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# MPF TRAINING SYSTEMS

## TRAINING PACKET



Name: \_\_\_\_\_

Sport: \_\_\_\_\_

*“The weight room is a facilitator to movement.” – Chris Carlisle*

*“Success is peace of mind which is a direct result of self-satisfaction in knowing you made the effort to become the best of which you are capable.”*

*– Coach John Wooden*

All new incoming athletes,

My name is Joe Marino. I own and operate MPF Training Systems Strength and Conditioning as well as being a Strength and Conditioning Coach, NSCA (National Strength and Conditioning Assn) and USAW (United States Weightlifting) Certified Coach. We specialize in the total development of athletes. I would like to introduce you to our program.

There is a specialized training protocol designed around testing and periodizations which are implemented throughout the season as well as in-season. Unlike many strength and speed coaches, I use these specific protocols and keep track of the athlete's progress throughout these periodizations during the athlete's off-season, as well as during their in-season. Our "*Raise Your Game*" philosophy is more than just the latest research and training principles. I've dedicated myself to helping your athletes not only excel on the playing field, but to realize their personal potential and develop the skills they will need to succeed in life: discipline, confidence, preparedness, self-motivation and leadership.

We produce strong, fast and functional athletes. From high school to college and pros, I emphasize teaching the athlete the correct mechanics in all aspects of weight training, lineal acceleration, multi-directional speed and, of course, injury reduction. Like you, I expect my athletes to perform. If this sounds like something that would interest you and your athletes, to have your athletes perform to their fullest potential possible, please contact me, I would be more than happy to meet with you and your staff to discuss our training system protocols. You can take a look at my website as well as our social media with more than 50000 followers worldwide at [www.mpftrainingsystems.com](http://www.mpftrainingsystems.com)

Athletes will learn:

- **Power and Strength Development** – Proper Teaching of all O-lift and Power lifting techniques and supplemental techniques all designed to help reduce the risk of injury on the playing field. Our programs are based on the Russian Conjugate system of training and is second to none!
- **Speed** - Acceleration, Deceleration, Linear & Lateral Movement Techniques, Running Mechanics, Footwork **Improve First Step Quickness** through a progressive overload system. Instruction in techniques to **improve speed in any sport. We feel we have one of the best developed speed development programs in the country.**
- **Explosive Power** - Plyometrics, Jumping & Landing Techniques
- **Conditioning** - Proper conditioning to improve work capacity
- **Flexibility** - Increasing joint and muscle strength and durability
- **Combine Preparation (High School, College Pro day and NFL)**
- The mental capacity and **winning attitude needed to be your best to excel in sports and life**

Athletes from ALL sports are welcome to learn and study the same techniques used by professional athletes to improve their speed, agility, and acceleration. With a focus on footwork, balance, and explosive drills, MPF TRAINING SYSTEMS Strength and Conditioning can help your athletes become quicker, explosive, faster, and compete at a higher level. Now is the time

to start thinking about your off season strength, speed and conditioning programs for next football season as well as other sports.

Sincerely,

Joe Marino, Owner MPF Training Systems Strength and Conditioning

714-369-5840

[www.mpftrainingsystems.com](http://www.mpftrainingsystems.com)

<https://www.facebook.com/mpftrainingsystems>

<http://instagram.com>

Twitter - @JoeMarino1

## OUR WAY

- Our way of training is not the only way to train athletes, but it works for us.
- Our attitude is if it's not broke, we are not going to try to fix it.

## THE TEST OF TIME

- There are more choices now than ever before in the training world.
- The “NEWEST AND BEST” pass before us almost every day.
- KEEP IT SIMPLE! Don't do so much that you never get better at anything.

## “CALCULATING AN ATTITUDE”

We are going to calculate a winning attitude that we want our team to have and we are going to have that attitude first. If our staff is not excited about what we want our team to do then they won't be excited either.

# STAFF IN-SERVICE TRAINING

- Monthly staff meetings covering every aspect of our strength and conditioning program.
- One voice when it comes to teaching the weightlifting exercises and drills for speed.
- Flawless organization in the implementation of the program on a daily basis.

