

Practitioner Dietary Supplement Reference Guide – 3rd Edition

ExtremeCreatineXXXL (formerly CreatineXXL)

Goal

Supply a performance enhancing NSF Certified for Sport product containing creatine monohydrate, beta-alanine and glutamine; all well known for their positive effects on muscle size, performance and recovery in a stimulant-free powder form enabling the user to conveniently achieve effective dosing of all three ingredients. Additionally, because each of these compounds has unique mechanisms of action related to performance, hypertrophy and recovery, they may produce additive effects when ingested simultaneously. Compared to commercially available products, each ingredient is supplied in a potentially clinically superior form: 1) creatine in its most clinically successful monohydrate form using a purified raw material called Creapure®; 2) beta-alanine in a patented form known as CarnoSyn®; and 3) L-glutamine in a stable patented dipeptide form (magnesium glycyl glutamine chelate). Finally, the dose structure of the product allows it to be added into a customized size and performance stacking procedure commonly used by competitive athletes (see Appendix).

Rationale

Creatine monohydrate,¹ beta-alanine³⁶ and glutamine² (CBG) used individually have been shown to improve training and recovery outcomes compared to placebo as described in their respective sections in the [Practitioner Dietary Supplement Reference Guide \(PDSRG\), 3rd edition](#)). Compared to individual usage, co-ingestion may synergistically create an additive training, recovery, and performance enhancement effect based on unique and complimentary mechanisms of actions. Listed below are the individual mechanisms of action for CBG only to highlight the different or unique actions that together, may contribute to an additive effect. Individual dosing protocols are also included so that the reader sees that ExtremeCreatineXXXL contains an effective dose of all three ingredients and can be adjusted as desired or added to Muscle Stacking Protocols as shown in the Appendix.

Creatine

See [Creatine Monohydrate, PDSRG 3rd Edition](#) for complete details on goal, rationale, mechanisms of actions, clinical trial results, safety, effective use, myths, precautions, contraindications, etc..

Goal and Users

The goal of supplementing creatine monohydrate (CM) is to increase the muscular levels of creatine and speed the regeneration of creatine phosphate (PCr) beyond what can practically be accomplished by diet alone. Creatine loading is much like the goal of carbohydrate loading by endurance athletes but instead of increasing glycogen storage, and thus delaying glycogen depletion, loading creatine would enhance PCr levels and delay its depletion and speed repletion. This practice would benefit strength and power activities that are dependent on PCr as an energy source, including sprinting and weightlifting and their crossover activities which also require repetitive bursts of speed and power, such as specific intermittent activity (team sports – i.e. combined intermittent aerobic and anaerobic activity such as football, baseball, rugby, hockey, etc.).

Mechanisms of Action Summary

Creatine supplementation has been shown to:

- Increase the body's creatine pool to enhance PCr levels and delay its depletion while accelerating repletion, making more available ATP^{3,4,5,6,7,8,9}
- An increased total creatine pool results in more rapid ATP regeneration between exercise sets, allowing athletes to maintain a greater training intensity and improve the quality of the workouts throughout the entire training period. In other words, the result is improved training events that can build on each other.¹⁰

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- Cause a reduction in plasma concentrations of hypoxanthine and lactate following exercise, suggesting lower levels of anaerobic glycolysis, another possible contribution to delaying muscular fatigue by attenuating the exercise induced decrease in muscle pH¹¹
- Initiate changes in gene expression^{12,13}
- Increase satellite cell proliferation and insulin-like growth factor signaling⁸
- Increase growth hormone¹⁴
- Cause alterations in myogenic transcription factors leading to a reduction in serum myostatin (muscle growth inhibitor)¹⁵
- Improve neuromuscular function (facilitating the reuptake of Ca²⁺ into sarcoplasmic reticulum)¹⁶
- Reduce exercise induced blood lactate^{11,17}
- Participate in reducing muscle damage from high intensity resistance training and endurance exercise¹⁸

Dosing Summary from CreatineMonohydrate, PDSRG 3rd Edition (pgs. 12-13)

Effective dosing starting at 5 grams (g) daily can lead to maximum creatine stores within approximately 28 days. However, the more common use of creatine as a standalone product is a 5-7-day loading phase and the maintenance of 5 g per day thereafter.

