

# COMMON MEDICINES USED IN CKD CHRONIC KIDNEY DISEASE



## COMMON MEDICINES USED IN CKD

This information is intended to help you understand why you need to take your medicines. There are multiple medicines that are used to control the symptoms related to CKD. You may need to take one or more than one medicine to help control these. How many medicines you are prescribed will vary depending on how the symptoms affect you.

What are the most common symptoms of CKD?

The most common symptoms of CKD are:

Symptoms	Brief explanation of cause
High blood pressure	High blood pressure can be the cause of kidney problems or the result of kidney problems due to the retention of fluid and salt.
Oedema	This is due to the kidneys not being able to remove enough fluid from the body and therefore it can accumulate leading to swelling.

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Anaemia	A low red blood cell count can be due to reduced erythropoietin production (a hormone produced by the kidney)
Fatigue	Can be due to anaemia, or the build up of toxins within the blood stream due to the kidney not being able to remove them.
Itching	Due to the build up of toxins within the blood stream due to the kidneys not being able to remove them. It can also be caused by calcium and phosphate product being deposited under the skin.
Weak bones	Due to reduced vitamin D activation and over stimulation of the parathyroid gland. Vitamin D helps to maintain bone strength
Low blood calcium	Due to reduced vitamin D activation. Vitamin D helps you to absorb calcium from your diet.

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High blood phosphate

Mainly due to reduced excretion of phosphate by the kidney.

Nausea and vomiting

Mainly due to the build up of uraemic toxins within the body. Urea and other waste products are removed by the kidneys and these accumulate when the kidneys are not working as well.

Reduced appetite

Is mainly due to the build up of uraemic toxins within the body. Urea and other waste products are removed by the kidneys and these accumulate when the kidneys are not working as well.

Taste disturbances

Mainly due to the build up of uraemic toxins within the body. Urea and other waste products are removed by the kidneys and these accumulate when the kidneys are not working as well. These disturbances are often described as causing a metallic taste.

Insomnia (poor sleep)

Mainly due to the build up of uraemic toxins within the body. It can also be linked with itching.

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General information relating to the use of prescribed medications. There are some important points to be aware of in order to make the most of your medicines and avoid problems:

- Read the leaflet that comes with every medicine. Keep it handy in case you need to refer to it once you start taking your medicine.
- Do not take any medicines you can buy 'over the counter' without checking with your Community Pharmacist or doctor first. Some of these medicines can interact with your prescribed treatment. This same advice applies to herbal medicines and dietary supplements that can be bought from health food shops .
- Do not share your medicines with anyone else, they are prescribed just for you and may cause harm to someone else.
- Do not take anyone else's medicines these are prescribed for them and may cause you harm.
- Make sure you store your medicine in the correct way.
- Some need to be refrigerated and you will be advised of this. All medicines need to be stored in a cool dry place out of the reach of children.
- Do not hoard medicines; take any unused or discontinued medicines to your local chemist to be disposed of correctly.

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### BLOOD PRESSURE MEDICATION

#### YOU HAVE BEEN TOLD YOU HAVE HIGH BLOOD PRESSURE, WHAT IS THIS?

Blood pressure is often measured in clinic. A normal blood pressure reading is below 140/90 mmHg. In renal disease the target is often lowered preferably  $\leq 130/80$ mmHg, in case of diabetes. People who have persistent readings above these numbers are considered to have high blood pressure. High blood pressure is common in people with CKD due to the build up of salt and fluid within the body.

#### WHAT IS THE PROBLEM WITH HAVING HIGH BLOOD PRESSURE?

High blood pressure causes damage to the kidneys. Uncontrolled, it can lead to worsening of your kidney disease.

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### WHAT MEDICINES WILL YOU NEED TO TAKE?

There are many medicines used to control high blood pressure. The type and dose used will depend on you as an individual and how well you tolerate them. If you are prescribed blood pressure tablets and have concerns discuss these with your doctor, nurse or pharmacist.

