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We have complied cancer information from some of our most trusted sources. This article on hypokalemia is from **ChemoCare.com** and addresses the concerns patients may feel during or after chemotherapy.

Hypokalemia (Low Potassium)

Hypokalemia is an electrolyte imbalance and is indicated by a low level of potassium in the blood. The normal adult value for potassium is 3.5-5.3 mEq/L.

Potassium is one of many electrolytes in your body. It is found inside of cells. Normal levels of potassium are important for the maintenance of heart, and nervous system function.

What Causes Hypokalemia?

One way your body regulates blood potassium levels is by shifting potassium into and out of cells. When there is a breakdown or destruction of cells, the electrolyte potassium moves from inside of the cell to outside of the cell wall. This shift of potassium into the cells causes hypokalemia. Trauma or insulin excess, especially if diabetic, can cause a shift of potassium into cells (hypokalemia).

Potassium is excreted (or "flushed out" of your system) by your kidneys. Certain drugs or conditions may cause your kidneys to excrete excess potassium. This is the most common cause of hypokalemia.

Other causes of hypokalemia include:

- Increased excretion (or loss) of potassium from your body.
- Some medications may cause potassium loss which can lead to hypokalemia. Common medications include loop diuretics (such as Furosemide). Other drugs include steroids, licorice, sometimes aspirin, and certain antibiotics.
- Renal (kidney) dysfunction - your kidneys may not work well due to a condition called Renal Tubular Acidosis (RTA). Your kidneys will excrete too much potassium. Medications that cause RTA include Cisplatin and Amphotericin B.
- You may have hypokalemia from a loss of body fluids due to excessive vomiting, diarrhea, or sweating.
- Endocrine or hormonal problems (such as increased aldosterone levels) - aldosterone is a hormone that regulates potassium levels. Certain diseases of the endocrine system, such as Aldosteronism, or Cushing's syndrome, may cause potassium loss.
- Poor dietary intake of potassium

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Symptoms of Hypokalemia:

- You may not have any symptoms unless your blood potassium levels are significantly lowered.
- You may have muscle weakness, fatigue, or cramps.
- On exam, your healthcare provider may notice your reflexes to be lessened.
- You may have changes on your electrocardiogram (ECG or EKG).

Things You Can Do For Hypokalemia:

- Follow your healthcare provider's instructions regarding raising your blood potassium level. If your blood test results show your levels are severely lowered, he or she may prescribe potassium supplements, either in the pill or an intravenous (IV) form.
- If you are taking heart medication, and you have a chronic (long-term) low blood potassium level, you may be advised to eat a high potassium diet. Foods that are high in potassium include most fresh fruits and vegetables. Some specific examples include:
    - Oranges and orange juice
    - Leafy green vegetables, such as spinach and greens (collard and kale)
    - Potatoes
- Avoid caffeine and alcohol, as these can cause you to have electrolyte disturbances.
- Follow all of your healthcare provider's recommendations for follow up blood work and laboratory tests.

Drugs That May Be Prescribed by Your Doctor:

- Your doctor or healthcare provider may prescribe medications to increase your blood potassium levels. These may include:

    - Potassium-sparing Diuretics - are also known as "water pills" as they work to increase blood potassium levels, by allowing your kidneys to retain potassium, while urinating out extra fluid. A commonly used example of this medication may include Spirinolactone.
    - Potassium and Magnesium supplements - You may receive potassium and/or magnesium supplements if you have low blood potassium and magnesium levels. In order to correct the blood potassium level, and bring it into the "normal" range, you must often take magnesium as well. These medications may be taken in a pill form, or in an intravenous (IV) form, if you are severely deficient in these electrolytes.

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When to Contact Your Doctor or Health Care Provider:

- Severe diarrhea (greater than 5 stools in a day).
- Nausea that interferes with your ability to eat, and is unrelieved by any prescribed medications.
- Vomiting (vomiting more than 4-5 times in a 24 hour period).
- Muscle weakness, or a poor appetite that does not improve.
- Shortness of breath, chest pain or discomfort, should be evaluated immediately.
- Feeling your heart beat rapidly (palpitations).

Note: We strongly encourage you to talk with your health care professional about your specific medical condition and treatments. The information contained in this website is meant to be helpful and educational, but is not a substitute for medical advice.

Source: http://www.chemocare.com/chemotherapy/side-effects/hypokalemia-low-potassium.aspx

875 Oak Street SE. Salem, OR, 97301 • Phone: 503.561.6444 • Fax: 503.561.6440