## OUR BASIC COACHING PHILOSOPHY

- We are here for the athletes; the athletes are not here for us. It is our responsibility to put a good product in the weight room and on the field.
- We are going to coach every rep of every exercise every day.
- No single aspect of the program is greater than the whole.
- OUR ABSOLUTE WORST DAY MUST BE BETTER THAN EVERYONE ELSE.

# TEACHING TECHNIQUE

- We never sacrifice technique in anything we do.
- Technique must be taught in a disciplined atmosphere.
- Introduce new exercises with an empty bar.
- Break complicated exercises and drills into smaller parts.
- Always teach them to do it right the first time.
- Don't be afraid to strip the weight off and go back to the basics if it doesn't look right.

# ORGANIZING THE WORKOUTS

- We always warm up and train speed or power first.
- Imitation exercises with barbell
- Exercises for Explosive Power
- Exercises for Strength
- Exercises for Local Muscular Hypertrophy (Size)
- Endurance and Conditioning Training
- Flexibility and Recovery

### **STRENGTH AND CONDITIONING WEIGHT ROOM RULES**

1. Student athletes must be on time for team workouts.
2. Student athletes are required to fill out attendance book and workout sheets.
3. No non-prescribed workouts will be permitted unless decided upon by the strength and conditioning coach. You cannot do your own workout.
4. Food and drink are not permitted; the only exception is water in a plastic bottle.
5. No one is permitted to leave the facility during a training session-except in an authorized case of an emergency. **NO LEAVING A WORKOUT TO GET WATER-BRING A BOTTLE WITH YOU!**
6. Spitting is not permitted.
7. No gum allowed.
8. Athletic wear is required. Shorts, t-shirts, and athletic shoes are mandatory.
9. No jewelry (studs only) is permitted-leave in your locker.
10. No cell phones, iPods, or electronics of any kind. Place them in the basket in the office.
11. Collars must be used when there is weight on the bar. Safety racks must be in place during squat movements.
12. Spotters must be used at all times.
13. All weights must be racked after use; all equipment must be returned when finished.
14. No dropping of weight plates or dumbbells.
15. No horseplay.
16. Strength and conditioning coach must be present for any and all workouts in the strength and conditioning facility.
17. Respect the coaches and facility.
18. Work hard!

# STRONG ENOUGH

<b>Position / Body Type</b>	<b>Power Clean</b>	<b>Bench</b>	<b>Squat</b>
<b>BIG</b> Linemen (Mature)	<b>320</b>	<b>430</b>	<b>550</b>
<b>High School</b>	<b>230 – 250</b>	<b>275 – 300</b>	<b>400 – 450</b>
<b>COMBO</b> Linemen / Big LB (Developmental)	<b>300</b>	<b>400</b>	<b>500</b>
<b>MEDIUM</b> Small / LB / TE / FB	<b>280</b>	<b>350</b>	<b>450</b>
<b>High School</b>	<b>200 – 235</b>	<b>225 – 275</b>	<b>350 – 400</b>
<b>LIGHT</b> Big RB / Safety	<b>260</b>	<b>300</b>	<b>400</b>
<b>SMALL</b> Small RB / CB / WR	<b>240</b>	<b>270</b>	<b>350</b>
<b>High School</b>	<b>185 – 200</b>	<b>200 – 225</b>	<b>275 – 350</b>



<b>Monday / Thursday</b>		<b>Tuesday / Friday</b>
<b>Speed Warm-up</b>		<b>Power Warm-up</b>
Hip Lifts X 20/leg (2-0-1)		Hip Lifts X 20/leg (2-0-1)
Quadruped Hip Circles X 10 FB		Quadruped Hip Circles X 10 FB
Accelerate X 40 yards Hamstring		Accelerate X 40 yards Hamstring
Accelerate X 40 yards Quad Pull		Accelerate X 40 yards Quad Pull
Backward Run X 30 yards Staggered Ham		F/B Lunge X 15 / 15 yards Staggered Ham
Side Groucho X 15 / 15 yards Saigon Squat		Low Shuffle X 15 / 15 yards Saigon Squat
Str. Leg Bound X 30 yards 3-Way Splits		Str. Leg Bound X 30 yards 3-Way Splits
Carioka X 15 / 15 yards Hip Flexor		Carioka X 15 / 15 yards Hip Flexor
<b>Dynamic Movement</b>		<b>Dynamic Movement</b>
<b>Body Position</b>		<b>Bounding X 20 - 40</b>
<b>Marching X 20 X 2</b>		<b>F/B Line Hop X 20</b>
<b>A-Skip X 20 X 2</b>		<b>Lateral Line Hop X 20</b>
<b>High Knee X 20 X 2</b>		<b>Scissor Hop X 20</b>
<b>MPF TRAINING SYSTEMS</b>		<b>MPF TRAINING SYSTEMS</b>

