

# Non-Communicable Diseases Watch

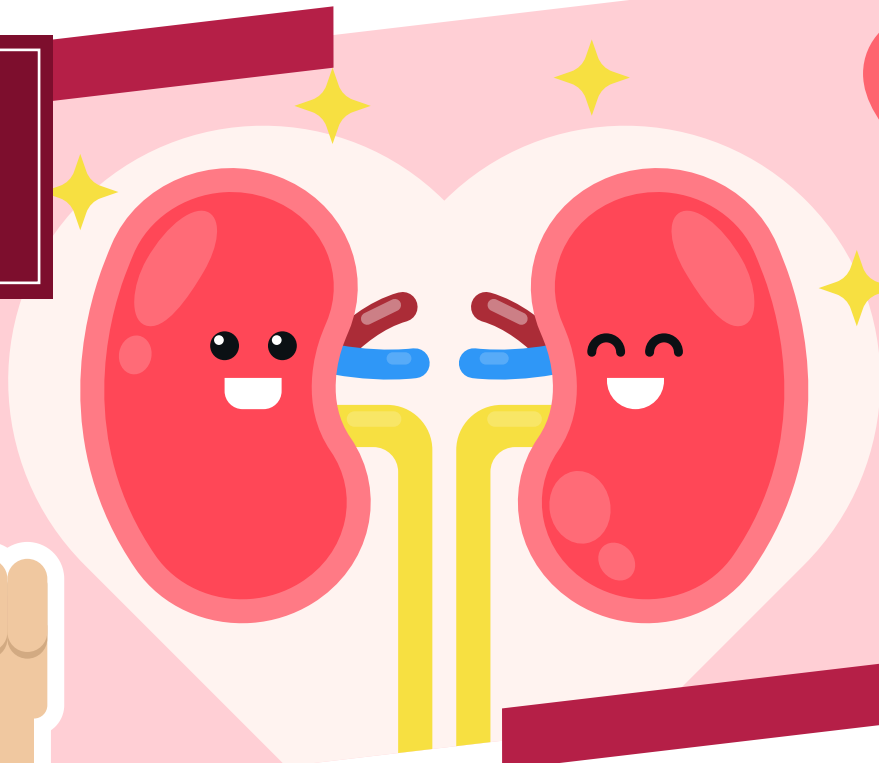
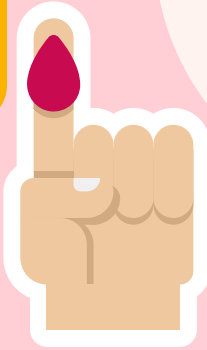


衛生防護中心  
Centre for Health Protection



衛生署  
Department of Health

MARCH  
2026



## Prevent Kidney Disease • Protect the Kidneys

### Key Messages

- Chronic kidney disease represents a major public health challenge. If not detected and treated promptly, it can lead to a range of complications and ultimately end-stage kidney failure that necessitates long-term kidney dialysis or kidney transplantation to sustain life. Beyond population growth and ageing, key drivers of increasing global burden of chronic kidney disease were the rising prevalence of type 2 diabetes, hypertension and obesity.
- In 2021, Hong Kong recorded 405 833 existing and 40 723 new chronic kidney disease cases among adults.
- Diabetes is the most common cause of chronic kidney disease: 1 in 6 diabetic patients project a rapid deterioration of renal function. Among the 1 471 new cases of kidney failure requiring replacement therapy in 2022, over half was related to diabetes.
- To protect kidney health and guard against chronic kidney disease, members of the public are urged to adopt a healthy lifestyle and actively control its risk factors including high blood glucose, high blood pressure and obesity.

# The Growing Threat of Chronic Kidney Disease

The kidneys are the primary organs of the human urinary system. Acting as the body's wastewater treatment plant, they filter up to 200 litres of blood each day to remove excess fluids and metabolic wastes. In addition, the kidneys also produce essential hormones

that regulate blood pressure, facilitate red blood cell production and activate vitamin D to enhance bone health. Once kidney function becomes impaired, it can trigger a cascade of health problems.

