



# Knockout TRAINING

*Secrets of the ring can spark your workouts as well as mentally prepare you for everyday competition.*

**By Joseph A. Arangio, M.S., C.S.C.S.**  
**Photography: Dennis Lane**



Make no bones about it, boxing is a tough game. Early Greek and Roman records chronicle the brutality of both training and competition. Ancient fighters pummeled opponents with leather-bound fists to ensure mutilation and often death. Even Mike Tyson's ear-biting incident pales in comparison to the sport's bloody past.

Yet the gladiators of the early Olympics and modern pugilists share a common characteristic: Guts. Mention the name Rocky Marciano, and boxing enthusiasts describe a strong-willed fighter with a big heart. Marciano's thickly muscled physique and iron will enabled him to absorb punishment, as well as administer arguably the most crushing blows in boxing's history.

Nowadays the strength and conditioning techniques practiced by fighters like Marciano, Lewis, Ali and Holyfield are no longer shrouded in secrecy—buried deep within the catacombs of boxing gyms worldwide. Vintage training tools, like the med-

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icine ball, are experiencing a renaissance among both athletes and weekend-warrior types. These techniques not only strengthen the heart and lungs while forging a sturdy midsection, but also improve performance on the golf course, tennis court and in the yard. Best of all, the mental discipline associated with this training style will make you stand out in the gym *and* the boardroom.

#### **Take Your Medicine**

A fighter's power originates from the core or center of the body. A strong abdomen, obliques and low back go hand-in-hand with success in the ring. This muscular girdle

functions to support the spine, protect internal organs, and connect the upper and lower body. Ironically, the means to a brawny trunk and a tenderizing punch may be collecting dust in the attic.

Good old-fashioned medicine balls prepare the body for dishing out and absorbing high-impact forces associated with many of our daily activities. In the ring this means enhanced punching velocity, power, endurance and, most important, injury prevention. Real-world benefits include a better golf swing, powerful tennis serve and the potential for pain-free yardwork. The answer lies in the simple genius of the ball.





### **Realistic Movement**

Strength and conditioning professionals preach the benefits of resistance training with free weights, in that bars and dumbbells prepare the body for sport-specific movements—unlike machines, which often restrict motion and rarely mimic sport activities. “Medicine balls compliment free-weight exercises by closing the gap between training and competition,” says Chris Cox, M.S., C.S.C.S., a Pennsylvania-based exercise physiologist. “The muscle action of the sport skill can be imitated with a medicine ball,” adds Cox.

Better still, medicine ball training occurs at the speed of competition.

For example, a straight punch is performed explosively, with maximal velocity. So it pays to incorporate a few medicine ball exercises into your workout if your goal is a knockout punch or a lethal tennis backhand. “Forces developed at higher speeds are more specific to the demands of sport,” says Cox. In other words, the ballistic nature of medicine ball training may compliment your existing workout routine.

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# Medicine Ball Exercises

Try these boxing-specific core medicine ball exercises next time you're in the gym.

Start with a 4-pound ball and perform one set of 10 repetitions of each exercise. Progress to three sets of 10 repetitions with an 8-pound ball.



## Chest Pass

Assume a shoulder-width, staggered boxer's stance. Your left foot is forward, if you're right-handed.



Bend the knees slightly. Hold the ball at the chest. Quickly extend the arms and legs as you pass the ball forward into a wall or to a partner.



## Chest Pass Throw

Lay on a flat bench or on the floor with a medicine ball held at the chest. Extend the arms as you throw the ball straight up into the air. Catch the ball over the chest and return the ball to the start position. This movement is performed explosively.



## Seated Solo Twist

Assume a seated position on the floor with the ball behind the back. Quickly reach back, grasp the ball and pass it around to the start position. Repeat in the opposite direction.



## Sit-Up

Sit on the floor with the upper body at a 45-degree angle and the knees slightly bent. Hold the ball at the chest. Slowly sit back while tensing the abdomen. Sit up and pass the ball forward into a wall or to a partner.





