

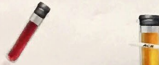
What is Chronic Kidney Disease?

Chronic kidney disease (CKD) is a common long-term condition, usually affecting the older generation.

A diagnosis of CKD means your kidneys are not working as effectively as they used to. The older you are the more likely you will have a degree of CKD.

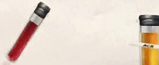
CKD doesn't always cause symptoms especially in the early stages and so someone only becomes aware of problems when the level of kidney function has fallen to low levels.

Therefore it is blood and urine tests that are used to diagnose the problem in the early stages.

A red blood test tube and a yellow urine test tube are shown on a white background. The red tube is on the left, tilted slightly to the right, with a black cap at the top. The yellow tube is on the right, standing upright, with a black cap at the top. Both tubes have white labels near the bottom.

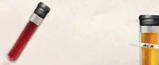
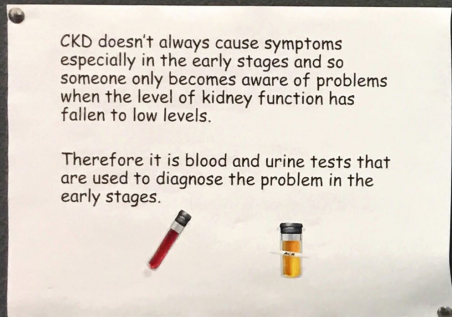
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How common is CKD?

It is estimated that about one in five men and one in four women between the ages of 65 and 74 has some degree of CKD.

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Why do so many people have CKD?

Your kidneys are remarkable organs. They work every hour of every day filtering blood to take out waste and converting it into urine. They do a number of other things too (see below) and they never stop working - they use 25% of your body's energy to do their job.

Many of us live a lot longer than we used to and so we are at the mercy of illnesses and conditions as we age. Chronic kidney disease can occur when the kidneys are less able to do their work long term. This can be caused by damage to the kidneys from other conditions - most often diabetes and high blood pressure.

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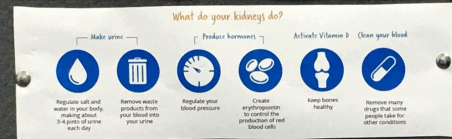
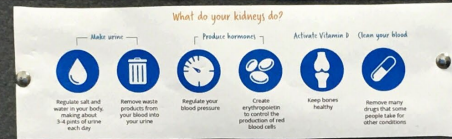
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They sit in your lower back under the bottom ribs
Only 50% of the population know that kidneys produce urine

Most people have two kidneys
They are about the size of your clenched fist, the width of your thumb and weigh about 150g and are shaped like kidney beans

They filter your blood minute of the day
Your blood goes through kidneys 40 times in 24 hours. There are 140 miles of tubes and a million filters in your kidneys

are the hardest working organs in your body
They use 25% of the blood from every heartbeat

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How to keep your kidneys healthy

Lead a healthy lifestyle

- Keep hydrated
- Don't smoke
- Keep your weight down
- Exercise regularly
- Eat a healthy diet including fruits, vegetables and fish
- Reduce your intake of salt, processed foods and high sugar drinks

If you take regular medication ask your pharmacist how it may affect your kidneys

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What are the symptoms of kidney problems?

There may be **no pain or reduction in urine output**. Kidney problems are usually **diagnosed by a simple blood or urine test** but some conditions that present as **HT or CKD or ADL** are treated regularly to **avoid problems as soon as possible**.

- **Fatigue** • **Frequent headaches** • **Loss of appetite** • **These problems** • **Buffy skin**
- **Nausea or vomiting** • **Swelling or numbness of the hands or feet** • **Feeling urine more urgently as nights or days other than usual** • **Darkening / lightening of the skin** • **Muscle cramps**

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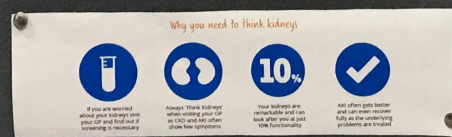
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



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Why you need to think kidneys





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



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



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



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Treating CKD

While there is no cure for chronic kidney disease, treatment can slow or halt the progression of the disease and can prevent other serious conditions developing. People with CKD may live an active and full life.