## KIDNEY FUNCTIONS

- **Maintain fluid balance in the body**
- **Remove metabolic waste from the body**
- **Regulate minerals and electrolytes in body fluids, such as sodium, potassium, calcium and magnesium**



- **Regulate blood pressure**
- **Facilitate red blood cell production**
- **Activate vitamin D to maintain bone health**

Chronic kidney disease is a growing public health challenge, strongly linked to other chronic illnesses. It involves a gradual, irreversible decline in kidney function and, if untreated, can cause complications such as cardiovascular diseases, anaemia, bone disorders, and ultimately end-stage kidney failure requiring dialysis or transplantation<sup>1</sup>. Apart from non-modifiable factors such as age and genetics, most cases of chronic kidney disease can be prevented. Known as a "silent killer," chronic kidney disease often shows no early symptoms. Many patients remain unaware until

severe kidney impairment is detected. Globally, only about 10% of high risk individuals know they have the condition<sup>2,3</sup>. Acknowledging that chronic kidney disease affects millions worldwide and is largely preventable through the management of modifiable risk factors, the World Health Organization (WHO) calls on Member States to enhance kidney health promotion and strengthen the prevention and control of kidney disease. If no action is taken, kidney disease is projected to become the fifth global leading cause of death by 2050<sup>4</sup>.

**Kidney Health Matters:**

**Be Aware, Control the Risks**

# Global Burden, Risk Factors and Management of Chronic Kidney Disease

## Global Burden and Risk Factors

In 2023, an estimated 788 million adults aged 20 years and older were living with chronic kidney disease worldwide, corresponding to a global age-standardised prevalence of 14.2% and representing an increase from 378 million cases and a prevalence of 13.7% in 1990. The disease claimed 1.48 million lives with the global age-standardised death rate of 26.5%, making it the ninth leading cause of death worldwide<sup>5</sup>. Meanwhile, chronic kidney disease was the 12<sup>th</sup> leading cause of disability-adjusted life years (DALYs, i.e. the number of years of life lost due to ill-health, disability or

early death), with an age-standardised rate of 769.2 per 100 000<sup>5</sup>. Beyond population growth and ageing, key drivers of increasing chronic kidney disease burden were the rising global prevalence of type 2 diabetes<sup>3,6</sup>, hypertension<sup>3,7</sup>, and obesity<sup>8</sup>. These conditions accounted for 31.9%, 24.5%, and 23.5% of global chronic kidney disease-related DALYs, respectively<sup>5</sup>. Poor eating habits accounted for 17.6%<sup>5</sup>, such as low consumption of fruits, vegetables and whole grains; high consumption of sodium, red meat, processed meat and sugar-sweetened beverages<sup>9</sup>.

## Kidney Replacement Therapy—Dialysis / Transplantation

In parallel with the growing number of kidney failure cases due to chronic kidney disease, the global demand for kidney replacement therapy has surged significantly. In 2023, an estimated 4.59 million people worldwide required replacement therapy, including 3.57 million undergoing kidney dialysis (peritoneal dialysis or haemodialysis) and 1.02 million with kidney transplants.

While the global prevalence of kidney dialysis per 100 000 population doubled from 21.7 in 1990 to 44.3 in 2023, the corresponding prevalence of kidney transplant rose by 57.5% from 8.1 to 12.7 per 100 000 population. Type 2 diabetes and hypertension were the leading causes of kidney failure requiring replacement therapy and together they accounted for 40.6% of global cases<sup>10</sup>.

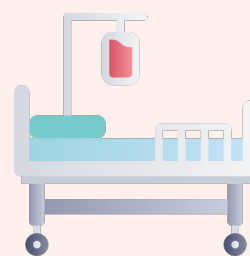
## A Global Epidemiological Snapshot of Chronic Kidney Disease, 2023



An estimated 788 million adults aged 20 years and older had chronic kidney disease



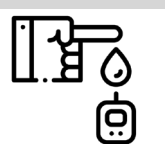
An estimated 1.48 million adults aged 20 years and older died from chronic kidney disease



Chronic kidney disease resulted in 769.2 aged-standardised disability-adjusted life years per 100 000 among adults aged 20 years and older

