Does Your Workout Need Creatine?

There is a flood of interest in creatine these days, but with all the enthusiasm questions arise about its safety and appropriate use. A recent article in The Physician and Sportsmedicine provides an overview of the creatine craze and is worth a read. (See Vol 26, No. 6, June 98). The author gives the background of this popular supplement and discusses its use for athletes as well as newer uses in the medical field currently being tested. Research studies are reviewed and it is clear from many of these, that creatine improves performance in repeated bouts of high intensity strength work and repeated sprints. Results are impressive and quick, and many athletes gain up to 3 pounds in the first week. But though gains in weight and strength have been frequently noted, not all athletes appear to benefit. Studies on runners and swimmers are not as conclusive, and in sports where weight gain is problematic, creatine may actually impair performance by slowing the athlete down.

Side effects: The most consistently documented side effect continues to be weight gain though there are anecdotal reports of muscle cramps, strains and renal failure. Because the kidneys must clear higher levels of creatine, the impact of long-term use must be studied further to assure safety of use over time. Another anecdotal report is that creatine use may exacerbate dehydration, particularly in the heat. This is another reason caution should be used when determining proper dosage, and deciding upon time frame for use.

Suggestions to potential users:
If you decide to try creatine, you should follow these guidelines: **1. Dosage** - Studies to date have been following the protocol of a loading dosage of 20 to 25 grams of creatine per day for 5 to 6 days, followed by a maintenance dosage of 2 to 5 grams per day. Body weight should be taken into account however, when determining dosage. Researchers recommend 0.3g/kg/day of creatine in the loading phase, and then 0.03 g/kg/day for maintenance. Studies do not indicate that more is better! **2. A thorough medical history** should be taken initially and then kidney and liver function tests and cardiac exams should be done during supplementation. **3. Creatine should be avoided when extreme heat is an issue**, during double-session practices, and while making weight in wrestling. It should also be avoided by adolescent athletes until studies have been conducted on this population to assure its safety.

Creatine is not related to anabolic steroids, nor is it banned by the International Olympic Committee or the National Collegiate Athletic Association. Its popularity indicates that it is going to continue to be used by many athletes for years to come. But until further studies are conducted on its long-term safety, caution should be used by all adults who choose to take it.