



Hypokalemia

Symptoms and treatment

Symptoms of hypokalemia

Muscle weakness

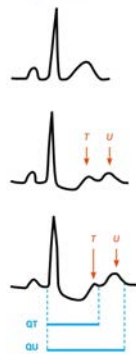
- ➔ cramps
- ➔ rhabdomyolysis
- ➔ ileus
- ➔ paralysis

Metabolic effects

- ➔ diabetes insipidus
- ➔ metabolic alkalosis
- ➔ increased ammonia production

ECG changes

- T wave flattening
- U waves
- ST-depression
- pseudo-QT elongation



ECG changes

With worsening hypokalemia

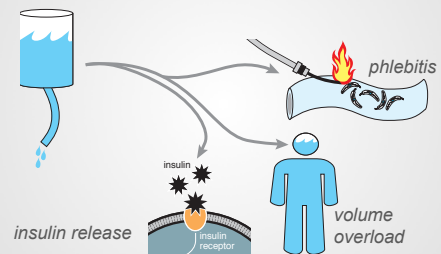
- ➔ Frequent supraventricular and ventricular ectopics
- ➔ Supraventricular tachyarrhythmias: fib, flutter, atrial tachycardia
- ➔ Potential to develop life-threatening ventricular arrhythmias, e.g. VT, VF and Torsades de Pointes

Treatment of hypokalemia: dose

Dose of potassium = $(4 - \text{Potassium}) \times 100$

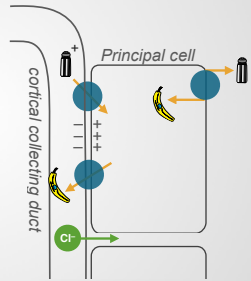
40 mmol doses every 4-6 hours

Treatment of hypokalemia: IV or PO



Treatment of hypokalemia: the anion

The best potassium supplement is **potassium chloride**



Treatment of hypokalemia: the anion

Other anions include:

- phosphate
- acetate
- bicarbonates

All of them increase renal potassium excretion

