



EHAB OTHMAN / SHUTTERSTOCK.COM

# Combat Ready

A mixed martial arts expert explains how the techniques that get Ultimate Fighting Championship® competitors into shape can appeal to a broad spectrum of fitness clients.

“877 calories!”

The 35-year-old athlete called out the readout from her heart rate monitor after 45 minutes in our “Train Like an Ultimate MMA Fighter” session at the 2011 IDEA World Fitness Convention™. That’s a lot of burn in 45 minutes, and it gives an idea of the intensity of a mixed martial arts workout.

Widely billed as the fastest-growing sport in the world, MMA combines elements of boxing, wrestling and martial arts. In the IDEA World Fitness session, about 150 of us sampled what it takes to get in shape for MMA--a world of kicks, punches and takedowns best illustrated in the popular Ultimate Fighting Championship events. Though few clients of personal trainers aspire to battle it out in the chainlink “Octagon” of a UFC competition, many may see the appeal of a high-intensity MMA workout. Before we get into the details of the workouts, let’s look at the benefits of an MMA approach to training:

- The high calorie burn appeals to weight-conscious clients.
- Vigorous workouts address the growing popularity of high-intensity training.
- The popularity of MMA means a lot of the marketing is done for you.
- The training model can apply to other sports.
- Classes do not require extra equipment.
- Trainers can find programs to master MMA fitness modalities.
- The programming is “plug and play” with the right education and training.

## MMA Training Basics

The popularity of UFC has generated a huge amount of interest in how MMA athletes stay in shape and prepare for battle. Strength and conditioning professionals must design a training regimen that accurately reflects the metabolic demands of the sport (Schick, Brown & Schick 2012).

An MMA fight taxes the body’s phosphagen, glycolytic and oxidative energy systems (Schick, Brown & Schick 2012), requiring systematic, functional and sport-specific training that enhances these systems. Training techniques for other sports can be used as long as they fit with the sport-specific MMA approach.

Next I’ll explain the steps we go through to prepare fighters for an MMA match. Even if your clients have no interest in engaging in physical combat, they may still enjoy the idea that they’re getting themselves strong enough for a real fight.

## It Starts in Fight Camp

Fight camp is the specific amount of time between matches; ideally it will get the combat athlete to peak conditioning just in time for the upcoming fight. It’s a serious commitment of time, generally 3–6 months.

After the fight, I recommend that fighters take a week off to recover, and then begin preparing for the next bout. The

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PHOTOGRAPHY: MIKE TANG



**Grind with AirFit.** Grab the fabric of the AirFit strap and pull back and forth in an alternating pattern.

prime goal of training is maintaining lean body mass, because there is a direct correlation between strength and anaerobic capacity (Schick, Brown & Schick 2012).

Conditioning coaches for MMA fighters also face challenges with recovery issues, injury prevention, overtraining, proper peaking and off-season weight management. The conditioning coach's job is to create an effective macrocycle conditioning program with three microcycles that help the combat athlete peak at fight time. These are the microcycle phases:

1. strength and hypertrophy
2. explosive power
3. "gas in the tank," or sport-specific conditioning

Let's go through each of these phases:

### Phase 1: Strength and Hypertrophy

MMA fighters need to build a foundation and rebuild from any injuries or muscle imbalances before they can move to the demanding later phases. We worked with 15 UFC fighters and found they needed to spend a minimum of 6-8 weeks in the strength phase. Heavy strength training that increases muscle mass must happen

in this phase; otherwise, the weight cutting that fighters have to do in Phase 3 will be much more difficult.

This phase also establishes a baseline for core strength and overall strength of major muscle groups. Here's our program model for this phase:

1. rotating muscle groups
2. full-body workout
3. multijoint exercises
4. multiplanar exercises
5. 10- to 12-repetition goal
6. PRM (progressive resistance method) formula
  7. 3 complete sets of all movements
8. emphasis on functional movements

### SAMPLE STRENGTH AND HYPERTROPHY WORKOUT

This full-body workout covers multiple joints in multiple angles. Do 3 sets, aiming for 10-12 reps per set, 3 days a week for a minimum of 6-8 weeks:

- single-leg dead lift
- grind with AirFit™
- single-arm chest press on stability ball
- medicine ball twist
- medicine ball diagonal chop
- dumbbell uppercut

- BOSU® Balance Trainer plank to press-up
- leg curl on stability ball
- reverse hyperextension on stability ball

### Phase 2: Explosive Power

Explosive exercises such as plyometrics have been around for years. Although studies have documented that plyometric training can improve muscular power, you need to be especially careful about frequency and duration (Robertson & Lahart 2010).

The challenge with many of these exercises is the nature of the movement: Because they are ballistic, they can cause injury if not properly coached. Also consider the surface that the athlete is training on—combat sports in particular have a high degree of impact and injury potential. We have found it extremely useful



**BOSU ball sprawl.** Put the dome side of the BOSU Balance Trainer on the floor, then shoot the legs backward.

to implement equipment such as BOSU balls, rubberized medicine balls, and fitness trampolines like the JumpSport® to gain all the benefit without the impact.

