



Who anaemia of chronic kidney disease affects

Anaemia of CKD & Me is a series of guides for people with chronic kidney disease (CKD). They have been created with patient organisations and a renal anaemia nurse to make sure they cover information that may be important to you. This guide tells you about who is affected by anaemia, a symptom of CKD. This information can help you understand whether you may be at risk of anaemia and talk about it with your doctor or nurse.

What puts you at higher risk of getting anaemia of CKD?

Anaemia is a condition when you don't have enough healthy red blood cells to carry oxygen around the body. It affects about 1 in 5 people with CKD.

Some people with CKD are more likely to develop anaemia than others. You are more likely to get anaemia if you:



Are aged 60 or over



Have CKD stages 3-5



Are female



Have high blood pressure (hypertension)



Have diabetes



Are of Black or Hispanic ethnicity

Why do these factors increase your risk of anaemia of CKD?



Age 60 or over

Anaemia of CKD is more common as people get older especially after 60. There are a few possible reasons for this. Often, your haemoglobin levels (the part of a red blood cell that carries oxygen) drop as you age. Iron becomes harder for your body to absorb when you get older too. This can be down to more inflammation in your body or changes to your sex hormones (testosterone and oestrogen).

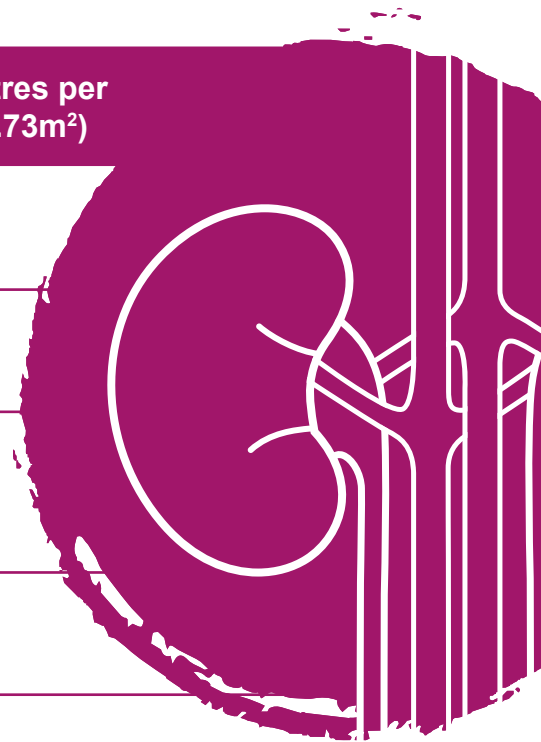


CKD stages 3-5

CKD is divided into 5 'stages', based on the health of your kidneys. The stages range from stage 1, which is mild kidney damage, to stage 5, which is kidney failure. Anaemia of CKD is most common for people with CKD stages 3-5. This is because anaemia usually develops when the kidneys become more damaged. But some people develop anaemia when their CKD is in the earlier stages for other reasons. Kidney damage makes it harder for your body to absorb iron from your food, make enough of a hormone called erythropoietin (EPO), and make enough red blood cells.

Because CKD is a gradually progressive disease, it means that your kidneys will slowly lose function over time. Your doctor can measure the function of your kidneys by looking at how quickly they are able to remove creatinine (a waste substance) from your blood. This is measured with a blood test called 'estimated glomerular filtration rate' (eGFR). The table shows how your kidney function is measured.

Stage of CKD	Description	eGFR (millilitres per minute per 1.73m ²)
Stage 1	Kidneys are slightly damaged but working normally	Over 90
Stage 2	Kidneys are mildly damaged and working slightly less well	60-89
Stage 3	Kidneys are moderately damaged and working a lot less well	30-59
Stage 4	Kidneys are severely damaged and not working well	15-29
Stage 5	Kidney failure	Less than 15 (or dialysis)



Being female

If you are female and have CKD, you are twice as likely to get anaemia than someone with CKD who is male. Women are also sometimes more at risk from anaemia because of low iron. This could be because of blood loss from heavy periods (menstruation) or childbirth.



Diabetes

Diabetes can cause damage to your kidneys because of the chronic inflammation associated with diabetes. This leads to CKD. Anaemia is sometimes more severe and happens earlier in people whose CKD is linked to diabetes.



High blood pressure

More than half of people with CKD also have high blood pressure. High blood pressure makes it more likely that your CKD becomes worse because it damages the blood vessels in your kidneys. Having later-stage CKD means you have a higher risk of getting anaemia and if anaemia is not managed then it can increase your risk of high blood pressure (hypertension) and heart failure.



Being Black or Hispanic

Your ethnicity may affect your risk of anaemia of CKD. Some research suggests that anaemia of CKD is more common in people of Black ethnicity than in people of White, Indian or Asian ethnicity. It is also more common in people of Hispanic ethnicity than people of White ethnicity. The reasons why are not completely clear.

How to reduce your risk of getting anaemia

It might be difficult to completely avoid anaemia of CKD, but you can work with your healthcare team to manage your CKD and stop it from getting worse. This may help to reduce your risk of getting anaemia.

Eating a specific diet can help you get the right vitamins and minerals your body needs to make red blood cells. Your healthcare team might suggest eating certain foods. This guidance will depend on your individual needs. Always talk with your doctor or dietitian before making any changes to your diet.

For recipes approved by the Renal Nutrition Specialist Group (UK) that support health kidney function search for the [‘Kidney Kitchen’](#) on the Kidney Care UK website.

If you think you have any symptoms of anaemia, it is important to tell your doctor as soon as you can.



Ask your doctor or nurse these questions:

- Am I at higher risk of anaemia?
- Is there anything I can do to reduce my risk of anaemia?
- Have I ever been tested for anaemia? If so, when?
- If I have anaemia, what lifestyle and medical treatments are there to help manage this?



The other guides in the Anaemia of CKD & Me series are:

- About anaemia of chronic kidney disease
- Symptoms of anaemia and chronic kidney disease
- Getting tested for anaemia of chronic kidney disease
- Managing anaemia of chronic kidney disease
- Anaemia of chronic kidney disease and your body and mind
- Symptoms checker for anaemia and chronic kidney disease

Word checker

Red blood cells:	One of the types of cells that make up your blood. They carry oxygen from your lungs to the rest of your body.
Haemoglobin (Hb):	A protein found inside red blood cells that allows them to carry oxygen. Your body needs iron to make Hb.
Iron:	Iron is a metal, and in very small amounts it is also an essential mineral your body needs to function. The body gets iron from the food that you eat and by recycling dead red blood cells in your body.
Iron deficiency:	Is when the body isn't getting enough iron to make healthy red blood cells, which leads to anaemia.
Erythropoietin (EPO):	A hormone that your kidneys make that tells your bone marrow to make red blood cells.
Low EPO:	When the body isn't making enough EPO to make enough healthy red blood cells. When your kidneys are damaged they make less EPO, which can lead to anaemia.
Estimated glomerular filtration rate (eGFR):	A test to measure how quickly your kidneys are removing waste substances from your blood. This tells you how healthy your kidneys are. It is used to diagnose CKD.
(creatinine):	A waste substance that your kidneys normally remove from your blood.

For more information visit the Astellas website at:

www.astellas.com/eu/patient-focus/patient-partnerships.

Please contact us at eupatientpartners-sm@astellas.com if you need this document in an alternative format. References are also available upon request.

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