Loading and Maintenance Protocol with Standalone CreatineMonohydrate

Start by taking 5 g split four times daily with a carbohydrate/protein containing meal/drink for the first 5-7 days. Thereafter take 5 g once or twice daily (twice if > 220 lbs) for the duration of the supplement period to maintain maximum creatine stores. On training days, use one dose before workout and one after with meals or drinks such as your pre and post workout protein shake.

Beta-alanine

See the Beta-alanine section in [NO7Rage, PDSRG 3rd Edition](#) (pgs. 7-10) for current and complete details on goal, rationale, mechanisms of actions, clinical trial results, safety, effective use, precautions, contraindications, etc..

Goal and Users

The goal of supplementing beta-alanine (BA) is to significantly raise muscle carnosine concentrations thus increasing intracellular pH buffering capacity, (buffering exercise-induced acidosis) leading to increases in exercise performance, especially in repeated high intensity activities lasting up to four minutes. Supplementation may increase power output and training capacity and decrease feelings of fatigue and exhaustion. Like creatine, supplementing BA may benefit any adult athlete seeking to improve training outcomes related to increasing muscle and improving strength and power activities such as sprinting, weightlifting, and jumping. Benefits may also translate to other sports requiring repetitive bursts of speed and power – i.e. specific intermittent athletes in team sports such as football, baseball, soccer, rugby, hockey, lacrosse, etc.). Creatine supplementation can also buffer lactate, thereby reducing muscle acidosis, however, beta-alanine does this through a different mechanism (increasing muscle carnosine) to extend time to fatigue, giving rise to the common co-ingestion of creatine and beta-alanine among these athletes.

Mechanisms of Action Summary from NO7Rage PDSRG, 3rd Edition (pgs.7-10)

- Beta-alanine (BA) availability has been shown to be the rate-limiting factor for carnosine synthesis in skeletal muscle, and BA supplementation can increase intramuscular levels of carnosine^{19,20,21} and attenuate exercise induced reductions in pH²² leading to increased workloads.
- Carnosine has also been shown to act as an antioxidant by scavenging free radicals and singlet oxygen,²³ thereby reducing oxidative stress.²⁴ Reactive oxygen species (ROS) are produced at an accelerated rate during exercise²⁵ and thought to contribute to muscle fatigue and exercise-induced muscle damage,²⁶ therefore carnosine may contribute a positive antioxidant effect, which may have implications in immediate and longer-term recovery

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*Dosing Summary from **NO7Rage PDSRG** section, pg. 9*

Daily recommended dosage is 4-6 grams for four weeks to load and 1.2-3.2 grams thereafter to maintain carnosine levels. Otherwise 3.2 grams daily should eventually reach maximum carnosine content while still delivering immediate benefits.

Beta-alanine and Creatine in Combination

Note: *there are many “pre-workout” multi-ingredient (PWMI) supplements commercially available that contain both creatine and beta-alanine along with plentiful other ingredients (e.g. B-vitamins, amino acids, herbs, etc.) including stimulants (e.g. synephrine, caffeine, etc.) that will not be discussed here because of the complexity to establish an individual ingredient’s contributions to a specified outcome.^{27,28} However, many of the PWMI products that also include beta-alanine and creatine together, have been tested with good results. Moreover, none to our knowledge have been shown to be harmful when formulated by the letter of the law (no illegal substances added) thus suggesting simultaneous ingestion of these types of ingredients appear generally safe.^{27,28,29,30}*

The rationale for simultaneously ingesting creatine monohydrate and beta-alanine supplementation (BAS) is to deliver an additive performance effect by combining their respective mechanisms of actions. Creatine supplementation increases the total muscle creatine pool allowing greater energy substrate availability while also improving the anabolic environment throughout the training and recovery periods, while beta-alanine primarily acts as an intramuscular pH buffer to reduce exercise-induced acidosis to extend time to fatigue (see respective sections of the PDSRG, 3rd Edition for all referenced details).

