Advanced MMA Power – Master Manual

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Disclaimer

There is always a risk of injury when performing any type of exercise. You must consult with your physician prior to beginning any exercise program or if you have any medical condition or injury that contraindicates physical activity. If you experience any light-headedness, dizziness, or shortness of breath while exercising, stop the movement and consult a physician. The exercise information is not meant to provide any medical advice; it is for educational purposes only. No liability is assumed by Eric Wong for any of the information contained herein.
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Preface

If you’re ready to take your level of strength, conditioning, and POWER to another stratosphere, then this program is for you.

Being a successful fighter takes discipline, hard work, and a strong mind to endure the intense training and physical pain.

Following this program will allow you to maximize all of your energy and bringing you you to your full potential.

At first glance, if you simply look at some of the exercises contained in the Training Guide, you may think that there's nothing special - that you've seen this all before.

I assure you this is not the case. Yes, many of the exercises are standard exercises that can be found anywhere, including my original Ultimate MMA Strength and Conditioning program. There are some unique and especially effective exercises included in this program that you've probably never done before.

But there are 3 reasons that set this program apart from the rest:

a) The manipulation of acute exercise variables such as tempo, rest, reps, and intensity to develop highly specific components of MMA strength, conditioning, and power

b) The choice of exercises to most efficiently develop the body and nervous system that are specific to the needs of a mixed-martial artist

c) The implementation of all of this into a simple, easy-to-follow program that's designed to peak you for a fight and that you can get started on right away

You’re unlikely to come across a program that puts everything together in one convenient spot for you like this, so congratulations on your wise decision!

Follow This Program EXACTLY and You’ll Develop Unshakeable Confidence in Your Ability to Compete with Any Opponent
Throughout the book, I’ll provide explanation and references for everything you’re doing. Since I started training mixed-martial artists in 2005, I’ve been dedicated to studying and implementing new strategies and techniques on how to train for mixed-martial arts.

My first program, the Ultimate MMA Strength and Conditioning program, was created for mixed-martial artists to cut through the confusion and conflicting advice so that they had an easy-to-follow, step-by-step system to use to get maximum results in a minimum amount of time.

Hundreds of fighters from around the world have had great success with the program. If you’re one of them, I thank you for trusting me and implementing my program into your training.

Advanced MMA Power builds on this by integrating new concepts based on scientific research and my practical experience over the 4 years since Ultimate MMA was first created.

I can say without hesitation that I’m extremely proud of this and excited for you to follow it because I know what you’ll feel like after going through the program.

If you have any questions at all about the program, please don’t hesitate to contact me at mma@ericwong.ca. Thanks for the opportunity to be your strength and conditioning coach, I hope to help you in your quest to be the best fighter you can be.

Sincerely,

Eric Wong, BSc, CSCS
Your MMA Performance Coach
Minimum Strength Requirements

As you know, there are certain requirements you must meet to get the most out of the Advanced MMA Power Training System.

To review, these requirements are:

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Minimum 3RM</th>
<th>Example for 185 lb Fighter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bench press</td>
<td>1.0 x bodyweight</td>
<td>185 x 1.0 = 185 lbs 3RM</td>
</tr>
<tr>
<td>Back squat</td>
<td>1.25 x bodyweight</td>
<td>185 x 1.25 = 230 lbs 3RM</td>
</tr>
<tr>
<td>Deadlift</td>
<td>1.25 x bodyweight</td>
<td>185 x 1.25 = 230 lbs 3RM</td>
</tr>
<tr>
<td>Chinup</td>
<td>12 reps in strict form</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>through full range (no kip)</td>
<td>n/a</td>
</tr>
<tr>
<td>Side bridge</td>
<td>1 min per side</td>
<td>n/a</td>
</tr>
<tr>
<td>Prone bridge</td>
<td>1.5 min</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**NOTE:** Unless you already know your 1RM, I recommend you test your 3RM instead because it’s a lot safer and easier on the joints. Then, when you need to, you can estimate your 1RM if you know your 3RM by dividing your 3RM by 0.92. For example, if you can lift 200 lbs for 3 reps, 200 lbs divided by 0.92 = 222 lbs. All fitness assessment directions can be found in the Training Guide.