### Interval Training Secrets

The best way to reproduce the demands of boxing is to use exercise techniques that mimic a title fight. This means performing three minutes of high-intensity activity, followed by a 60-second rest interval. A well-conditioned fighter can maintain an intense yet measured pace for as many as a dozen rounds in the ring. "Smart training replicates the work-to-rest ratio of the sport, and the intermittent bursts of activity," says Teddy Atlas, world-renowned boxing trainer. Interval training is not for the meek—it is designed to induce fatigue. "This style of exercise may lead to over-

training and possibly injury unless you establish a solid foundation of continuous aerobic activity," says

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Mike Hosak, Jr., P.T., a sports physical therapist from Allentown, Pennsylvania. So consult your doctor before you start jumping rope to *The Rocky Soundtrack*.

# The Exercise

There is an old coaching adage: Failing to plan is like planning to fail. Unless you are an exercise physiologist or have a lot of experience in the sport sciences, it makes sense to consult a strength and conditioning professional in order to maximize your time in the gym. Efficient exercise is paramount.

Start with the beginner workout and slowly progress to the more advanced interval training sessions. Hosak recommends a 5-minute warm-up and cool-down to reduce your chance of injury. First determine your age-predicted maximal heart rate (max HR): 220 minus your age in years. Now multiply your max HR by .60 and .80 to determine the lower and upper limits, respectively, of your exercise intensity. For example, a healthy 28-year-old athlete has a heart rate range of 115 beats/minute (60%) to 154 beats/minute (80%). Interval training performed two to three times per week will improve your ability to sustain physically intense efforts for up to a couple of minutes, adds Hosak. You'll appreciate this stamina the next time you move furniture, rake leaves or shovel snow.



Beginner	Intermediate	Advanced
<p><b>Warm up 5 minutes</b></p> <p><b>3 x 5-minute work intervals jumping rope at 70-75% max HR with 2-minute rest intervals at 50-60% max HR</b></p> <p><b>Cool down 5 minutes</b></p>	<p><b>Warm up 5 minutes</b></p> <p><b>5 x 2-minute work intervals jumping rope at 75-85% max HR with 3-minute rest intervals at 55-65% max HR</b></p> <p><b>Cool down 5 minutes</b></p>	<p><b>Warm up 5 minutes</b></p> <p><b>5 x 2-minute work intervals jumping rope at 85-90% max HR with 2-minute rest intervals at 60-70% max HR</b></p> <p><b>Cool down 5 minutes</b></p>

\*Substitute treadmill running, stationary cycling and stair climbing for added variation.

# Teddy Atlas Interview

*Staten Island, New York-native Teddy Atlas is a professional fight analyst and first-class boxing trainer. His knowledge of the ring helped him coach 17 world boxing champions, notably former heavyweight champions Mike Tyson and Michael Moorer. Atlas discusses the mental and physical benefits of a boxing workout for recreational and professional athletes alike.*

**MM: How do your athletes mentally prepare for the physical demands of boxing?**

**TA:** Boxing is 75 percent mental, so you have to condition the psyche in order to handle the emotional demands of the sport. The mind is like a muscle in that there are drills you can perform to prepare yourself to make the right decisions when you're under pressure—that's what it comes down to, once you're in shape.

You do this by placing yourself in a position where you have to make difficult choices. For example, running early in the morning instead of a more comfortable time later in the afternoon. An early-morning run is an act of discipline that will prepare you to make the right choices in the ring.

After four rounds a boxer is tired. But a lot of this is mental fatigue, in that the boxer does not want to fight for another round. Most athletes tend to choose the most comfortable, most convenient route when they're under pressure. It's human nature to survive, not necessarily to win. So, left to his own devices, an undisciplined or apprehensive fighter will choose to stop after the fourth round. But success in the fifth round won't be contingent on his physical abilities. Victory will depend on him *willing* himself beyond the physical barrier. Most people in the ring and in regular life

don't want to continue. If you're in the office and a difficult situation arises you might find a way to avoid the emotional stressor—miss the meeting or procrastinate closing a deal.

In the ring, a fighter who does not want to go that extra round will never be prepared to deal with situations beyond their physical realm. This is where the coach, in a responsible manner, must choose his window of opportunity. Not all of the time, but occasionally say, "Today you're going five rounds, and if you don't produce in the fifth round, it's going to be six or seven." In other words, don't make excuses. Act like a professional and be accountable for your performance. You're in shape. Instead of finding ways to avoid the round, to con your way through by holding on to the guy, don't think about what round it is, just concentrate on what you need to do.