Studies

- Hoffman et al. tested placebo (P), creatine (C) and creatine plus beta-alanine (CA) on strength, power, body composition, and endocrine changes in 33 college football players during 10 weeks of training. During each testing session subjects were assessed for strength (maximum bench press and squat), power (Wingate anaerobic power test, 20-jump test), and body composition. Changes in lean body mass and percent body fat were greater in CA compared to C or P. Significantly greater strength improvements were seen in CA and C compared to P. Resting testosterone concentrations were elevated in C, but no other significant endocrine changes were found. Their conclusion was while the study validated the efficacy of creatine and creatine plus beta-alanine on strength performance, “creatine plus beta-alanine supplementation appeared to have the greatest effect on lean tissue accrual and body fat composition.”³¹
- Zoeller et al. in a double-blind, placebo-controlled study, examined the effects of four weeks of placebo (P), beta-alanine alone (BA), creatine (C) alone and beta-alanine plus creatine (BAC) supplementation on indices of endurance performance in 55 male athletes performing a graded exercise test on a cycle ergometer to determine VO₂peak, time to exhaustion (TTE), power output, VO₂, and percent VO₂peak associated with ventilatory threshold and lactate threshold. They found no significant group effects, but within groups there was a significant time effect observed for BAC on five of the eight parameters measured, suggesting that BAC supplementation may potentially enhance endurance performance.³²
- Stout et al. examined the effects of 28 days of beta-alanine (BA) and creatine (C) supplementation together (BAC) and alone versus placebo on the onset of neuromuscular fatigue by using the physical working capacity at neuromuscular fatigue threshold (PWC(FT)) test in untrained men. PWC(FT) values for the BA and BAC groups were greater than those for the P. However, there were no differences between the C vs. P, BAC vs. BA, C vs. BA, or C vs. BAC groups. Results suggested that BA supplementation may delay the onset of neuromuscular fatigue and there appeared to be no additive or unique effects of C vs. BA alone on the onset of neuromuscular fatigue in this testing protocol.³³
- Okudan et al., after 28 days of creatine (CR) at 5 g and beta-alanine supplementation (BAS) at 1.6 g twice daily found that separately each increased mean power and delayed fatigue but CR + BAS also increased peak power

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significantly in untrained exercisers.³⁴ Using relatively the same dosing, Kresta et al. found no consistent additive benefits of BAS combined with creatine over creatine alone in recreationally active women.³⁵

In totality and considering their individual and unique mechanisms of actions, most researchers and athletes alike believe that under certain athletic conditions/protocols and individual physiologic states, the combination of BAS and CS should contribute in an additive effect size manner.^{6,29,31,32,33,34,36,37} Furthermore, supplementing simultaneously with CR and BA has been shown to be safe as well as effective^{29,31,32,33,34,36,38,39,40}

Dosing Summary from Combination Trials

Both creatine and beta-alanine were commonly used in their maintenance doses as described above in their respective sections: Creatine 5-10 g/d; beta-alanine 3.2 g/d

Glutamine

See **MuscleDefender, PDSRG 3rd Edition** for current complete details on goal, rationale, mechanisms of actions, clinical trial results, safety, effective use, myths, precautions, contraindications, etc.

Goal and Users

The goal of supplementing L-glutamine in a stable patented dipeptide form (magnesium glycyl glutamine chelate) is to improve oral L-glutamine supplementation's ability to function as an effective immuno-nutrient and in its many other important roles in cell growth and survival during times of depletion brought on by demanding stresses. Replenishing glutamine during times of depletion caused by rapid growth, tissue repair or other high metabolic demands, particularly when combined with prolonged energy restriction, may help to maintain health (immune support) including the integrity of the intestinal tract and enhance recovery as compared to a non-supplemented state. Therefore, supplementing L-glutamine may benefit any person in the aforementioned conditions and especially athletes involved in prolonged and frequently repeated training bouts – i.e. high training and diet demands with limited recovery time.

