

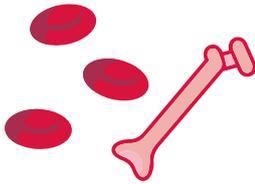
# Iron management: its importance in Anaemia of Chronic Kidney Disease

## The role of iron in the body

Iron is an **essential mineral** that the body requires for development, growth, and, importantly, **haemoglobin (Hb) production**.<sup>1</sup> Hb is the iron-rich protein in red blood cells that carries oxygen around the body. Without enough iron, the body cannot produce enough haemoglobin to carry oxygen from the lungs to the rest of the body where it is needed.<sup>2</sup>

**This is also known as anaemia.<sup>2</sup> Anaemia is a common complication of chronic kidney disease (CKD), in which the body has fewer red blood cells and low haemoglobin levels.<sup>2</sup>**

### No anaemia of CKD



Normal erythropoietin levels - a hormone that stimulates red blood cell production in the bone marrow.<sup>2</sup>



Normal hepcidin levels (Hepcidin is an inflammatory hormone that regulates iron).<sup>1</sup>

### Anaemia of CKD



Reduced erythropoietin production, which reduces the number of red blood cells.<sup>2</sup>



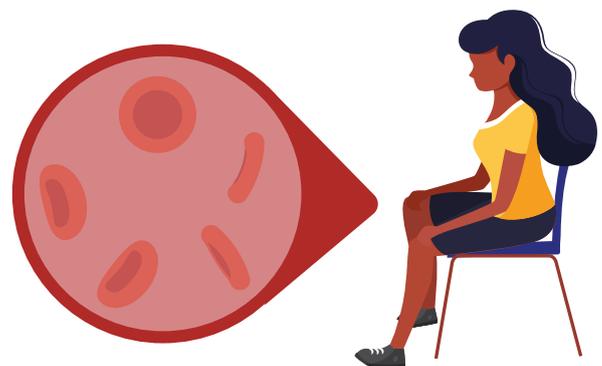
Chronic inflammation that increases hepcidin levels, resulting in less iron availability for haemoglobin production.<sup>3</sup>

### Normal haemoglobin levels:



Normal activity

### Low levels of haemoglobin in a person with anaemia of CKD:



Reduced activity and fatigue

## Managing anaemia of CKD

Current treatment options include oral and intravenous (IV) iron or injectable erythropoiesis-stimulating agents (ESAs), which are typically co-administered with iron.<sup>4,5</sup>

Hypoxia-inducible factor (HIF) prolyl hydroxylase (PH) inhibition represents an advancement in the treatment of symptomatic anaemia of CKD, offering an alternative treatment option for people living with this condition.<sup>4</sup>

HIF-PH inhibition mimics the body's natural response to reduced oxygen levels in the blood<sup>4</sup>, enabling the body to produce more red blood cells by increasing the production of erythropoietin (EPO), reducing hepcidin levels and increasing iron absorption and iron transport to the bone marrow.<sup>1,6</sup>

## References

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