# ***NUTRITION GUIDELINES***

## **Nutritional Priorities**

1. Hydration: You must drink at least a gallon of fluid a day, preferably water. If you wait until you're thirsty to drink, it's too late. Driving your body without water is like driving your car without oil. If you wait too long to fill up your oil, your engine will seize.

### **Fluids to avoid that actually cause dehydration:**

Tea

Coffee

Soda with Caffeine

Alcohol

**2. Post Workout Nutrition:** This is by the far the most important nutritional feeding of the day. It is important that you have a very high carbohydrate, moderate protein meal. A liquid meal would be ideal. Whether it be a fruit smoothie, a commercial carbohydrate powder, or even a sports drink like Gatorade, it is vital that this nutrition be added to your daily plan.

**3. Meal Frequency:** You must eat at least 3 meals a day. 6 meals a day are optimal. Try to avoid going more than 3 or 4 hours without eating. Make sure you drink plenty of fluids with each meal. This should keep you from eating massive amounts of food at one sitting and keep your metabolism running smoothly.

### **Example:**

7:00AM Breakfast 1-Pint Fluid

10:00AM Snack 1-Pint Fluid

1:00PM Lunch 1-Pint Fluid

4:00PM Snack 1-Pint Fluid

5:00PM Workout 3 Pints Fluid

6:30PM POST WORKOUT NUTRITION!

7:00PM Dinner 1.5 Pints Fluid

10:00PM Snack 1-Pint Fluid

**4. Macronutrient Balance:** You must make sure each meal and snack contains a balance of carbohydrates, protein and fat. Athletes in general eat more than enough carbohydrates, but are extremely protein deficient. Make sure each and every meal contains a good source of protein! The second misconception most athletes have is that fat is bad. Fat is essential for athletes to maintain peak health. Try to limit saturated fats (fats from animals) and increase fats from plant sources.

## **Nutrition Summary**

1. Drink plenty of fluid.
2. Eat smaller meals more frequently.
3. Consume a post workout, high carbohydrate shake.
4. Balance each meal. The eyeball method of determining balance is generally pretty effective. If you have a fist sized portion of protein, eat two fists of good carbohydrates. If you must eat poor carbohydrates simply eat one fist size portion.
5. Eat plenty of lean meat, low-fat dairy, fruits, and vegetables.

## **Meal Plans**

Below are some options for meals throughout the day.

\*Protein is the foundation upon which the rest of the meal should be built.

Breakfast	Lunch	Dinner	Snack
<ul style="list-style-type: none"> <li>• Egg Omelet (w/ ham, Canadian bacon, peppers, onions)</li> <li>• Bowl of Oatmeal</li> <li>• 16 oz. Skim Milk</li> <li>• Apple/Orange</li> </ul>	<ul style="list-style-type: none"> <li>• Chicken Breast Sandwich on Rye or Pumpernickel w/ lettuce, tomato, onion</li> <li>• Kraft nonfat Mayo or mustard</li> <li>• Apple/Orange/Pear</li> <li>• 16 oz. Skim Milk</li> </ul>	<ul style="list-style-type: none"> <li>• 2 Chicken Breasts, Broiled Fish or lean red meat</li> <li>• Chef Salad</li> <li>• 2 Pints Skim Milk</li> <li>• Fruit Salad</li> </ul>	<ul style="list-style-type: none"> <li>• Balance Bar</li> <li>• PR Bar</li> <li>• Any Meal Replacement shake + fruit</li> <li>• Cottage Cheese + fruit</li> <li>• Peanut Butter + Fruit + Skim Milk</li> <li>• Low Fat Yogurt</li> <li>• Mix of nuts/dried fruit + Low Fat Milk</li> </ul>

