives and Modern Insights: Incorporating perspectives from traditional medicine, particularly Traditional Chinese Medicine (TCM) and Ayurveda, we delve into how kidney deficiency is conceptualized. The article then bridges traditional views with modern insights from nephrology, offering a comprehensive understanding that encompasses both holistic and clinical approaches.

Symptoms and Causes of Kidney Deficiency: Recognizing the signs of kidney deficiency is crucial for early intervention. This section explores common symptoms such as fatigue, changes in urine color, and fluid retention. Additionally, it discusses the diverse array of

factors contributing to kidney deficiency, ranging from genetic predispositions to lifestyle choices.



Preventive Measures and Dietary Considerations: Preventing kidney deficiency involves adopting proactive measures. The article outlines strategies for maintaining optimal renal health, including adequate hydration, a balanced diet, and regular exercise. A special focus on dietary considerations explores foods that support kidney function and those that may impact it negatively.

Navigating Kidney Health: A Holistic Approach: The article concludes by emphasizing the importance of adopting a holistic approach to kidney health. It encourages individuals to be proactive in understanding their renal well-being, fostering a balance between traditional wisdom and modern medical knowledge.

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