Potential Mechanisms of Glutamine to Support Stress Related Bodily Harm^{2,41}

- Anti-inflammatory/immune regulation by attenuating: 1) activation of nuclear factor- κ B and cytokine release and 2) decreases in immune cell function including neutrophils and lymphocytes
- Increase tissue concentration of GSH attenuating oxidative stress
- Provision of NADPH (stimulating intermediary metabolism and preventing apoptosis by supporting mitochondria function) to increase neutrophils and lymphocytes activity and function
- Preservation of tissue functions via maintenance of ATP levels
- Promotion of intestinal integrity⁴²
- Activates heat shock factor 1 (HSF-1). Tissue protection from enhanced heat shock expression by activating nutrient receptors (sirtuin 1/human antigen R) leading to the activation of heat shock transcription factor in the nucleus favoring cell survival^{43,44,45}
- Glutamine availability is a limiting step for the mTOR complex 1 activation pathway, a primary control point for cell size including skeletal muscle⁴⁶

Considering all the above, the goal would be to supplement the approximate amounts of glutamine released by the peripheral tissues during added stress (at least in the incremental difference from release under normal conditions) to help maintain a physiological environment more conducive to recovery and maintenance of health. Putatively, as opposed to a non-supplemented state where stores of glutamine would have to be released, setting off a triage type situation to favor survival over long-term health, supplementing glutamine would help offset otherwise resulting damage. It is this theory that has brought glutamine supplementation to the world of exercise and sport since activity depending on intensity, duration, individual physiological state and energy balance, can bring on many of the outward conditions described above including compromising intestinal⁴⁷ and immune system integrity.²

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Dosing Summary from *MuscleDefender, PDSRG 3rd Edition* (pgs. 5,6)

Amounts that have yielded positive results in supporting the immune system, intestinal integrity and recovery related to exercise-induced stresses, range from approximately 5 to 40 g (0.05-0.2 g/lb of body weight) taken always before and sometimes split before, during and after exercise.

Creatine, Beta-alanine and Glutamine (CBG) in Combination

While we are not aware of any clinical studies on athletes co-ingesting CBG in individually proper doses that might demonstrate a short or long-term additive training outcome benefit as opposed to supplementing creatine and beta-alanine alone or together as described above, strong rationale exists for their combination in athletes with high training and diet demands also needing rapid recovery (see [MuscleDefender, PDSRG 3rd Edition](#) for all referenced details). Furthermore, since both beta-alanine and creatine together and alone, significantly increase the user's strength output allowing greater workloads, glutamine's potential contribution to recovery becomes more important including its ability to stimulate glycogen synthesis.^{2,41,48} Finally, creatine and glutamine are well known cell volumizers^{1,2} where glutamine serves as an osmolyte in regulating cell homeostasis in hyper and hypo-osmolar conditions through cell shrinkage and swelling; conditions that may play a role in the regulation of protein synthesis.^{2,49,50}

Summary

Proper dosing of creatine and beta-alanine supplementation alone or together clearly and safely improve training outcomes and performance in athletes participating in high intensity activities like weightlifting/bodybuilding, jumping, and sprinting, and their crossover activities including sports that require on and off bursts of power and explosiveness such as team sports including football, baseball, rugby, hockey etc. The addition of glutamine in an effective dose appears justified based on the named athletes now training at a higher level thus requiring enhanced recovery mechanisms in pathways glutamine is known to stimulate.

There is also a convenient and economical factor involved with ExtremeCreatineXXXL. Two daily servings have a clinically effective dose of all three ingredients: 5 g of creatine, 3.2 g of beta-alanine, 7 g of glutamine, making it a 30-day supply of all three ingredients. Therefore, as a standalone supplement it contains the maintenance doses of the three ingredients that deliver results - meaning, although there will be almost immediate gains, it may take up to 25 days to start realizing maximum benefits based on bypassing the higher dose creatine and beta-alanine loading periods as shown in their respective PDSRG sections.

Other possible benefits:

- Users may increase the two servings per day recommendation based on weight or need (no more than four servings daily) without reaching too much of any one ingredient
- Contains no stimulants and therefore can also serve as a pre-workout supplement for people adverse to stimulants such as caffeine or similar herbs. Also allows freedom to add desired energy-stimulating components.
- Commonly used in dotFIT stacking programs (see Appendix) for competitive athletes seeking maximum size and/or performance gains rapidly – i.e. combined with NO7 and CreatineMonohydrate in an incremental fashion to achieve safe, higher levels of creatine and beta-alanine while incorporating a stimulatory pre-workout supplement.