### Carbohydrate

Good Choices	Fair Choices	Poor Choices
<ul style="list-style-type: none"> <li>• Apples, Applesauce</li> <li>• Cherries, peaches, plums</li> <li>• Pears, blueberries, peaches</li> <li>• Chick-peas, beans, lentils</li> <li>• Barley</li> <li>• Eggplant, mushrooms</li> <li>• Onions, tomatoes, lettuce</li> <li>• Broccoli, brussel, sprouts</li> </ul>	<ul style="list-style-type: none"> <li>• Whole grain breads/rolls</li> <li>• High fiber cereals</li> <li>• Brown or wild rice</li> <li>• Oatmeal</li> <li>• Squash, peas, sweet potatoes</li> <li>• Corn, baked beans</li> <li>• Unsweetened fruit juices</li> <li>• Bananas, grapes, raisins</li> </ul>	<ul style="list-style-type: none"> <li>• Pancakes, waffles, white rice</li> <li>• White potatoes, white bread</li> <li>• Pasta, bagels, sweetened cereals</li> <li>• Fruit drinks, soda, candy</li> <li>• Maple syrup, corn syrup, dates, figs</li> <li>• Corn chips, crackers, pretzels</li> <li>• Honey, molasses, ketchup</li> </ul>

## Protein

Good Choices	Fair Choices	Poor Choices
<ul style="list-style-type: none"> <li>• Skim Milk, Fat Free yogurt</li> <li>• Cottage Cheese, Egg Whites</li> <li>• White Tuna packed in water</li> <li>• White meat skinless poultry</li> <li>• 95% lean ground beef/turkey</li> <li>• Non-fried fish/seafood</li> <li>• Trimmed beef/pork tenderloin</li> <li>• Beans, peas, lentils</li> </ul>	<ul style="list-style-type: none"> <li>• 2% Milk, low-fat cheese</li> <li>• Yogurt</li> <li>• Whole eggs, dark meat tuna in water</li> <li>• Dark meat skinless poultry</li> <li>• 85% lean ground beef/turkey, turkey bacon or sausage</li> <li>• Trimmed pork chops or lamb</li> <li>• Trimmed choice steaks</li> <li>• Nuts, seeds, natural peanut butter</li> </ul>	<ul style="list-style-type: none"> <li>• Whole milk, regular cheese</li> <li>• Ice cream, frozen custard</li> <li>• 75% lean ground beef, fried chicken, fish, seafood</li> <li>• Bacon, sausage, bologna</li> <li>• Hotdogs, pepperoni, salami, beef or pork ribs</li> <li>• Untrimmed steak</li> <li>• Cheese burgers</li> </ul>

## Fat

Good Choices	Fair Choices	Poor Choices
<ul style="list-style-type: none"> <li>• Seeds, pumpkin seeds</li> <li>• Flaxseeds or oil</li> <li>• Primrose oil, olives</li> <li>• Extra Virgin Olive oil</li> <li>• Avocados or guacamole</li> <li>• Fish, clams, oysters,</li> <li>• Scallops</li> <li>• nuts</li> </ul>	<ul style="list-style-type: none"> <li>• Tropical oils (coconut, palm)</li> <li>• Vegetable oil</li> <li>• Peanut oil</li> <li>• Safflower oil</li> <li>• Light Mayo</li> <li>• Sesame Oil, Soybean Oil</li> </ul>	<ul style="list-style-type: none"> <li>• Hydrogenated oils</li> <li>• Partially hydrogenated oils</li> <li>• Bacon, butter</li> <li>• Cream, cream cheese</li> <li>• Sour cream, ice cream</li> <li>• High fat dairy products</li> <li>• Lard</li> <li>• Veal</li> <li>• Lamb</li> </ul>

## Fast Food Options

If you must eat fast food the following brief list is relatively O.K. but you should certainly avoid it if at all possible.