### ANAEMIA MEDICATION

### YOU HAVE BEEN TOLD YOU HAVE ANAEMIA;

### WHAT IS ANAEMIA?

Anaemia is when you have a low number of red blood cells. Red blood cells help carry oxygen around the body. Low numbers of red blood cells can make you feel tired and cold.or discontinued.

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### IRON TABLETS

#### YOU HAVE BEEN PRESCRIBED IRON TABLETS; WHAT ARE THESE USED TO TREAT?

Iron tablets are used to help to correct anaemia, a common problem amongst people with kidney disease. If you are anaemic, iron tablets will be prescribed for you by the kidney doctor or nurse. The dose for oral iron will depend on the brand you are prescribed (e.g. Ferrous sulphate and Ferrous gluconate).

#### WHAT ARE THE MAIN SIDE EFFECTS OF IRON TABLETS?

The main side effect of iron tablets is irritation to the gut such as nausea, vomiting, stomach pain, diarrhoea (or constipation) If you are affected by any of these tell the doctor or nurse booking after you. It also causes blackening of stools.



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### HOW SHOULD YOU TAKE YOUR IRON TABLETS?

It is important to know when to take your iron tablets as certain things can stop them working as well as they should. For example:

- Do not take your iron tablets at the same time as your phosphate binders, sodium bicarbonate, antacids or some antibiotics.
- Do not take your iron tablets with a cup of tea.
- Avoid taking them at meal times with food.

### FOLIC ACID

#### WHAT IS FOLIC ACID USED TO TREAT?

You may be prescribed a tablet called folic acid. Folic acid is an essential vitamin needed to help make red blood cells. The usual dose for folic acid is 5mg once a day.

#### WHAT ARE THE MAIN SIDE EFFECTS OF FOLIC ACID?

Folic acid can make some people feel nauseas; however, this is very rare.

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### HOW SHOULD YOU TAKE FOLIC ACID?

Folic acid can be taken at any time with or without food.

### ERYTHROPOTEIN STIMULATION AGENTS

#### WHAT IS AN ERYTHROPOIESIS STIMULATING AGENT (ESA)?

Normal functioning kidneys produce a hormone called erythropoietin in response to a reduced level of oxygen in the blood. As your kidney function declines your kidneys cannot produce as much of this hormone and you can become anaemic (low levels of red blood cells). ESAs are used to help replace this hormone and stimulate red blood cell production.

#### HOW ARE ESAs GIVEN?

ESAs are normally given as an injection into the skin (subcutaneously). It will be prescribed by the hospital for you. Some preparations are longer lasting and may be given weekly, every two weeks or once a month. It will depend on the type of ESA available in your kidney clinic/unit. If you receive haemodialysis the ESA will be given during dialysis into the machine lines by the dialysis unit staff up to three times a week.

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### WHAT ARE THE SIDE EFFECTS OF ESAs?

The most common side effects are pain at the injection site and flu like symptoms. If you experience any side effect please discuss this with your nurse or doctor.

### PHOSPHATE BINDERS

#### WHAT IS A PHOSPHATE BINDER?

Healthy kidneys will remove excess phosphate which the body does not need. If you have a kidney problem the phosphate levels can build up in your blood stream. Too much phosphate in the blood can lead to itching and upset the balance of calcium in the body. This can lead to a condition called hyperparathyroidism, which can cause thinning of the bones. The body needs phosphate, which it gets from the food we eat. A low phosphate diet can reduce the amount of phosphate available for the body to absorb, your doctor and nurse or dietician will advise you on this.

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### HOW DOES A PHOSPHATE BINDER WORK?

Sometimes it is necessary to take medicines that react with phosphate in the food, trapping it in the stomach, so it cannot be absorbed. These medicines are called phosphate binders. Taking phosphate binders means your body has less phosphate to deal with. If you have dialysis they give the dialysis more chance of removing excess phosphate. Several types of medicines are used as phosphate binders, these include:

- Aluminium hydroxide
- Calcium carbonate
- Calcium acetate
- Calcium acetate & Magnesium carbonate
- Sevelamer
- Lanthanum Carbonate

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Which type you take depends on several things including results of your blood tests and whether you can tolerate the medicines.

