Hypokalemia

You will learn the following:

- Causes (easy mnemonics to remember it)
- Signs & Symptoms (tricks on how to easily remember)
- Nursing Intervention…things that NCLEX and lecture exams look for

Hypo= low

Kal= root word for potassium….. don't get it confused with cal= calcium

Emia=blood

Meaning of hypokalemia: Low Potassium in the Blood

Normal Potassium Level 3.5-5.3 (**2.5 or less** is very dangerous)

Most of the body's potassium is found in the intracellular part of the cell compared to the extracellular which is where sodium is mainly found. Blood tests measure potassium levels via the outside of the cell (extracellular fluid).

Remember potassium is responsible for nerve impulse conduction and muscle contraction.

Causes of Hypokalemia

"Your Body is trying to **DITCH** potassium"

Drugs (laxatives, diuretics, corticosteroids)

Inadequate consumption of Potassium (NPO, anorexia)

Too much water intake (dilutes the potassium)

Cushing's Syndrome (High secretion of Aldosterone)

Heavy Fluid Loss (NG suction, vomiting, diarrhea, wound drainage, sweating)

(Other causes: when the potassium moves from the extracellular to the intracellular with alkalosis or hyperinsulinism (this is where too much insulin in the blood and the patient will have symptoms of hypoglycemia)

Signs & Symptoms of Hypokalemia

Try to remember everything is going to be SLOW and LOW. Don’t forget potassium plays a role in muscle and nerve conduction so muscle systems are going to be messed up and effect the heart, GI, renal, and the breathing muscles for the lungs.

- Weak pulses (irregular and thread)
- Orthostatic Hypotension
- Depression ST, flat or inverted T wave and prominent u-wave

- Shallow respirations with diminished breath sounds….due to weakness of accessory muscle movement to breath)
- Confusion, weak
- Flaccid paralysis
- Decrease deep tendon reflexes
- Decreased bowel sounds

Easy way to Remember 7 L’s

1. Lethargy (confusion)
2. Low, shallow respirations (due to decreased ability to use accessory muscles for breathing)
3. Lethal cardiac dysrhythmias
4. Lots of urine
5. Leg cramps
6. Limp muscles
7. Low BP & Heart

Nursing Interventions for Hypokalemia

Watch heart rhythm (place on cardiac monitor…most are already on telemetry), respiratory status, neuro, GI, urinary output and renal status (BUN and creatinine levels)

Watch other electrolytes like Magnesium (will also decrease…hard to get K+ to increase if Mag is low), watch glucose, sodium, and calcium all go hand-in-hand and play a role in cell transport

Administer oral Supplements for potassium with doctor’s order: usually for levels 2.5-3.5…give with food can cause GI upset

IV Potassium for levels less 2.5 (NEVER EVER GIVE POTASSIUM via IV push or by IM or subq routes)

-Give according to the bag instruction don't increase the rate…has to be given slow…patients given more than 10-20 meq/hr should be on a cardiac monitor and monitored for EKG changes

-Cause phlebitis or infiltrations

Don't give LASIX, demadex , or thiazides (waste more Potassium) or Digoxin (cause digoxin toxicity) if Potassium level low…notify md for further orders)

Physician will switch patient to a potassium sparing diuretic Spironolactone (Aldactone), Dyazide, Maxide, Triamterene

Instruct patient to eat Potassium rich foods

Remember POTASSIUM to help you remember the foods

- **P**otatoes, pork
- **O**ranges
- **T**omatoes
- **A**vocados
- **S**trawberries,
- **S**pinach
- f**I**sh
- m**U**shrooms
- **M**usk melons: cantaloupe

Also included are: (carrots, raisins, bananas)