### **Burger King**

2 BK Broiler Chicken Sandwiches  
2 Plain Hamburgers

### **Jack in the Box**

2 Chicken Fajita Pita

### **Carl's Jr.**

2 Grilled Chicken Sandwich

### **McDonalds**

2 McGrilled Chicken Sandwich  
2 McLean Deluxe without the cheese  
2 Egg McMuffin  
4 Small regular burgers. Combine the patties to make two double burgers.

### **Taco Bell**

2 Soft chicken taco  
Wendy's  
Grilled Chicken Sandwich  
2 Chili 2 Plain Hamburger

### **Wendy's**

2 Chili  
2 Plain Hamburger

## **Supplementation**

- If you are already consuming a well-balanced diet, there is no need for any further supplementation
- But, if you feel that you are not getting a sufficient amount of fruits and vegetables in your diet a vitamin/mineral supplement would be a good start.
- If you feel that you are not getting enough good fats in your diet, a good essential fatty acid mix, fish oil, or flaxseed oil would be the best options to cover this part of the diet.
- Protein powders are another way to supplement your diet if you are not getting enough protein in your diet. Whey and casein sources should be prioritized over soy.
- Vitamins C and E are two important antioxidants that may help with recovery and reduce the amount of free radical damage caused by exercise. They should be taken post-exercise along with a post-workout shake.
- Keep in mind that there are hundreds of other supplements on the market. Some of them are legitimate while others may provide fraudulent claims. All supplements are not regulated by the FDA (Federal Drug & Administration), and therefore may or may not work. If you have questions about particular supplements, feel free to contact us.

## **Post Workout**

### **Rationale**

- There is a wealth of research that states that post-workout nutrition plays a key role in recovery and overall performance.
- After a workout the body acts similar to a dry sponge. The body will store the nutrients consumed the way a dry sponge soaks up water.
- The primary fuel used during exercise is carbohydrate and the body needs to restore the carbohydrates used during exercise. The rate of carbohydrate storage is 300% higher immediately after exercise.
- Liquid nutrition is the form of choice post-workout, because it passes through the gut faster and can therefore be used faster by your body.
- The ideal post-workout shake should consist of .3 grams of protein per lb. of lean body mass and 1 gram of carbohydrate per lb. of lean body mass
- Example: 150 lb. Athlete with 15% body fat would need 37 grams of protein and 125 grams of carbohydrates.

### **Tips:**

- Bring your shake to the gym with you, so you can consume it immediately
- If using a meal replacement shake make sure it is pre-mixed or you have a shaker bottle.
- A simple method for post-workout shakes is to use a meal replacement shake (MetRx, Myoplex) and mix it with Gatorade or Powerade.

Calorie calculation for Weight Gain/Loss –

WEIGHT GAIN – BW X .20 (Ex; 150 x 20 = 3000 Kcal)

WEIGHT LOSS – BW X 10 (Ex; 200 x 10 = 2000Kcal)

FOR ATHLETES THAT NEED TO GAIN WEIGHT. REMEMBER ADDED WEIGHT IS ADDED STRENGTH.

FOR ATHLETES THAT NEED TO LOSE WEIGHT. DO NOT CUT CARBS. PROTEIN SHOULD BE HIGH, MODERATE IN CARBS WITH MOST TAKEN IN BEFORE TRAINING, FIELD WORK AND PRACTICE.

NOTE TO ALL ATHLETES: WE HAVE EARLY MORNING TRAINING ON THE FIELD AND IN THE WEIGHT ROOM. MAKE SURE YOU EAT PROTEIN AND CARBS BEFORE YOU ARRIVE. INSULIN LEVELS DROP WHEN YOU TRAIN, IF YOUR INSULIN LEVELS ARE NOT SPIKED AND SUSTAINED DURING THE TRAINING SESSION THE FOLLOWING COULD HAPPEN;

NAUSEA

DIZZINESS

SHAKING

FAINTING (PASSING OUT)

IT IS YOUR RESPONSIBILITY TO SEE THIS DOES NOT HAPPEN.

# THE COMPLETE GUIDE TO CREATINE

## Overview

Creatine is a naturally occurring organic compound produced in the body and also found in meat and fish. It helps your muscles recover and can help you develop explosive strength by supplying energy to muscle and nerve cells.