**World-famous fight trainer Teddy Atlas coached Mike Tyson to his first heavyweight title victory — a devastating knockout of Trevor Berbick back in 1986.**

# How to wrap your mitts before you rap the bag

Protect these injury-prone areas before you slip on a pair of boxing gloves:

## The Wrist

Place the thumb through the loop of the hand wrap. Pull the wrap behind the hand and support the wrist joint with three passes of the wrap.

## The Thumb

Encircle the thumb with the wrap at least once. You should still be able to touch the thumb and the fifth finger.

## The Boss

As you unroll the wrap around the thumb, stretch it across the meaty part of the palm, a.k.a. "the boss." Pull the wrap around the back of the hand a few times—alternately passing over and under the thumb.

## The Knuckles

Spread your fingers and extend the wrap straight across the knuckles. Make sure there is enough padding to create a cushion. Next bring the wrap across the palm and finish on the wrist. Use athletic tape to secure the end of the wrap. We like the easy-to-fasten double-sided Velcro closure found on the cotton wraps from Balazs Boxing (\$5).



These carefully placed bits of advice are paramount to a fighter going to the next level.

**MM:** What are your thoughts on dealing with distractions prior to a training session?

**TA:** Everyone should aspire to be a professional. A professional is organized in his approach, and he has a plan of action. He prioritizes different aspects of his life and adheres to the commitments. He does not allow anything to interfere with the 6 a.m. workout, for example.

You've got to help yourself by organizing your schedule so that you have 100 percent certainty that the early-morning workout or appointment will occur. Sometimes when we are unsure of ourselves, we make unconscious excuses to avoid the situation. Some of those excuses involve things getting in the way—things that we don't consider conventional excuses. The last-minute obligation you forgot about. Or allowing something to get into your path, like talking too much in the gym. These are often subliminal, undermining excuses.

Organize your priorities the way that you are capable of when there's urgency. It's only now that you discover that your excuse is insignificant.

**MM:** Physical pain is commonplace in every athletic experience. What are your thoughts regarding how pain affects a workout session and how to overcome its debilitating effects?

**TA:** First get organized. Make sure that beyond normal aches and pains, you're healthy. A proper warm-up will reduce incidence of injury. Competent coaching and supervision, combined with a properly designed program, will not only reduce pain but also improve performance.

During exercise, take the sensation of pain associated with fatigue and place it somewhere else. Don't think