31.9%

High Fasting Blood Glucose



24.5%

High Systolic Blood Pressure



23.5%

High Body Mass Index



17.6%

Dietary Factors



Attributable fractions (%) of metabolic and dietary risk factors for chronic kidney disease-related disability-adjusted life years

# Chronic Kidney Disease and Its Healthcare Burden in Hong Kong

## Local Prevalence and Incidence of Chronic Kidney Disease

A territory-wide retrospective cohort study<sup>11</sup> reported that the number of existing chronic kidney disease cases among adults increased from 181 778 in 2010 to 405 833 in 2021. The overall prevalence per 100 000 persons increased from 3 065.8 to 6 296.4, with an average annual increase of 6.7%. In contrast, the number of new chronic kidney disease cases decreased from 41 684 to 40 723 over the same period, with an overall incidence per 100 000 persons decreased from 703.0 to 631.8, resulting in an average annual decrease of 2.0%. After adjusting for age, the age-standardised incidence of chronic kidney disease decreased by an average of 3.7% annually (Figure 1). Diabetes is the most common cause of chronic kidney disease; 1 in 6 diabetic patients project a rapid deterioration of renal function<sup>12,13</sup>.

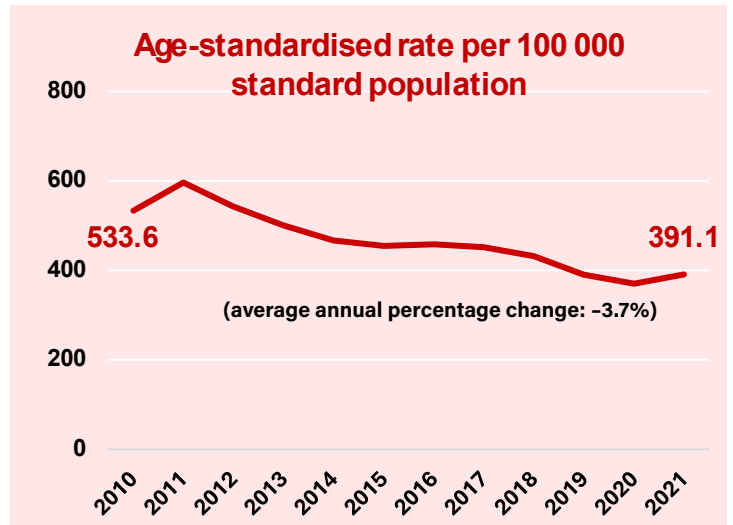


Figure 1: Incidence of chronic kidney disease among people aged 18 or above in Hong Kong

## Kidney Failure with Replacement Therapy

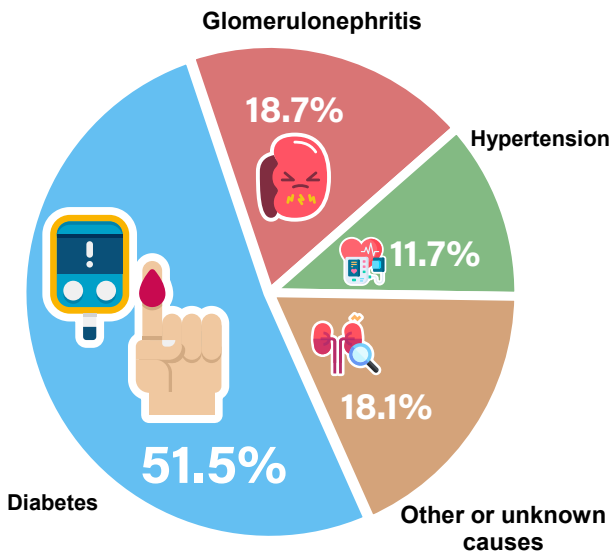


Figure 2: Causes of kidney failure with replacement therapy

According to the Hong Kong Renal Registry, both the number of new and pre-existing cases of kidney failure with replacement therapy substantially increased over the past 26 years. The total annual number of patients receiving replacement therapy for kidney failure increased from 3 337 (a point prevalence of 530 per million population (pmp)) in 1996 to 11 115 (1 492 pmp) in 2022. During the same period, the number of new patients enrolled in the kidney failure replacement therapy programme increased from 615 (an incidence of 95.1 pmp) to a record high of 1 471 (187.5 pmp)<sup>14-16</sup>. Diabetes was the leading cause of kidney failure with replacement therapy, accounting for 51.5% of incident cases in 2022 (Figure 2) and being one of the highest percentages worldwide<sup>15</sup>.