*jason.lengstorf / flickr*

## How Creatine Works

When a strength athlete supplements with creatine, he or she is simply maximizing their main fuel reserve in the form of muscle creatine and creatine phosphocreatine. Think of creatine supplementation as carbohydrate loading for the strength athlete.

A paper published in the *Journal of Pharmacological Reviews* defines creatine as, “a naturally occurring compound obtained in humans from endogenous production and consumption through the diet.” When we consume meat and fish we also consume creatine. Does this mean vegetarians have no creatine in their body? No. Our body can synthesize creatine within the liver and pancreas from several amino acids including glycine, arginine and methionine. Once creatine is consumed or synthesized, 95 percent is



transported to the skeletal muscle. It is within the skeletal muscle that creatine aids in energy metabolism.

During short intense bouts of exercise, such as sprinting, jumping and weight lifting, our body primarily relies on the phosphagen energy system. The fuel provided by this energy system is named ATP or adenosine “tri” phosphate. The name indicates ATP contains a compound named adenosine and three phosphates. Think of these phosphates as the three stooges: Moe, Curly and Larry.

As a trio the stooges are extremely funny and effective at producing a laugh. However, as individuals their effectiveness diminishes. When ATP is utilized to fuel intense activity one of the phosphates (We will say “Moe”) is separated from the group. Now just imagine the three Stooges minus Moe. Without the ring leader giving a good head butt or strategic eye poke the comedy is extremely diminished along with the effectiveness of the comedic group. So how do we reunite the lost phosphate (Moe) with the group? This is where creatine comes into play. Creatine has the ability to bind with the lost phosphate (Moe) creating phosphocreatine. Then phosphocreatine, with the help of an enzymatic reaction, can deliver Moe back to Curly and Larry reuniting the group and re-synthesizing ATP.

Now we know that creatine is a naturally occurring compound which plays an integral role in energy metabolism. So why can't we just eat meat and fish, not worry about supplementation, and revel in the performance enhancing effects of creatine? The average person, through their diet and endogenous synthesis, stores about 120 grams of creatine within their skeletal muscle. However, we have the capacity to store about 160 grams of creatine. By saturating the skeletal muscle, with supplemental creatine, Moe's separation time from the group is greatly diminished. This ample supply of phosphocreatine results in an increased capacity to perform strength/power-based exercise.

## The Impact of Creatine

Let's dive deeper into the performance enhancing effects by examining a creatine review compiled by some of the leading researchers in the field and published in the Journal of the International Society of Sports Nutrition. Their review of the literature found that roughly 70 percent of all studies involving creatine produced a statistically significant improvement in exercise capacity. The remainder of the studies showed slight performance improvements that were not statistically significant. In fact, no study showed detrimental effects on performance. For short term supplementation they reported average increases of:

- 5-15% in maximal power/strength
- 5-15% in work performed during sets of maximal power/strength
- 1-5% in single effort sprint performance
- 5-15% in work performed during repetitive sprint performance
- 1-2 kilogram weight gain most likely from increases in total body water

For long-term supplementation they reported:

- 5-15% greater gains in strength and performance
- Body mass/LBM gains two times that of placebo groups (evidence of lean body mass gains in addition to total body water gains)

Based on the aforementioned researchers' extensive review of the literature, creatine supplementation improves both performance and capacity in strength/power based exercise. It also appears to aid in lean body mass gains.

This seems too good to be true, right? There have to be some side effects. On the contrary, to date there are no scientific based side effects of proper creatine supplementation aside from weight gain. For most this weight gain would not be considered a negative side effect because the research supports gains in lean body mass and no reduction in performance.

## Is Creatine Right for You?

Creating healthy eating habits will produce the best results, not relying on supplements. But if you're training hard and seeing results, you may want to consider adding a little creatine to complement your healthy diet after the first 6 to 12 weeks of your training program. It's similar to carbohydrate in that it's stored in the muscles and its level fluctuates. We do not recommend creatine to athletes under the age of 18 due to the lack of peer-reviewed, scientific research on the substance in this age group.