Typical Use

All adult athletes (including drug tested) seeking to improve training outcomes related to lean body mass, strength and power activities such as sprinting, weightlifting, jumping that also translate to other sports requiring repetitive bursts of speed and power – i.e. specific intermittent athletes (team sports that combine intermittent aerobic and anaerobic activity such as football, baseball, rugby, hockey, etc.).

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Dosing ExtremeCreatineXXXL as a Standalone Product

- Take two scoops daily (5 g creatine, 3.2 g beta-alanine, 7 g L-glutamine) to achieve immediate training benefits and reach near maximum creatine and beta-alanine supplemented levels within 28 days and continue throughout the desired training period (always take with some protein and carbs but within allotted calories based on body composition goal).
 - On training days take one (1) scoop before training and one after. May mix in your pre and post workout shake containing protein with some carbohydrate.
 - On non-training days, take one (1) scoop with morning meal or shake and one (1) scoop with evening meal or shake.

Dosing ExtremeCreatineXXXL within Size and Performance Stacking Protocols

See complete supplement stacking programs for competitive size and performance athletes in the Appendix.

Precautions

- Creatine monohydrate: see [CreatineMonohydrate](#), pg. 17
- Beta-alanine: see the beta-alanine section in [NO7Rage](#), pg. 14
- Glutamine: see [MuscleDefender](#), pg. 8

Contraindications

- Creatine monohydrate: see [CreatineMonohydrate](#), pg. 17
- Beta-alanine: see the beta-alanine section in [NO7Rage](#), pg. 14
- Glutamine: see [MuscleDefender](#), pg. 8

Adverse Reactions

- Creatine monohydrate: see [CreatineMonohydrate](#), pgs. 17-18
- Beta-alanine: see the beta-alanine section in [NO7Rage](#), pg. 15
- Glutamine: see [MuscleDefender](#), pg. 8

Upper Limit/Toxicity

- Creatine and beta-alanine: there are no established limits for either, other than the potential of beta alanine to cause apparently harmless tingling at single doses above 800 mg³⁶ as noted on pages 9-10 in the [NO7Rage section of the PDSRG 3rd Edition](#)
- Glutamine: none established

Summary

Purpose

To supply a stimulant-free NSF Certified for Sport (NSFCS) supplement, with effective doses of three well-known performance enhancing ingredients, supplied in potentially clinically superior forms: 1) creatine in its most clinically successful monohydrate form using a purified raw material, Creapure®; 2) beta-alanine in a patented form known as CarnoSyn®; and 3) L-glutamine in a stable patented dipeptide form (magnesium glycyl glutamine chelate). Based on unique mechanisms of actions, co-ingestion of these three ingredients may deliver individually additive benefits, thus improving size and performance gains beyond what has been already been scientifically demonstrated with their individual use.

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Creatine monohydrate as Creapure®

The goal of supplementing creatine monohydrate is to increase muscular levels of creatine and speed the regeneration of creatine phosphate to improve exercise-induced size and performance outcomes.

Beta-alanine as CarnoSyn®

The goal of supplementing beta-alanine is to increase the intracellular pH buffering capacity of muscle, leading to increases in exercise performance, especially in repeated high intensity activities lasting one to four minutes. Supplementation may increase power output and training capacity and decrease feelings of fatigue and exhaustion.

L-glutamine in a stable patented dipeptide form (magnesium glycyl glutamine chelate)

The goal of supplementing L-glutamine is to support periods of depletion caused by rapid growth, tissue repair or other high metabolic demands to help maintain health, (immune support) including the integrity of the intestinal tract and to enhance recovery. Supplementation may be especially important when prolonged energy restriction (dieting) is combined with demanding physical stresses.