## Mortality from Chronic Kidney Disease

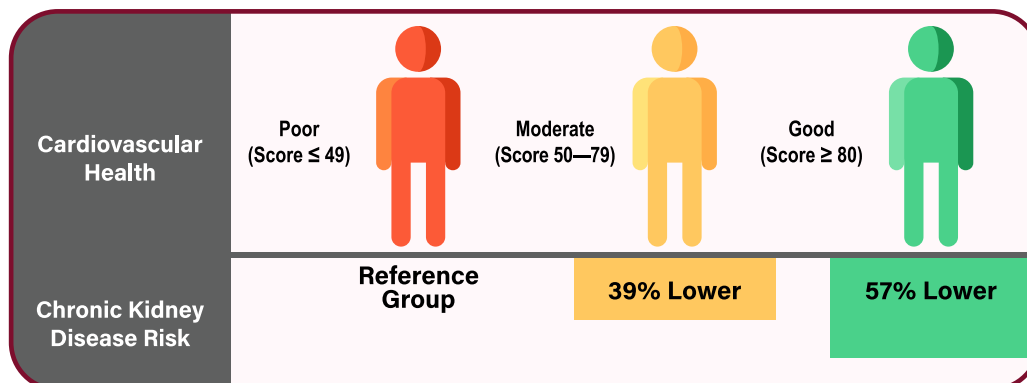
In 2024, nephritis, nephrotic syndrome and nephrosis are collectively ranked as the sixth leading cause of death in Hong Kong with 1 744 registered deaths. Among them, 1 226 (70.3%) were due to chronic kidney disease with a crude death rate of 16.3 per 100 000 population. After adjusting for age, the aged-standardised death rate due to chronic kidney disease

dropped from 8.5 per 100 000 standard population in 2004 to 5.5 per 100 000 standard population in 2024<sup>17</sup>. Such decline is likely attributed to the implementation of proactive public health strategies in disease surveillance and risk factor control, progress in medical technology and the establishment of well-structured dialysis services<sup>11,18</sup>.

# Live Healthily, Manage Risks Proactively to Protect Kidney Health

Healthy living plays a vital role in preventing chronic kidney disease by enhancing kidney function and guarding against key risk factors<sup>19, 20</sup>. A prospective study of more than 147 900 adults in the United Kingdom measured cardiovascular health by a score ranging from 0–100 based on eight key metrics,

including healthy diet, regular physical activity, non-smoking status, sufficient sleep, healthy body weight, and optimal levels of blood pressure, blood glucose, and blood lipids. Results showed that better cardiovascular health was linked to a reduced risk of chronic kidney disease<sup>21</sup>.



## Eight Essential Steps to Healthy kidneys

### Keep blood glucose in check

Adults aged 45 or above are recommended to have blood glucose checked regularly. More frequent testing is recommended when cardiovascular risk factors are present<sup>22</sup>.



### Maintain an optimal body weight

Chinese adults in Hong Kong should aim for a BMI between 18.5 and less than 23.0. Men should keep their waist circumference below 90 centimetres (cm), while women should keep theirs below 80 cm<sup>24</sup>.



### Eat a balanced diet with proper hydration

Following a healthy dietary pattern is associated with a 30% lower chronic kidney disease risk<sup>26</sup>.

Eat according to the key principles of a healthy diet with at least 5 daily servings of fruits and vegetables and limit salt consumption<sup>27</sup>.



### Do not smoke

Smoking disrupts blood circulation and reduces oxygen supply to the kidneys, thereby compromising their ability to filter waste and elevating chronic kidney disease risk.

Smoking cessation has been shown to significantly lower the risk of developing chronic kidney disease<sup>30</sup>. Smokers should quit.



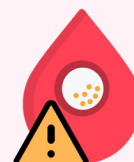
### Keep blood pressure in check

Adults aged 18 or above are recommended to have their blood pressure checked regularly. More frequent checking is recommended when cardiovascular risk factors are present<sup>23</sup>.



