

10. Anaemia & Kidney Disease

Anaemia is a serious disorder affecting millions of people around the world, including Malaysia. It is a condition caused by a shortage in the supply of red blood cells that carry oxygen from the lungs to the organs and tissues.

10.1. Symptoms of Anaemia

Anaemic symptoms vary, and it may not be detected early because it is hidden by other chronic conditions. If you have anaemia, you may:

- feel breathless
- feel unable to think clearly
- feel unusually tired
- look pale
- experience rapid heartbeats
- experience poor appetite
- lack energy to carry out daily activities
- suffer sleeplessness
- suffer dizziness and headaches
- suffer from depression

Fatigue is a very common problem with kidney failure. Sometimes it is due to a low red blood cells count. We have special medicines that can take care of that problem. Unfortunately, if fatigue is severe due to kidney failure, generally the best way to manage it is with dialysis.

10.2. What causes Anaemia?

Anaemia may be caused by:

- too little iron in the body;
- loss of blood due to accidents, surgery, stomach ulcers, kidney or bladder tumors, cancer or polyps in the intestines and other causes;
- chronic kidney disease, liver disease, HIV/AIDS, systemic lupus and cancer;
- too little vitamin B 12 or folic acid in your body or an infection or inflammation in your body or a poor diet;
- diseases that harm or destroy your red blood cells, such as sickle cell disease.

10.3. Why does Chronic Kidney Disease cause Anaemia?

Most people with CKD develop anaemia because diseased kidneys produce less erythropoietin or EPO, which is a hormone that causes your bone marrow to produce red blood cells. If you suffer from CKD, you should be checked and treated for anaemia.

10.4. How do I know if I have Anaemia?

A check of your hemoglobin (Hgb) level will confirm if you have anaemia. Hemoglobin is the part of red blood cells that carries oxygen throughout your body. If your hemoglobin falls below normal levels, and there is no other causes for it, your doctor will treat you for anaemia.

10.5. How is Anaemia treated?

- Treatment depends on the actual cause of anaemia and may include taking supplements such as iron, vitamin B 12 or folic acid;

- Blood transfusions may be recommended for some types of anaemia such as that caused by sickle cell disease;
- Patients, whose anaemia is caused by CKD, may be injected with medications such as epoetin alfa or epoetin beta to increase red blood cells production;
- A newer medication called darbepoetin alfa works in the same way but lasts longer in the body and may be given less often;
- For CKD patients, the goal of anaemia treatment is to reach and maintain a hemoglobin level of at least 11 to 12g/dL.

10.6. Can supplements help overcome Anaemia?

If you have a deficiency of iron, vitamin B12 or folic acid, you may need to take supplements. Your doctor may do some tests to verify your vitamin and mineral levels. Vitamin B12 deficiency can be treated by injections into a muscle. Extra folic acid can be taken in pill form. If you need extra iron, your doctor may order iron pills.

If you have CKD and are on medication to raise your red blood cells production, your doctor will check to make sure you have enough stores of iron in your body. Without enough iron in your body, the drug will not work effectively. Two tests called TSAT (*tee-sat*) and ferritin can show if your body has enough iron. Your TSAT should be at least 20 percent and your ferritin should be at least 100. You may need to receive iron by injection to reach these target levels.

10.7. What happens if Anaemia goes untreated?

Untreated anaemia can worsen your health problems. If anaemia gets worse, your heart will have to work harder to pump more blood and produce more oxygen for your vital organs. This can lead to heart problems such as left ventricular hypertrophy or LVH. Unfortunately, many people with CKD are not treated for anaemia until their kidneys have failed, and they need dialysis. Early detection of CKD will help your doctor track your haemoglobin and treat you for anaemia if necessary.

10.8. Key Points to Remember:

- Anaemia means you have a short supply of red blood cells in your body. Red blood cells carry oxygen to all your organs and tissues.
- Anaemia is diagnosed by checking your haemoglobin (Hgb) or hematocrit (Hct) levels.
- If you have anaemia, your doctor will check for the exact cause in order to plan your treatment better.
- The symptoms of anaemia may vary, but commonly include: fatigue, little energy for daily tasks, poor appetite, trouble sleeping, dizziness, headaches, poor concentration, rapid heartbeat and shortness of breath.
- CKD may cause anaemia because of a low level of the hormone called erythropoietin, or EPO, which stimulates red blood cell production.
- The treatment for anaemia depends on the exact cause, but it may involve: taking iron, vitamin B12 or folic acid supplements, taking drugs that increase red blood cell production and sometimes, transfusions.
- In CKD, iron supplements are often needed along with EPO to treat anaemia.
- If untreated, anaemia can lead to serious complications, such as heart problems.