

BRIEF OVERVIEW OF RHABDOMYOLYSIS

Definition: Breakdown of muscle cell elements into the bloodstream.

- Myoglobin:
 - 1) Can block kidney tubule, or...
 - 2) Breakdown in the kidney into toxic byproducts & damage the kidney.
 - 3) Kidney failure in extreme cases.
- If muscle damage is severe, “Compartment Syndrome” (Necrosis = muscle death).
 - 1) Excess byproducts increase swelling.
 - 2) All trapped within fascia.

History: used to be caused by “crushing” injuries due to falling debris and trapping people in earthquakes = kidney failure.

Today: exertional Rhabdo from working out.

SYMPTOMS

- Muscle swelling.
- Extreme long-term soreness.
- Blood screen = low urine flow, dark urine, increased protein, stinky urine.
- CPK enzyme creatine phosphokinase levels are high.
- Nausea with and without vomiting.

CAUSES

1. TOO MUCH, TOO SOON – Going all-out in a deconditioned state.
2. Exercise intensity independent of fitness level:
 - High volume of any ST exercise.
 - High volume of distance running.
 - High volume of eccentric exercise.

SECONDARY FACTORS

- High ambient temperatures.
- Increase or decrease protein in the diet.
- Males outnumber females.
- Creatine & alcohol intake.
- Both dehydration and overhydration.