In more severe cases CKD can cause the kidneys to fail. This is known as known as established renal failure (ERF) or end-stage kidney disease when the usual functions of the kidneys drop to critical levels. To survive, the individual may need to have artificial kidney treatment, either through dialysis or with a kidney transplant.

A stylized illustration of a kidney and its associated blood vessels. The kidney is depicted in a light beige color with a darker beige outline. It is connected to two large, thick, cylindrical blood vessels: one is blue and the other is red, representing the renal artery and vein respectively. The vessels are shown in a 3D perspective, extending from the kidney towards the bottom right of the frame. The background is a light beige color with a subtle, darker beige circular pattern behind the kidney illustration.

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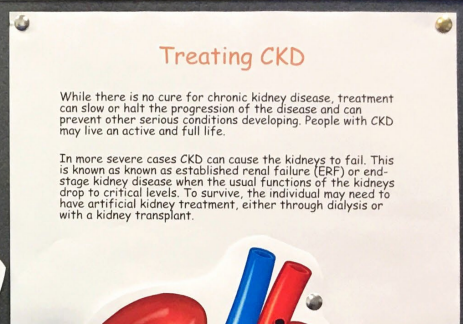
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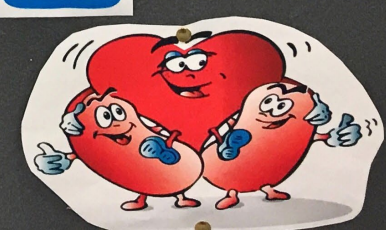
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A stylized illustration of a kidney and its associated blood vessels. The kidney is depicted in a light beige color with a darker beige outline. It is connected to two large, thick, cylindrical blood vessels: a blue one (representing oxygenated blood) and a red one (representing deoxygenated blood). The vessels are shown in a 3D perspective, with the blue vessel in the foreground and the red vessel slightly behind it. The background is a light beige color with a subtle, darker beige circular pattern.

- The following lifestyle measures are usually recommended for people with kidney disease:
- stop smoking if you smoke
- eat a healthy, balanced diet
- restrict your salt intake to less than 6g (0.2oz) a day
- do regular exercise - aim to do at least 150 minutes a week
- moderate your alcohol intake so it's within the recommended limits of no more than 14 alcohol units a week
- lose weight if you're overweight or obese
- avoid over-the-counter non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen, except when advised to by a medical professional - these medicines can harm your kidneys if you have kidney disease

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(Almost) everything you need to know about your kidneys



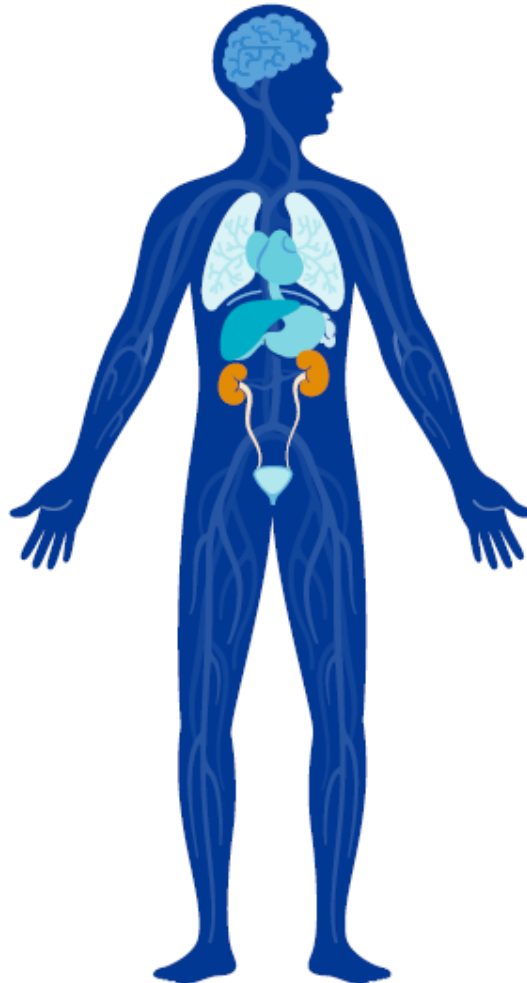
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They are the hardest working organs in your body

