

By Karen Wilhelmsen | Photos by Ray Kasprovicz

Wrecking Machine

Mark Munoz's Scientific Approach to Training Builds Explosive Power, Cardio



TRAINING SECTION



Just how does one become a "wrecking machine"?

We went to the logical source ... UFC middleweight Mark Munoz, who is the "Filipino Wrecking Machine." Obviously, the 34-year-old fighter out of Orange County, California, is a natural athlete with a tremendous amount of desire, but he also credits his support team.

"They love me and are there for me, regardless of how I perform," says Munoz, of his coaches at Xyience. "They push me to the limit every day."

With a support team like that, no wonder he's one of the best middleweight fighters in the world. And that support system includes a scientific approach to training, compliments of trainer Michael Palmieri, who specializes in biomechanics—the evaluation of human movement.

"If two fighters are on the ground in a lock, holding on just half a second longer could make all the difference," says Palmieri.

This is why Palmieri—whose training career spans 20 years, certifications, coaching with USA Weightlifting and chairman of Nevada NSCA—measures things like lactic acid in muscles in order to condition fighters to be a step ahead of the competition.

Getting pushed to the limit every day also entails working with equipment such as wired-up heavy bags that measure power and force output to determine a baseline score, which Munoz can then constantly improve upon. It's data like this that tells Munoz's coaches where he

stands in areas like speed, power and longevity—things that simply watching fight tapes over and over don't measure.

"I want to pick his brain on functional strength exercises and am excited to see how he helps me as a fighter," says Munoz.

So you wanna be like Munoz? Get to work. And get a team of experts in every area in the field that measure you're performance with fancy schmancy high-tech devices.

OK, well at least the first part ...

The Writer: Karen Wilhelmsen is UMMA's managing editor.

Fast Facts on Munoz

Age: 34
Weight: 186
Height: 6 foot
Record: 12-2 (as of press time)
Last Fight: July 11, 2012

The Rest of the Xyience Team

In addition to Palmieri, Munoz has Xyience's top-notch team behind him, including:

- A dietician
- Supplement experts to increase his recovery
- An exercise physiologist



The Drills

Number 1

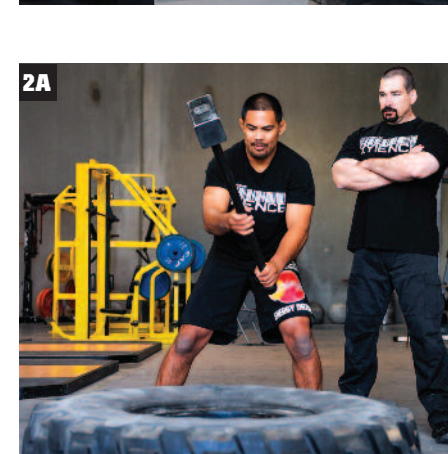
Name: Chest Passes with a Tire

Description: Your partner will stand on the opposite side of the tire (this one shown weighs 750 pounds). When he pushes it toward you, stop it, lower it toward your chest, bend your knees, extend one leg back and explode up as hard as you can until the tire is upright again.

Benefits: Arms, legs, explosive punching power

Sets and Reps: 15 reps, for 25 seconds each rep

Tips: Don't start with a 750-pound tire. Make sure you have a solid stance with one leg behind you. Bear the weight of the tire and explode up.



Number 2

Name: Sledge Slam

Description: Using a 16-pound sledgehammer, slam the tire. Turn your shoulders and use your core rotational strength to hit the hammer onto the tire.

Benefits: Rotational strength, core and helps overhead, powerful punches

Sets and Reps: 3 sets of 20 reps

Rest: 1 minute between sets

Number 3

Name: Push-Ups with a Chain

Warm-up: Do a warm-up set of push-ups with no weights.

Description: With a 50-pound chain around your neck, place your palms on the floor shoulder-width apart and slowly lift up off the ground into a push-up position. Lower yourself down and repeat.

Benefits: Builds arms, chest, core and lower back

Sets and Reps: 3 sets of 25 reps

Rest: 1 minute between sets

Tips: Keep your back straight; from head to toe, you should be one straight line with your arms forming a 90-degree angle.

For a Greater Challenge: To make the routine more challenging, position your hands wider apart, lift one leg while doing the push-ups or do reps using only one arm.

Mark also does "Japanese style" push-ups, pushing the chest closer toward the ground and lifting back into a downward dog position with the hips upward. Ouch ... feel the burn, baby.



Number 4

Name: Ball Lifts

Warm-up: Squats, deadlifts or good mornings

Description: Place your feet shoulder-width apart and hug the ball (this one weighs 160 pounds). While lifting the ball, slowly raise yourself until your legs are parallel to the floor. Place the ball in your lap.

Benefits: Strength, cardio, endurance and lactic acid threshold

Sets and Reps: 3 sets of 10 reps

Rest: 1 minute between sets

Tips: Add more weight, but don't start out with 160 pounds. Gradually, work your way up!

For a Greater Challenge: Clean and jerk the ball over your head. **MMA**