Potential Beneficiaries

- All adult athletes (including drug tested) seeking to improve training outcomes related to increasing lean body mass and improving strength and power activities such as sprinting, weightlifting, and jumping. Benefits may also translate to other sports requiring repetitive bursts of speed and power – i.e. specific intermittent athletes (team sports that combine intermittent aerobic and anaerobic activity such as football, baseball, rugby, hockey, etc.).
- Athletes with low creatine and beta-alanine/carnosine levels and/or intake or biosynthesis who perform high intensity activities.
- Ideal for use in competitive size and/or performance athletes stacking protocols (*See Mix Dosing & Stacking instructions in Appendix*) as an addition to NO7Rage and CreatineMonohydrate or use simply as an economical stand-alone product since dosages of all three ingredients have been shown to be clinically effective.
- Ideal for size or performance athletes seeking to enhance performance without stimulants including caffeine.

Unique Features

- Contains Creapure®, a pure creatine monohydrate made in Germany, which helps creatine remain stable during digestion rendering it almost fully available to the body, thus giving it more potential to enhance training outcomes when compared to equal amounts of other creatine products.
- Contains beta-alanine in a patented form known as CarnoSyn.®
- Contains L-glutamine in a stable patented dipeptide form (magnesium glycyl glutamine chelate).
- Convenient stimulant-free powdered form with relatively neutral flavoring allows for easy mixing alone or with other products such as pre/post workout shakes, CreatineMonohydrate, MuscleDefender and other dotFIT powdered products.
- Contains no stimulants and therefore can also serve as pre-workout supplement for people adverse to stimulants such as caffeine or other like-herbs or allows freedom to add desired energy-stimulating components.
- NSF Certified for Sport (NSFCS), an independent third-party test which provides an additional product guarantee to ensure purity and potency for drug tested athletes. Click [here](#) for the dotFIT NSFCS section.
- Formulated and manufactured for taste and pleasing texture in a regularly inspected NSF certified facility, in compliance with Good Manufacturing Practices (GMPs) exclusively for dotFIT, LLC.
- Vegan Friendly

Supplement Facts Label

Supplement Facts		
Serving Size: 1 Rounded Scoop (10.7g)		
Servings Per Container: 60		
	Amount Per Serving	% Daily Value
Calories	5	
Total Carbohydrate	1 g	0%
Creapure® Creatine Monohydrate	2.5 g	*
CarnoSyn® Beta-Alanine	1.6 g	*
L-Glutamine	3.5 g	*

* Daily Value Not Established

Other Ingredients: Citric acid, Natural flavors, Sucralose, Calcium silicate, Red beet juice powder (for color), Acesulfame potassium.

Allergen Warning: This product is produced in a facility that may also process ingredients containing milk, eggs, fish, shellfish, tree nuts, peanuts, wheat and soybeans.

Creapure® is a registered trademark of Alz Chem Trostberg GmbH, Germany, Reg. # 2715.915

Natural Alternatives International (NAI) is the owner of patents as listed on www.carnosyn.com and registered trademark CarnoSyn®.

DIRECTIONS: As a dietary supplement, mix two (2) scoops daily with 8 ounces of water, as directed below:

On training days, take one (1) scoop before training and one (1) scoop after. You may mix with your pre and post workout shake containing protein with some carbohydrate.

On non-training days, take one (1) scoop with morning meal or shake and one (1) scoop with evening meal or shake.

Appendix

Adult Performance & Size Supplement Plan & Instructions with Creatine Monohydrate and ExtremeCreatineXXXL

ActiveMV - Multivitamin & Mineral Formula

- Take two daily: one immediately following first large meal and one after final meal of the day.

SuperOmega-3 Fish Oils

- Take one daily if not consuming eight ounces of fatty fish weekly.

FirstString (or WheySmooth depending on daily calorie allotment)

- Take two scoops 30-45 minutes before workout or use favorite dotFIT® bar for convenience.
- Take two scoops 20-30 minutes after post workout AminoBoostXXL dose.
- Use anytime throughout the day as a supplement to a meal or by itself mixed with desired ingredients to add protein/calories as needed to daily requirements.
 - Be sure to ingest approximately 1 gram (g) of protein per pound of lean body mass (or weight if not overweight) daily from all sources including foods divided 4-5 times daily along with the pre/post shakes (the pre/post shakes combined generally supply 50-80 g of the daily protein requirement).