### Keep blood lipids in check

Adults aged 50–75 are recommended to screen for hyperlipidaemia regularly. More frequent testing is recommended when cardiovascular risk factors are present<sup>25</sup>.



### Be physically active

Increased physical activity is associated with a 9% lower chronic kidney disease risk<sup>28</sup>.

Adults should do at least 150–300 minutes of moderate-intensity physical activity (such as brisk walking) or 75–150 minutes of vigorous-intensity physical activity (such as jogging) throughout the week<sup>29</sup>.



### Ensure adequate sleep

Good sleep helps maintain proper kidney function. Insufficient sleep is associated with higher chronic kidney disease risk<sup>31</sup>.

Adults are generally encouraged to get 7–8 hours of sleep each night to support optimal physical and mental well-being<sup>32</sup>.





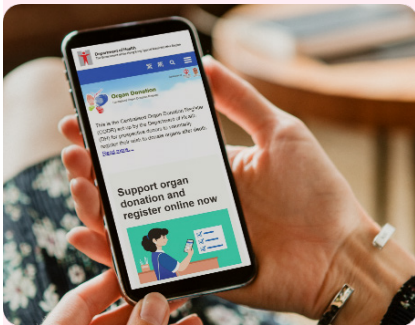
## Kidney Donation - A Philanthropic Spirit of Giving

Kidney transplant recipients enjoy better quality of life than dialysis patients, with fewer daily restrictions<sup>33</sup>. Since Hong Kong's first successful transplant in 1969, over 3 500 renal patients have received functioning grafts as at 31 December 2022— 3 058 transplants from brain-dead donors and 457 from healthy living donors<sup>15</sup>. Yet, demand far exceeds supply. In the past 5 years, about 300 kidneys were donated. As at 31 December 2025, there were 2 571 patients with advanced kidney disease waiting for a kidney transplant<sup>34</sup>.

A successful organ donation programme greatly relies on community support. To facilitate prospective voluntary donors to express their wish to donate organs after death, the Department of Health has set up the Centralised Organ Donation Register (CODR), ensuring

that such intentions are recorded reliably and securely. The CODR will enable medical personnel responsible for organ donation to know upon the patients' death about their wish to donate organs, and the bereaved family to acknowledge the deceased's wish to rekindle the lives of others.

Everyone can help promote organ donation in the community via 'Organ Donation 3S'; that is, Sign-up, Speak-out and Spread-out. For more information about organ donation, please visit the designated website at [www.organdonation.gov.hk](http://www.organdonation.gov.hk) or the "Organ Donation at HK" Facebook page at [www.facebook.com/organdonationhk](http://www.facebook.com/organdonationhk).



### Sign-up

You can register your wish to donate organs at the CODR ([www.codr.gov.hk](http://www.codr.gov.hk)).



### Speak-out

Speak out your wish to your family and friends.



### Spread-out

Encourage your family and friends to support organ donation and rekindle the lives of those in need.

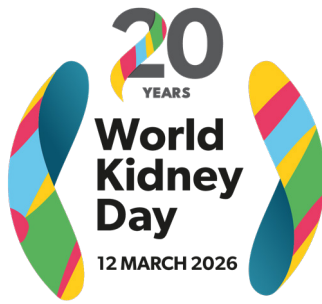


***Let's work together to protect kidney health and establish a culture to support organ donation in the society!***



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**World Kidney Day** is a global campaign that aims to raise awareness of the importance of the kidneys to our health.

The theme for the 2026 campaign is **Kidney Health for All** – Caring for People, Protecting the Planet. It highlights climate-related risks—air pollution, heat stress, dehydration, and extreme weather events—compound the risks of chronic kidney disease and accelerate its progression. At the same time, treatments for end-stage kidney disease are resource-intensive and generate greenhouse gas emissions, with far-reaching implications for public health and communities worldwide. The campaign calls for action from reducing the environmental impact of dialysis to addressing the risks that climate change poses to kidney health, while keeping the care of people living with kidney disease at its core.

For more information about World Kidney Day 2026, please visit <https://www.worldkidneyday.org/>.



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