



Anemia and Chronic Kidney Disease (CKD)

Anemia is a condition in which the body doesn't have enough red blood cells. Red blood cells are needed to carry oxygen (energy) throughout the body. Lack of oxygen to muscles and organs can cause fatigue (feeling tired) with low energy and weakness.

The kidneys play a key role in making red blood cells. The kidneys make a substance (hormone) called erythropoietin (EPO) which tells the bone marrow to make more red blood cells. When kidney function is lower, not enough EPO is made which leads to anemia. Feelings related to anemia include fatigue, tiredness, shortness of breath, headache and inability to concentrate.

Anemia is common in persons with chronic kidney disease (CKD). A lab called hemoglobin looks at your level (amount) of red blood cells. The target goal for hemoglobin in persons with CKD is between 9.5 and 11. If your hemoglobin level becomes too low (below 9), your anemia may be treated with medicines called "red blood cell boosters" which give the body a form of erythropoietin (EPO or Aranesp) to help make red blood cells. This medicine is given as a shot (injection) every 3 to 4 weeks at a special Anemia clinic. You will need to have regular labwork including hemoglobin checked often, usually monthly, if you are taking "red blood cell booster" shots.

Your body needs iron in order to make red blood cells. Special iron studies (labs) are usually ordered by your doctor to see how much iron is available in your body. These tests can tell us if you have enough iron to make red blood cells adequately.

Iron pills are often used to prevent or treat anemia and can be taken without a prescription. They come as ferrous sulfate at your local drugstore and should be taken once to three times a day depending on the instructions from your doctor. Iron pills should be taken between meals, not with a meal. They should not be taken with antacids or phosphate binders. Iron can cause GI upset, such as nausea, feeling of fullness or constipation. Taking stool softeners can help to avoid constipation.

If iron pills do not correct the anemia or cause too much GI upset, iron may be given through your vein (intravenously or IV). This would be done at a special infusion center associated with a hospital. Examples of IV iron are Ferrlecit and Feraheme.