

CREATINE MONOHYDRATE SUPPLEMENTATION PRACTICAL APPLICATIONS

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INTRODUCTION

Creatine monohydrate is currently among the most popular and widely used sports and exercise supplements. Creatine is a naturally occurring substance in the body and is mostly stored in muscle. Creatine can be thought of as a high power fuel used for energy during high intensity exercise (such as weight training or sprinting). Supplementing with creatine monohydrate has been shown to increase the body's supply of this high powered fuel and in turn improve high intensity sporting performance. For bodybuilders this means an increased energy store which will allow for a greater work rate in the gym. Creatine monohydrate is discussed thoroughly in the literature review, found by clicking [Here](#).

The following paragraphs are practical applications based on the research displayed in article 1.

PRACTICAL APPLICATIONS

Weight training can be considered an intermittent, high intensity form of exercise. During weight training, individuals perform maximal effort exercise for short durations interspersed with short recovery periods. This type of athletic endeavour is heavily reliant on the PCr energy pathway and research studies have shown that the work performed in such exercise can be greatly enhanced by creatine monohydrate supplementation. Bodybuilders can therefore benefit greatly from appropriate creatine supplementation.

With review of the appropriate literature we recommend the utilization of a loading period when supplementing with creatine. Loading should occur for 5 consecutive days, with individuals consuming 20 grams of creatine daily in 5 gram doses spread 3-4 hours apart. Such feeding protocols have been unequivocally shown to increase muscle creatine content and increase work capacity. Following a loading period, muscle creatine levels can be maintained with a 5 g dose daily each morning and an additional 5 g dose on days on which the individual is partaking in vigorous, high intensity exercise, such as weight training.

Further analysis of the literature causes us to make the following recommendations. While supplementing with creatine monohydrate, athletes should remain well hydrated especially during the loading phase. It is not necessary to intake large amounts of simple carbohydrates in conjunction with creatine monohydrate feeding. Muscle creatine stores can be adequately increased without such practices which could be detrimental to an athlete's diet. Creatine should only be taken in the presence of simple carbohydrates following vigorous high intensity exercise when athletes would be administering simple carbohydrates anyway. More information regarding the necessity of feeding simple CHO post vigorous exercise can be found in ABC's [The Window of Opportunity](#) article. Creatine users should adhere to the

recommended dosages. Significantly increased dosages will not increase muscle creatine content further but may place undue stress on internal organs such as the kidneys. Creatine users should avoid caffeine use during their loading period. Caffeine use may impair creatine's performance enhancing effect. Where possible, creatine feeding should be timed to take place closely following exercise. This may increase creatine uptake rates.