They use 25% of the blood from every heartbeat

What do your kidneys do?

Make urine



Regulate salt and water in your body, making about 3-4 pints of urine each day



Remove waste products from your blood into your urine

Produce hormones



Regulate your blood pressure



Create erythropoietin to control the production of red blood cells

Activate Vitamin D



Keep bones healthy

Clean your blood



Remove many drugs that some people take for other conditions

How to keep your kidneys healthy

Lead a healthy lifestyle



Keep hydrated



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Exercise regularly



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Reduce your intake of salt, processed foods and high sugar drinks

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What causes kidney problems?

One of the most common causes of kidney disease is diabetes

But there are many others including genetic and inflammatory conditions, blockages of urine flow and high blood pressure that can be a cause and/or consequence of kidney problems.

About 1 in 10 people has some form of Chronic Kidney Disease (CKD)

CKD is a long term loss of kidney function which can be harmful. Not all CKD gets worse but it can lead to kidney failure. CKD also increases the risk of heart attack or stroke and increases the risk of acute kidney injury.

Acute Kidney Injury (AKI) is serious and can occur when a person is unwell

AKI is a quick reduction in kidney function. Finding AKI in the early stages is very important as it can make other health problems more difficult to treat.

Of emergency admissions to hospital 1 in 5 people have AKI

AKI can occur after major surgery or with heart problems. Up to 100,000 deaths in hospital in the UK each year are associated with AKI. It causes harm and suffering and costs a lot.

Why you need to think kidneys



If you are worried about your kidneys visit your GP and find out if screening is necessary



Always 'Think Kidneys' when visiting your GP as CKD and AKI often show few symptoms



Your kidneys are remarkable and can look after you at just 10% functionality



AKI often gets better and can even recover fully as the underlying problems are treated

What are the symptoms of kidney problems?

In the early stages of kidney disease there are often no symptoms

There may be no pain or reduction in urine output. Kidney problems are found by a simple blood or urine test so we recommend that people at risk of CKD or AKI are tested regularly to spot problems as soon as possible.

Symptoms of more serious kidney problems can include:

- Tiredness • Frequent headaches • Loss of appetite • Sleep problems • Itchy skin
- Nausea or vomiting • Swelling or numbing of the hands or feet • Passing urine more (especially at night) or less often than usual • Darkening / lightening of the skin • Muscle cramps

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CKD doesn't always cause symptoms especially in the early stages and so someone only becomes aware of problems when the level of kidney function has fallen to low levels.

Therefore it is blood and urine tests that are used to diagnose the problem in the early stages.



How common is CKD?

It is estimated that about one in five men and one in four women between the ages of 65 and 74 has some degree of CKD.

