CHRONIC KIDNEY DISEASE AND ANAEMIA

Fatigue is often dismissed as a symptom, but when it's driven by kidney disease induced anaemia, it is a debilitating daily hurdle.

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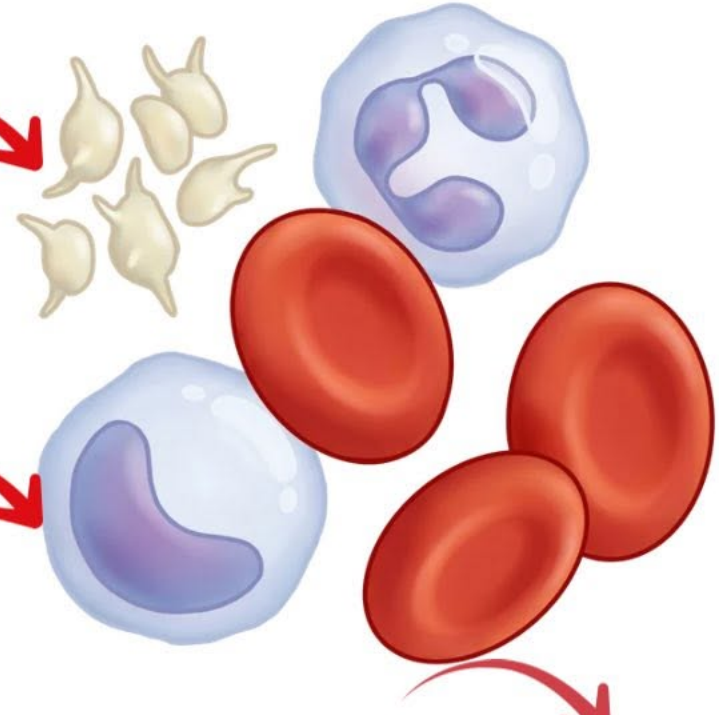
What is Anaemia

We have three types of blood cells



1. White blood cells fight off infection
2. Platelets that help to clot blood.
3. Red blood cells used to carry oxygen from the lungs to the rest of the body

If you don't have enough healthy red blood cells OR enough haemoglobin (iron rich protein) to carry essential oxygen to tissues and organs, you have anaemia

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Think of red blood cells as a delivery fleet;

When you have anaemia, the fleet is either running short on trucks (low red blood cells)

OR the trucks aren't fully loaded, leaving you feeling constantly drained (not enough haemoglobin).

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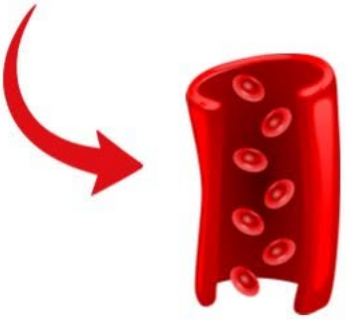
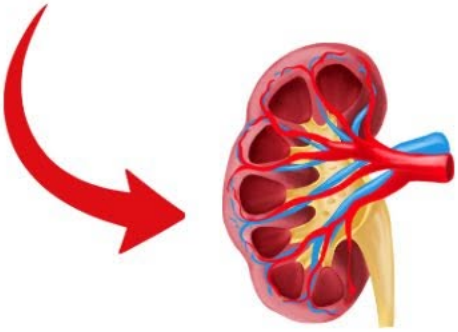
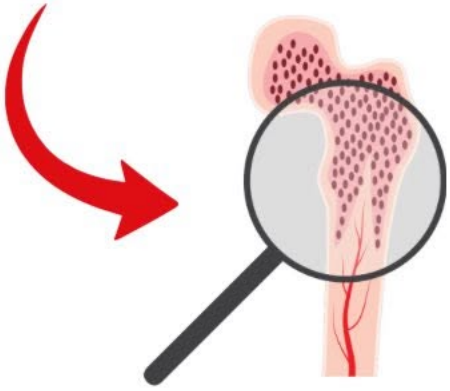
Low levels of red blood cells



Means low level of oxygen in the blood



Kidneys are sensitve to low levels of oxygen in the blood (hypoxia) as a result release a hormone called ErythropoietIn (EPO)



This hormone stimulates bone marrow to release more red blood red cells into the blood circulation

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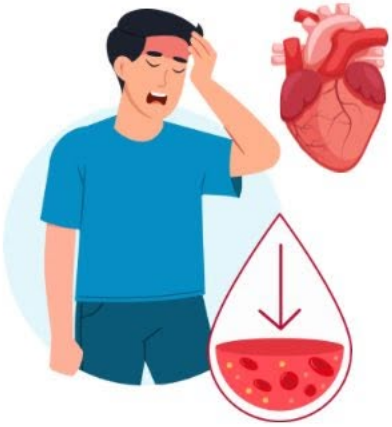
The surge of red blood cells into the blood circulation, corrects the low level of red blood cells and ensures sufficient oxygen is transported around the body



Without oxygen, tissues and organs - particularly the heart and brain do not do function well. For this reason, anaemic people may get tired easily and look pale.

Kidneys that are declining in function, struggle to produce EPO and so unable to send the bone marrow signals to produce more red blood cells to transport more oxygen around the body. Anaemia is therefore a common complication of those living with CKD.

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Living with kidney disease

If you have kidney disease, you should have a blood test to measure your haemoglobin level at least once a year to check for anaemia.
Not everyone will have symptons, these are few:

Fast irregular heartbeat

Shortness of breath

Headaches

Fatigue or tiredness

Weakness and body aches

Chest pain and dizziness

Trouble concentrating

Unusually pale skin

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Are there any other causes of Anaemia ?

Dietary deficiency - lack of iron, B12 or folate, these are essentially the raw materials needed to make red blood cells.

Diseases that can harm or destroy your blood cells- sickle cell or thalasemia

Malabsorption caused by conditions like coeliac disease.

Drugs and medications - alcohol, antibiotics, anti-inflammatory drugs or anticoagulant medications

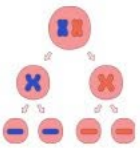
Blood loss due to trauma, surgery, peptic ulcer, heavy menstruation, cancer (in particular bowel cancer).

Periods of rapid growth or high energy requirements such as puberty or pregnancy.

Infection – malaria and septicaemia, whicph reduce the life span of red blood cells

Hormone disorders – such as hypothyroidism

Certain types of anaemia can be inherited



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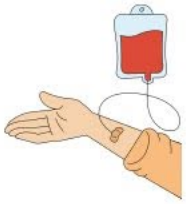
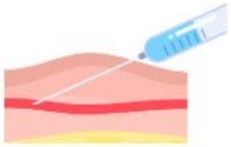
What treatments are available?

If you are low in Vitamin B12, Iron or folate you may be prescribed supplements. A specialist dietitian can also advise you on dietary intake to improve levels



If you have very low levels of iron and unable to tolerate or absorb iron you may need an iron infusion or may need injections for very low levels of B12.

For more severe anaemia in CKD- Erythropoietin (EPO) injections also called ESA may be recommended. These are easily injected just underneath the skin and can be done at home.



Regular blood tests will be done to ensure your levels are where they should be after treatment.

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