We've learned that plyometric training helps UFC athletes if they do it after



**Power blocker with Surge.** Take an athletic-ready stance with the Surge at shoulder height. While stepping forward, launch the Surge away from the shoulders.



**Fitness trampoline smash.** Bend down into a crouch position and bounce the medicine ball against the fitness trampoline, then catch it.

the strength phase. We have also found that plyometrics improves the athletes' proprioceptive awareness and decreases injury risk.

### SAMPLE EXPLOSIVE POWER WORKOUT

Do 3 sets in rotating order, 6-8 reps each set, 3 days a week for 4-6 weeks:

- kettlebell snatch
- box jump on fitness trampoline
- explosive inverted row
- BOSU ball sprawl
- single-leg hop on fitness trampolines
- power blocker with Surge™ or sandbag
- fitness trampoline smash
- across toss with medicine ball
- Converta-Ball ground and pound

### Phase 3: Gas in the Tank

This is the sport-specific phase, where all your hard work with a combat athlete comes together. It's very tricky: You want the athlete to peak at the right moment, and yet you must be absolutely vigilant to avoid overtraining. The strength coach must keep these critical factors in mind:

- **Weight cutting.** MMA athletes must fight at a certain body weight, and many go to great extremes to "cut weight" before a match. This requires a slow progression approach and close monitoring by the nutrition coach and strength coach so the athlete peaks on time. Before the fight, MMA athletes have to exercise at a higher intensity to burn extra calories and lose weight. Monitoring proper



#### Cage crush in six parts.

1. Marcus, the trainee, tries to get back on his feet while Coach Kearns maintains the pressure.
2. Marcus makes space as he tries to get to his feet.
3. Marcus gets to his feet by posting one hand on the ball and one on the floor.
4. Marcus continues to get off the cage to work his way back to the center of the ring.
5. Marcus is now off the cage and back in a better fight position.



**Single-hand ground and pound.** Place one hand on the fitness trampoline and one on a small ball, and then throw the ball against the trampoline and catch it.

caloric intake is mandatory.

- **Overtraining.** It's essential to focus on the potential threats of overtraining, which can lead to injuries.
- **Proper "tapering off."** Trainers need to decrease the volume and intensity of the work-outs when approaching the competition (Wells 2008). Because every athlete is different, some may need a few days of rest, while others may require up to 10 days. The coaching team needs to work together and listen to the athlete during the tapering-off phase.



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## GETTING SPECIFIC

The principle of specificity holds that the sports training must reflect the activity to generate the proper training effect. We base our MMA training on a work-to-rest ratio of about 2.2 to 1, though we have seen increased endurance in our athletes with a slightly higher work-to-rest ratio.



**Single-hand ground and pound.** Place one hand on the fitness trampoline and one on a small ball, and then throw the ball against the trampoline and catch it.

We base our formula on the amount of “real time” in the cage or a fight, and many of the exercises in this workout resemble fight moves in the ring. The formula of nine stations—35 seconds of work with 15 seconds of rest, and a 1-minute break between circuits (nine in all)—worked effectively, giving fighters more endurance in the later rounds of a match.

As I noted in the introduction, high caloric burn is another benefit of this stage. We have clocked caloric burn at 475 calories in 17 minutes with a UFC athlete wearing a heart rate monitor.

## SAMPLE GAS IN THE TANK WORKOUT

Do this workout 3 days per week for 4–6 weeks:

- resistance-band wrestling shoots
- wall crush or cage crush
- standing single-leg punches with resistance band
- ground and pound on small trampoline
- BOSU ball knee drop punch



**Hammer punches.** Punch with a pair of sledgehammers to mimic dropping punches on an opponent.



**Hip escape with the Surge.** Lie on the floor with the Surge on top to practice escape moves.



**Band shoots.** Perform an MMA takedown with the trainer pulling on a band for extra resistance.

- hip escape with Surge
- plank row with partner
- hammer punches
- band shoots
- partner band drill (to bring awareness to ways everyday equipment can be incorporated into MMA-style training for groups)

- Thai knees and shoulder roll-out with stability ball
- active rest: 1 minute

This program has proven effective with UFC fighters and other athletes. It can be adapted by trainers everywhere for



**Partner band drill.** In a push-up position with a partner, pull the band back to your hip.

a wide variety of clients. I have used this model effectively with clients aged 8–88.

## Getting Ready to Rumble

An MMA workout is a win for both client and trainer. The client walks away with a unique, fun and multiplanar functional workout. The trainer walks away with an ability to employ current equipment with new proven protocols that can be used for combat athletes or the general population.

After all, everyone has a fighter within them! ■

*Kevin J. Kearns has been the personal conditioning coach for more than 15 UFC athletes. He is the creator of the Burn With Kearns MMA Fitness Trainer Certification System. He also serves as the head strength and conditioning writer for the Fighters Only website. Contact him at [www.burnwithkearns.com](http://www.burnwithkearns.com).*

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