AminoBoostXXL (workout days only)

- Take one and a half scoops approximately 10 minutes before workout. (add to NO7Rage if using this product – see below) You may continue to consume during workout.
- Take one scoop immediately following workout.

Begin Creatine Supplementation at 2nd Week of Program

2nd Week Start CreatineMonohydrate (CrM)*

- **Loading phase:** mix one scoop (5 g) with 4-8 oz of favorite fluid/shake and take four times daily with a carbohydrate containing meal/drink for the first five days.
 - On training days, use one dose before workout and one after with meals/drinks. May mix with your pre/post training formula.
- **Maintenance phase:** after five-day loading phase:
 - Take one scoop daily with post workout shake on training days.
 - On non-training days take one scoop with any meal when not taking ExtremeCreatineXXL (i.e. use ExtremeCreatineXXXL at different times so total creatine is evenly dispersed throughout the day).

Add ExtremeCreatineXXXL on 6th day of 2nd Week

Two scoops supply 3.2 g of beta-alanine, 5 g of creatine monohydrate and 7 g of L-glutamine

- Take two scoops daily (always take with some protein and carbs but within allotted calories based on body composition goal)
 - **On training days:** take one scoop before training with pre-workout full meal (generally 2-3 hours pre-workout). If not possible based on early training, take with pre-workout shake. Take remaining dose (one scoop) any time with meal or shake when not taking a CreatineMonohydrate dose to help evenly spread total creatine intake throughout the day.

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- **On non-training days:** take one scoop with morning meal or shake and one scoop with evening meal or shake

**Programs total daily creatine: Loading phase 20 g/d. Thereafter 10 g/d. To maximize uptake, creatine intake should be spread as evenly as possible throughout the day and around the workout as described and ingested with carbohydrate and/or protein containing meals or shakes. Beta-alanine content is 3.2 g throughout the supplemented period once starting ExtremeCreatineXXXL*

Adult Stack: NO7Rage & ExtremeCreatineXXXL Performance & Size Supplement Plan

ActiveMV - Multivitamin & Mineral Formula

- Take two daily: one immediately following first large meal and one after final meal of the day.

SuperOmega-3

- Take one daily if not consuming eight ounces of fatty fish weekly.

FirstString (or WheySmooth depending on daily calorie allotment)

- Take two scoops 30-45 minutes before workout or use favorite dotFIT® bar for convenience.
- Take two scoops 20-30 minutes after post workout AminoBoostXXL dose.
- Use anytime throughout the day as a supplement to a meal or by itself mixed with desired ingredients to add protein/calories as needed to meet daily requirements.
 - Be sure to ingest approximately one gram of protein per pound of lean body mass (or weight if not overweight) daily from all sources including foods divided 4-5 times daily along with the pre/post shakes (the pre/post shakes combined generally supply 50-80 g of the daily requirement).

AminoBoostXXL (workout days only)

- Take one and a half scoops approximately 10 minutes before workout (add to NO7Rage if using this product – see below). You may continue to drink during workout.
- Take one scoop immediately following workout.

Begin ExtremeCreatineXXXL at 2nd Week

Two scoops supply 3.2 g of beta-alanine, 5 g of creatine monohydrate and 7g of L-glutamine.

- **Take two scoops daily.** Always take with some protein and carbs but within allotted calories based on body composition goal.
- **On training days:** take one scoop before training with pre-workout full meal (generally 2-3 hours pre-workout). If not possible based on early training, take with pre-workout shake. Take remaining dose (one scoop) any time with meal or shake to help evenly spread total creatine intake throughout the day
- **On non-training days:** take one scoop with morning meal or shake and one (1) scoop with evening meal or shake.

Add NO7Rage at 3rd week (workout days only)

One scoop contains 2.5 g of creatine monohydrate and 1 g of beta-alanine (BA)

- Take one to two and a half scoops (depending on weight and caffeine sensitivity; start with one scoop and increase to two if not uncomfortably affected by caffeine) approximately 10 minutes before workout (may mix with AminoBoostXXL and continue to consume during workout). See directions on label for weight dosages.