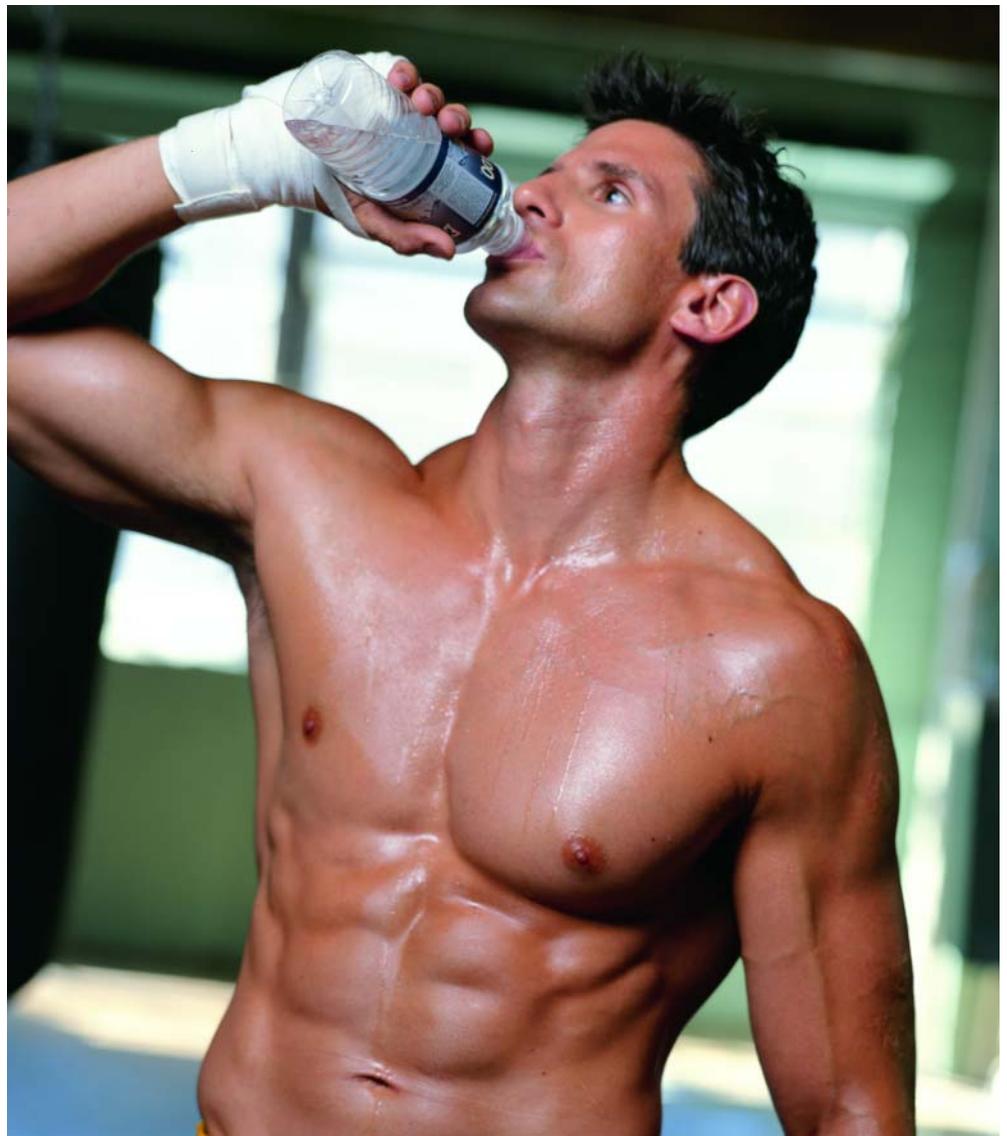
about how your muscles are burning when you're hitting the heavy bag, lifting weights or running on the treadmill. Instead, focus that thought into achieving your goal. First picture what you want to accomplish—time passes quickly for the fighter who is focused on winning. Sometimes the championship boxer will undermine his goal by thinking about how long it will take to reach the end of the fight. Similarly, the casual weightlifter who contemplates the end of the workout may not train with the intensity necessary to achieve his exercise goals. The common denominator is time.

You need to practice transporting yourself into a winning mindset—this state of mind may contemplate success, power or acceptance. Next you learn to erase the things that suspend time. You can't dwell on the difficulty of an exercise, or the fact that you completed three reps but still have seven more to go. A champion will remove this negative thinking and refocus the pain into a vision of the desired goal. Now the pain associated with muscular fatigue becomes a stimulus, which brings him closer to the objective.

**MM: How do you motivate your athletes to consistently train with the intensity necessary to become a champion?**

**TA:** I ask my fighters where they want to be at a certain point in their life. I make them consider what they *think* is difficult versus what, in reality, is difficult. Some think that committing yourself to a weekly regiment to attain a certain goal is tough—because it takes time, discipline, dedication and consistency.

However, if the athlete doesn't train hard, he will have a lifetime to contemplate the success that could have been his. So I ask my fighters: Do you want the pain associated with faithful, organized training or the pleasure of not having to deal with that regiment. Both have a price, yet



the short-term pleasure of skipping a workout results in the long-term pain of underachievement.

One time before a world title, I told a fighter to be strong for 36 minutes—12 three-minute rounds. He never looked at a fight that way because when you're about to approach something difficult, the imagination can make the situation intangible. The mind makes difficult circumstances seem impossible. I told him: If you are strong for the next 36 minutes, the next 40 years of your life will be secure. Secure in the way that you feel about yourself—personally, professionally, socially and financially. You will be able to take care of your-

self and your loved ones. Can you find the discipline to be strong?