### HOW SHOULD YOU TAKE YOUR PHOSPHATE BINDER?

The following table provides some information:

Phosphate binder	Comment
Aluminium hydroxide	This medicine must be taken with the first few mouthfuls of food. It can cause constipation.
Calcium carbonate	This can be sucked or chewed before or with meals and is used when your calcium levels are low. Calcium can cause constipation.
Calcium acetate	Less calcium is absorbed with this preparation so it may be used if your calcium levels are normal. Should be taken during meals.

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Calcium acetate  
and  
Magnesium  
carbonate

Very little calcium is absorbed with this preparation so it may be used if your calcium levels are normal. Should be taken during meals. It may cause diarrhoea.

Sevelamer

This is not absorbed and acts like a sponge mopping up phosphate in the gut. It should be taken with meals. It can cause diarrhoea in some people.

Lanthanum  
Carbonate

This should be taken with the last few mouthfuls of each meal. The tablets should be chewed thoroughly and not swallowed whole.

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### YOU HAVE BEEN PRESCRIBED ALFACALCIDOL, WHAT IS THIS FOR?

This is a medicine which acts like vitamin D. The kidneys are involved in making vitamin D. Vitamin D is needed for healthy bones and also to help control the levels of calcium and phosphate in the blood. As your level of kidney function falls the ability to make this vitamin is lost, so you need to replace it by taking capsules called alfacalcidol. Some people with CKD can develop a condition called hyperparathyroidism. This can upset the calcium and phosphate levels in the blood and affect the bones if not treated. You may also need alfacalcidol to control this. The nephrologist (kidney doctor) will prescribe this drug for you should you need it, either as high dose once or twice a week or daily depending on your blood results. If your calcium levels are very low you may be prescribed both alfacalcidol and a calcium supplement. It is important that you have regular blood tests if you are taking this to check that your calcium doses are not too high and that you are receiving the correct dose. These will be arranged by the kidney doctor or nurse.

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### WHEN SHOULD YOU TAKE YOUR SODIUM BICARBONATE?

Sodium bicarbonate should not be taken at the same time as some coated medicines as it removes the protective covering. Do not take at the same time as iron tablets as it stops the iron being absorbed. A time gap of 2 hours between oral sodium bicarbonate and other medications is recommended when possible.

### WHAT ARE THE SIDE EFFECTS OF SODIUM BICARBONATE?

The main side effects of sodium bicarbonate are wind and bloating.



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### WHEN SHOULD YOU TAKE ALFACALCIDOL?

This can be taken once a day with or without food.

### WHAT ARE THE SIDE EFFECTS OF ALFACALCIDOL?

The most common side effect is fatigue and nausea.

### YOU HAVE BEEN PRESCRIBED SODIUM BICARBONATE, WHAT IS THIS FOR?

The kidneys help to neutralise and remove excess acid that collects in the blood. When there is reduced kidney function there is a risk that the acid can accumulate. It is used to stop the blood becoming acidic by converting any excess acid in the blood to harmless products. This medicine contains the same ingredient used in cooking.

### HOW MUCH SODIUM BICARBONATE SHOULD YOU TAKE?

The dose you receive depends on your most recent blood test. This medicine is well tolerated but can taste salty.

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### WHEN SHOULD YOU TAKE YOUR SODIUM BICARBONATE?

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#### KEY POINTS TO REMEMBER

- The medicines prescribed for you are to control the symptoms related to your kidney disease.
- Know your medicines (e.g. indication, name, dose, time, how to take them and possible side effects).
- Take your medicines as prescribed (dose, time and duration).
- The type and dose of some medicines depend on several things, e.g. results of your blood tests and your tolerance to the medicines.
- If you experience any side effect, tell your doctor or nurse about it.
- Talk to your doctor or nurse about any concern or doubt that you may have with your medicines.

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