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Treating CKD

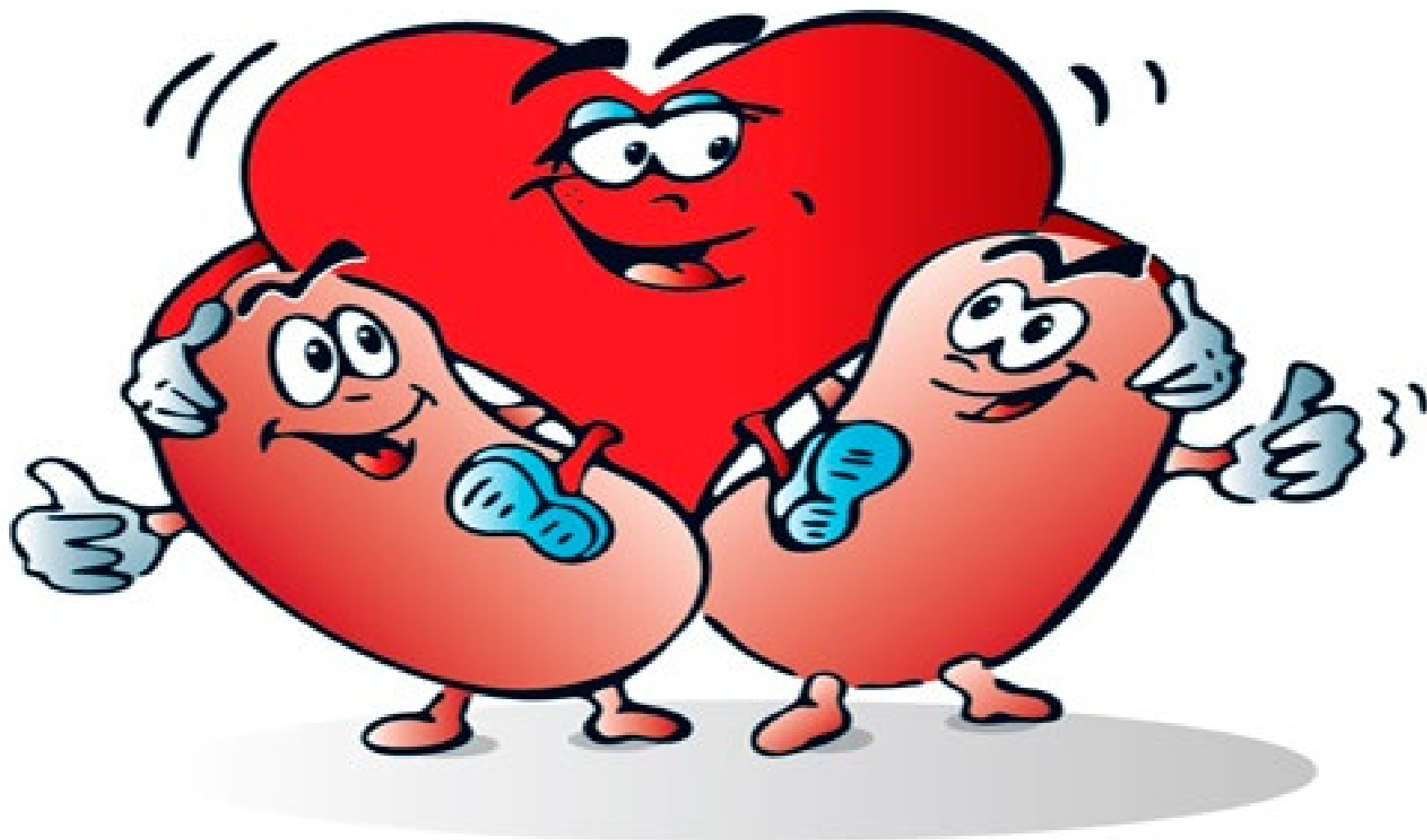
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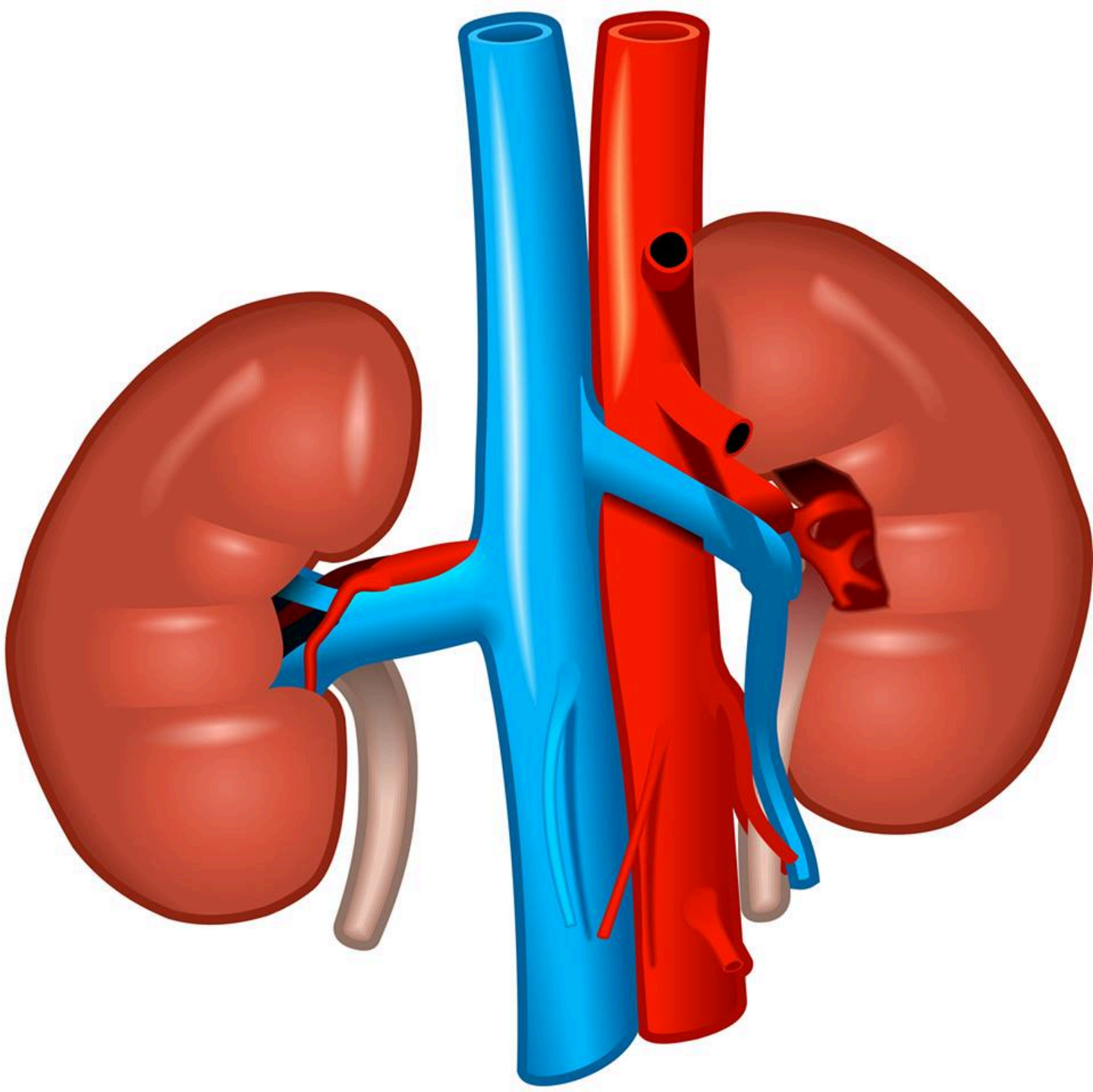
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<i>The numbers in this table indicate recommended frequency of monitoring per year</i>		ACR categories (mg/mmol), description and range		
		A1 <3 Normal to mildly increased	A2 3-30 Moderately increased	A3 >30 Severely increased
GFR categories (ml/min/1.73m ²), description and range	G1 ≥ 90 Normal and high	≤ 1	1	≥ 1
	G2 60-89 Mild reduction related to normal range for a young adult	≤ 1	1	≥ 1
	G3a 45-59 Mild-moderate reduction	1	1	2
	G3b 30-44 Moderate-severe reduction	≤ 2	2	≥ 2
	G4 15-29 Severe reduction	2	2	3
	G5 <15 Kidney failure	4	≥ 4	≥ 4