

## **Good for Everyone**

### **Supplement function**

- Made naturally in the body in the liver, kidneys and pancreas and is synthesized from amino acids.
  - The Greek word “Kreas” means flesh. It is stored in animal muscle tissue.
  - It is the vital carrier and re-supplier of phosphate during energy production most noticeably in exercise that is done without oxygen like sprints and heavy lifting.
  - Helps the body use less glycogen for a fuel source.
  - Promotes muscle growth and retention and helps muscle tissue withstand repeated workout stress.
  - Enables cells to become filled with more water all known as cell-volumizing. Properly hydrated cells can then do a better job in recovery, repair, protein and glycogen synthesis. Volumized cells are also able to lift more weight and do more work.
  - Helps to increase lean mass and lose body fat.
  - Increases muscle agility, speed, power and coordination.
  - Preserves muscle tissue as people age or do high volume endurance workouts
  - Prescribed to some individuals with chronic fatigue, fibromyalgia, muscular dystrophy, ALS, AIDS, cancer, post surgery recovery and Parkinson’s
  - Aids in insulin metabolism and thereby helps to reduce cholesterol and triglycerides.
  - Helps to extend endurance and raise lactate threshold by aiding in acid buffering.
  - Proven effective and safe in well over 400 clinical studies worldwide and is not a steroid or a drug.
- Proven to not harm kidneys or liver.
- Beneficial for people of all ages including children and the elderly.

### **Supplement recommendations**

- Use pure creatine monohydrate powder added to a post workout protein smoothie or recovery drink that has some form of high glycemic carbohydrate.
  - High glycemic carbohydrate will activate insulin which will help shuttle the creatine into the muscle tissue. This insulin rise is beneficial only post workout
  - If not working out that day, then take in a protein shake at any other time of day.
  - Look up recommended loading dose on chart (on back) and load for 5-7 days. Divide loading dose into 3-4 serving per day.
  - Then switch to maintenance dose for daily use. For strength and power workouts take half of dose right before or during and other half in post workout shake. Endurance athletes take full maintenance dose in post workout shake or recovery drink.
  - Endurance athlete do not have to load and will also avoid excess water gain by skipping the loading phase. Creatine stores will take about 3 weeks to reach their maximum with this approach.
  - It will not be beneficial to take more than the maintenance dose once muscle tissue is fully loaded.
- Excess creatine will always be safely excreted.
- If you experience cramping, drink more water during the day and make sure the Creatine being

used is a high quality monohydrate.

- If one does not respond to creatine, then the person may have a damaged insulin chemistry from

aging or ingesting too many refined foods.

- Insulin may be re-sensitized and made more efficient by eating produce(especially vegetables) in

place of flour or sugar, taking Chromium picolinate, Vit E, fish oil, flax oil, lipoic acid, magnesium and DHEA daily

## **References**

Debbie Perry CSNA-Masters, Burke, Ed R. Ph.D. **Optimal Muscle Performance and Recovery**, Avery publ. New York, NY 2003, Holly C. **Certified Sports Nutrition Advisor Course 3rd ed.** Module 4 2007