But when you're in the moment and you start to panic, time becomes infinite. The regular guy who can't forge the discipline and desire to do a workout has a self-defeating mindset. In reality the workout lasts 45 minutes. He can't afford *not* to dedicate 45 minutes, a few times each week, to something that can improve mental and physical health.

I also tell my fighters to remember how good they feel after training. Again, they must undergo the fatigue associated with exercise in order to experience the post-workout satisfaction.

**MM:** What is mental toughness and how can one attain it?

**TA:** The tough person can separate truth from lies. This person knows that an upset stomach is just an excuse to avoid that big meeting. The individual who makes those feelings disappear isn't tough. Instead, the mentally tough person experiences butterflies yet can understand the difference between the truth (anxiety) and the lie (weakness) associated with it.

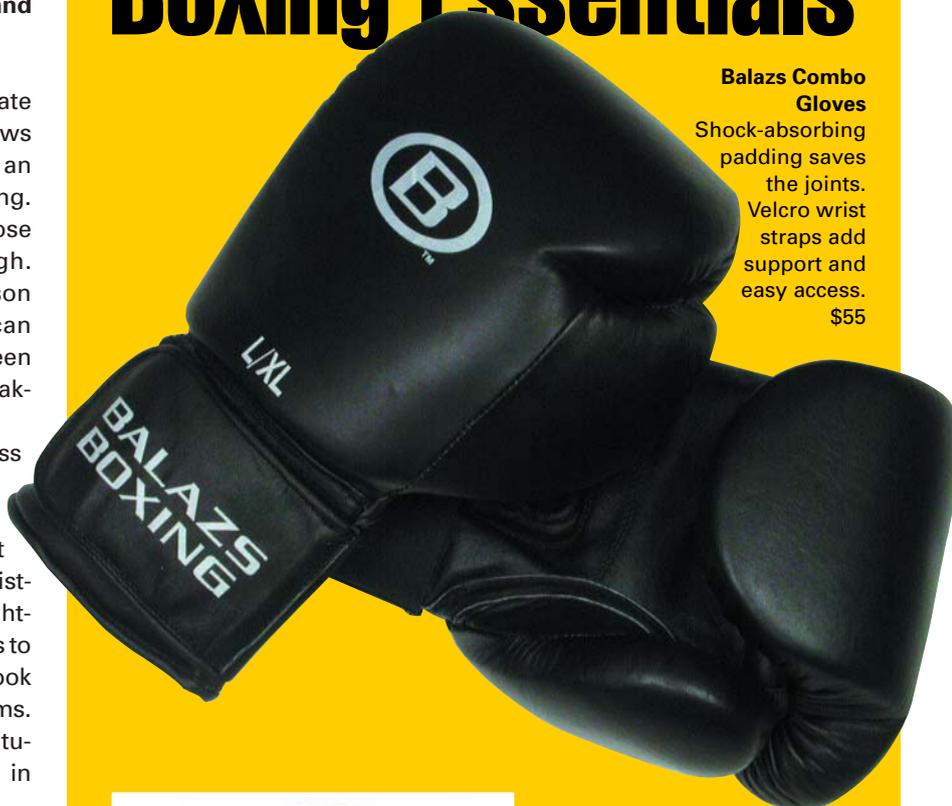
One achieves mental toughness by recognizing the pitfalls that we place ourselves in, to avoid personal accountability and difficult situations. We look to sidestep resistance, in the ring, in life. I tell my fighters to routinely subject themselves to small tests of toughness, and to look for their natural escape mechanisms. Next time you're in the difficult situation, embrace those feelings in order to overcome the fear.

**MM:** How do the physical stressors of the ring help an athlete train for the pressures of everyday life?

**TA:** The athlete is forced to confront stressors in the gym that will prepare him for life. Physical stress makes you take inventory of yourself. You are forced to make choices—do I want to go another round, do I want to throw a punch. If I throw a punch, he might retaliate. In life someone might not take a risk, which may have proven beneficial for the company or their career, because they're unsure of the outcome. So they choose to be complacent rather than take a chance.

In the ring it only takes a few minutes to discover whether or not you've been cheating. You see the opening and, if you're mentally and physically prepared, throw the knockout punch. Now you reap the fruit of your labor—which rewards you with the title and your future success. In life this may take five years, 20 years, or it may never happen. 

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