It's most effective to take creatine in 3-week cycles, alternating between three weeks of taking it and three weeks without. Take 3 to 5 grams of creatine per day, ideally first thing in the morning on an empty stomach. If you work out in the morning, you could add it to your pre-workout shake.

## Vegetarians and Creatine

Since creatine is only found in animal products, vegetarians have lower levels of creatine than those who eat meat. Vegetarians should consider supplementing 5 grams of creatine a day. As a vegetarian, you will also have to pay special attention to make sure you are getting the protein that you need. You may want to consider using 6 grams of essential amino acids after your training sessions in conjunction with 35 to 70 grams of carbohydrate. Also, make sure to take some type of essential fatty acid supplement, calcium, and a multivitamin to make up for any other lacking [vitamins](#) and [minerals](#).

## Myths About Creatine

One of the most frequently asked questions we receive from athletes, coaches, and parents is: "Should I take creatine?" More often than not there is a hint of doubt and skepticism in their voice. Despite years of research including more than 200 peer reviewed studies supporting the safety and ergogenic effect of this supplement, there are still many creatine myths being perpetuated. These myths include but are not limited to: creatine causes dehydration, cramping, muscle strains/pulls, and kidney problems. Unfortunately, anecdotal evidence and the modern media have helped keep these myths alive and well. It is very disheartening to hear creatine supplementation vilified and even compared to the use of illegal anabolic agents.

A review article published online in the British Journal of Sports Medicine does an excellent job refuting the common myths associated with creatine. Their review of the literature resulted in no scientific based evidence for creatine supplementation leading to cramps, dehydration or renal stress. In fact, they cited research to support that creatine supplementation may aid in hydration and performance in hot/humid temperatures. Several of the reviewed studies showed that creatine increased total body water (proportionally among intra and extracellular compartments) and aided in the maintenance of blood plasma volume. As a result, it can be argued that athletes supplementing with creatine are at no greater

risk of dehydration or cramping than their counterparts, and in fact may be better prepared for performance.

## Caffeine and Creatine

Most sports nutritionists would agree that there is strong support in the research for the ergogenic effects of both creatine and caffeine when used independently. But there have been several studies used to make the claim that coffee/caffeine negates the ergogenic effects of creatine. These studies showed no performance differences between placebo groups and creatine/caffeine loaded groups. Interestingly enough, the studies also showed that coffee/caffeine did not hinder the muscle absorption of creatine.

These two findings seem to conflict each other. If coffee/caffeine does not hinder the absorption of creatine, why don't both studies show increased performance in the caffeine/creatine trials? The answer could lie in the design of the studies. Both utilized a crossover design — meaning that the same subjects were used for all trials. There is nothing wrong with this design as long as there is adequate time between trials to eliminate the ergogenic effects of creatine (about four weeks).

Unfortunately, neither study provided an adequate time period between trials. This means that the ergogenic effects of creatine could have influenced both trials, which could explain the conflicting findings of both studies.

Some would also argue that caffeine containing beverages such as coffee cause dehydration, leading to decreased performance that could negate the positive effects of creatine. However, there is evidence in the research that caffeine containing beverages, when combined with water and used in moderation, do not impair hydration status.

The best way to address this potential problem is to go by how you individually respond to caffeine and to closely monitor your hydration status. If your urine resembles lemonade, then there is good chance that you are hydrated. If your urine resembles apple juice, then chances are you are not hydrated.

## Creatine Supplementation Tips

1. Look for a reliable and safe product that is NSF certified.
2. Choose products which provide creatine monohydrate. Be wary of other formulations such as creatine ethyl ester.
3. Take 3-5g /day with about 30g of easily digested carbohydrate prior to strength/power based workouts.

## Other Benefits

### To Battle Depression

Creatine may even help treat depression by speeding up and improving women's response to antidepressants. [In a small study published in the American Journal of Psychiatry](#), 52 women with major depressive disorder were given an antidepressant along with either creatine supplements or a placebo.

Those who were given creatine supplements showed significantly higher improvement rates than those who were given a placebo.

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**Tags:** [Supplements](#), [Health](#), [Build Muscle](#)

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