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- NO7Rage contains 175 mg of caffeine per scoop. *As a reference: Starbucks Grande-drip coffee contains ~330 mg of caffeine, close to the same amount in two scoops of NO7Rage.*

Total daily creatine for this stack: 5 g/d. At third week on workout days total creatine will be 7.5-12.5 g/day and 5 g on non-workout days. Total BA intake 5.2 g/day on workout days (two scoops NO7Rage) and 3.2 g on non-workout days. To maximize uptake, creatine intake should be spread as evenly as possible throughout the day and around the workout as described and ingested with carbohydrates and/or protein.

Adult Super Stack Performance & Size Supplement Plan

Active Multivitamin Mineral Formula

- Take two daily: one immediately following first large meal and one after final meal of the day.

SuperOmega-3

- Take one daily if not consuming eight ounces of fatty fish weekly.

FirstString (or WheySmooth depending on daily calorie allotment)

- Take two scoops 30-45 minutes before workout or use favorite dotFIT® bar for convenience.
- Take two scoops 20-30 minutes after post workout AminoBoostXXL dose
- Use anytime throughout the day as a supplement to a meal or by itself mixed with desired ingredients to add protein/calories as needed to meet daily requirements.
 - Be sure to ingest approximately one gram of protein per pound of lean body mass (or weight if not overweight) daily from all sources including foods divided 4-5 times daily along with the pre/post shakes (the pre/post shakes combined generally supply 50-80 g of the daily requirement)

AminoBoostXXL (workout days only)

- Take one and a half scoops approximately 10 minutes before workout (add to NO7Rage if using this product – see below). You may continue to drink during workout.
- Take one scoop immediately following workout.

Begin Creatine Supplementation at 2nd Week of Program

2nd Week Start CreatineMonohydrate (CrM)*

- **Loading phase:** mix one scoop (5 g) with 4-8 oz of favorite fluid/shake and take four times daily with a carbohydrate containing meal/drink for first five days.
 - On training days, use one dose before workout and one after with meals/drinks. May mix with your pre/post training formula.
- **Maintenance phase:** after five-day loading phase:
 - On training days take one scoop daily with post workout shake.
 - On non-training days take one scoop with any meal when not taking ExtremeCreatineXXXL (i.e. use ExtremeCreatineXXXL at different times so total creatine is evenly dispersed throughout the day)

Add ExtremeCreatineXXXL on 6th day of 2nd Week

Two scoops supply 3.2 g of beta-alanine, 5 g of creatine monohydrate and 7 g of L-glutamine

- **Take two scoops daily.** Always take with some protein and carbs but within allotted calories based on body composition goal.

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- **On training days:** take one scoop before training with pre-workout full meal (generally 2-3 hours pre-workout). If not possible based on early training, take with pre-workout shake. Take remaining dose (one scoop) any time with meal or shake when not taking a Creatine Monohydrate dose to help evenly spread total creatine intake throughout the day
- **On non-training days:** take one scoop with morning meal or shake and one scoop with evening meal or shake

Add NO7Rage at 4th week (workout days only)

One scoop contains 2.5 g of creatine monohydrate and 1 g of beta-alanine (BA)

- Take one to two and a half scoops (depending on weight and caffeine sensitivity; start with one scoop and increase to two if not uncomfortably affected by caffeine) approximately 10 minutes before workout (may mix with AminoBoostXXL and continue to consume during workout). See directions on label for weight dosages.
 - NO7Rage contains 175 mg of caffeine per scoop. *As a reference: Starbucks Grande-drip coffee contains ~330 mg of caffeine, close to the same amount in two scoops of NO7Rage.*

Total daily creatine for this plan: Loading phase 20 g/d. Thereafter until fourth week 10 g/d. At fourth week on workout days 12.5-15 g/day and 10 g on non-workout days. Total BA intake 5.2 g/day on workout days (two scoops NO7Rage). 3.2 g on non-workout days. To maximize uptake, creatine intake should be spread as evenly as possible throughout the day and around the workout as described and ingested with carbohydrates and/or protein.

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