



## **HOW TO ELIMINATE ARM PUMP BY COACH MARC SPATARO**

Arm pump is the topic that racers address me with the most. There have been many explanations as to why we get it, how to prevent it, supplements have been made to try and combat it, and physicians have gone as far as to perform surgeries in order to correct it. As a strength and conditioning coach I would like to address ways to improve your training so that you condition and prepare yourself not to get it.

There are 15 muscles in your forearm and 40 in your hand and wrist that are responsible for holding on to the grips, shifting the clutch, applying throttle, and working the front brake. This does not include all of the tendons and ligaments that make up the very complex system that primarily controls our machines. Strengthening your forearms and hands should be a major component in your training program.

As always there is no substitute for riding and racing when conditioning yourself for the race season. When practicing try and chose really rough sections and concentrate on riding them for as long as you can at a race pace. The longer you can last riding the rough stuff the better you will condition yourself. After you have fatigued or have experienced arm pump take a break and stretch your hands and forearms. After your arms have relaxed go back out and ride until you reach fatigue or arm pump again and repeat your stretches. Using stop watches and practicing with riders of equal or better ability will help you keep your pace and assure you are conditioning your hands and forearms to the fullest. Try and ride like this as often as possible and you will soon find yourself over coming this common issue.

Finding the time to ride can be a difficult task, especially if you work, have a family, and attend to life's everyday chores. Fitting in an effective workout is the next best thing for conditioning. While all aspects of training should be addressed in your program, I am going to suggest several exercises and techniques that will help to combat arm pump. Pulling exercises such as pull ups, rows from various angles, and arm curls work the targeted muscles most effectively. These exercises should be performed in a compound manner working multiple joints during each rep. Exercise examples would be a squat and row using a cable or rubber band system or an underhand dead lift into a bicep curl

using dumb bells or a bar bell. Pull-ups are considered a compound movement and should be a primary exercise in any program. Large Grip or “fat grip” handles have been used with power lifters for many years. Large handles and over sized bar bells develop grip strength quicker than normal sized equipment. Within a few reps using these over sized grips you will soon discover the onset of arm pump and grip fatigue. After each set it is important to perform your stretches to help aide blood flow, flexibility, and range of motion. Super sets, drop sets, and circuit style sets are another way to keep constant force on these muscles. Design your workouts using these variations as well changing the tempo of your reps periodically.

A great way to cross train and develop amazing hand, forearm, and core strength is climbing. Both in door and out door rock climbing, cargo net walls, and climbing ropes, are very beneficial and challenging. The constant tension put on the body helps to develop muscle endurance and stability. My Winter Camp (Dec 08) will have a special event held at the nation’s second largest climbing facility, Earth Treks, to introduce racers to this highly rewarding sport.

Rest and recovery are as important as training, especially if you are a racer with a physically demanding job such as a construction worker, mechanic, land scaper, or laborer. Massaging the forearms and hands should be a major part of your program. There are many different ways you can achieve this. A massage therapist would obviously be the best choice, but you can also use hand held devices such as electronic and manual massagers. Much like stretching massage will increase and improve circulation, relax tight muscle fibers, loosen and stretch fascia, and help reduce any occurring inflammation that may exist. Be sure to practice deep, slow, and controlled breaths when receiving massage to further your relaxation.

Poor hydration can play a major role when experiencing arm pump. Hydrated muscles are ones that will perform at their best. Muscle cells function properly when they are at their “fullest” giving stronger contractions and having longer lasting endurance. Hydrating the body should be a part of everyday life not something that is achieved in three days or less before the race. There is no substitute for water, drink as much as you can throughout the day, everyday!

Preparing yourself properly is the best way to over come and defeat arm pump. Try my suggestions and you will soon discover that you efforts will reward you with a pain free ride. For further techniques contact me at [www.motoprotraining.com](http://www.motoprotraining.com)!