If you use this program without having developed this base level of strength, you won’t get the full benefit of the program and you’d be better off working on developing these levels of strength. But you don’t want to focus solely on a standard strength training program, since as an MMA fighter, you have specific needs that must be taken into account, so I recommend you first go through 1 or 2 cycles of my Ultimate MMA Strength and Conditioning Program, then progress to Advanced MMA Power.

Advanced MMA Power will give you explosive strength and power endurance, but if you don’t already have strength or power, you can’t make it explosive or last long.

So, assuming you’re here with the right qualifications, then let’s get started…

www.AdvancedMMAPower.com

By Eric Wong
Adaptations in Your Body After Following this Program

When you follow this program, many different changes will occur in your body. When you cycle through the entire program over and over, you continue to solidify the changes in your body and make improvements in your power, endurance, explosiveness, and more.

Here’s an overview of the unique adaptations and improvements that will happen to your body as a result of following the Advanced MMA Power program:

- **Brain / Central Nervous System**: increased rate of force development, improved intramuscular and intermuscular co-ordination through the modified complex method and use of 3D training
- **Heart**: increased left ventricular diameter, stroke volume, and cardiac output, decreased resting heart rate through steady-state aerobic training and interval training
- **Liver**: improved rate of lactate breakdown (gluconeogensis) through systemic lactic training
- **Joints**: improved mobility and range of motion through dynamic mobility and joint mobilization exercises
- **Muscles**: improved ability to use oxygen, increased muscular size/lean body mass, improved strength, power, and endurance, increased tolerance to and rate of lactate clearance and utilization through all of the various means in the program
- **Soft tissue quality**: trigger point elimination, breaking up of adhesions and scar tissue through self-myofascial release exercises
- **Posture**: decreased hunchback (thoracic kyphosis), retraction of shoulders and scapula through corrective exercises
- **Core**: increased multi-planar rotational and dynamic stability through 3D training and medicine ball exercises

You’ll learn not only exactly what to do to achieve all of the adaptations mentioned, here, but you’ll also learn why and how the methods outlined change your body, resulting in a faster, stronger, more powerful you.
PART 1

Injury Prevention
Tissue Quality

Being a mixed-martial artist requires constant training and exertion, day-in, day-out. You know this, and I know this.

Because you’re tougher than most people out there, the little aches, pains, and annoying little problems that go along with consistent training are often ignored.

Unfortunately, doing so can lead to serious injuries and keep you in the crowd when you’d rather be under the spotlights.

One technique that’s become popular in recent years is self-myofascial release (SMR) aka foam rolling.

That’s because when you learn how to apply SMR effectively and you use it consistently, your muscles will feel looser and more free than ever, and your training and enjoyment of training will improve dramatically because of how good you feel.

SMR can be an excellent complement to massage therapy, as a good massage therapist can get in places and perform techniques that the foam roller and other tools can’t.

But massage is expensive and you need to be consistent (like anything) to see results. That’s the beauty of SMR - once you get the tools, you can give yourself massages multiple times a day if you want. And the tools are cheap and easy to find:

The tools in your SMR toolbox
Here’s how SMR is beneficial to Mixed-Martial Artists...

Soft tissue restrictions are those ‘knots’ you get in your muscles that hurt like heck when someone sticks their finger into them, but feel much better after.

When you have these restrictions, also known as trigger points, they don’t allow your muscles to function properly, so other muscles compensate for the restriction, which can lead to an injury.

For fighters, a common example is in the hip flexors – because these muscles are worked hard when you spend time in your guard, they can develop trigger points and contribute to a muscular imbalance, which can lead to a low back injury.

Power is also decreased because of reciprocal inhibition of the glutes - basically, when one muscle is overworking (tonic) and chronically tight (hip flexors), the muscle on the other side of the joint (glutes) shut off. This means when you need your glutes to pull off a big takedown, they won’t be as explosive.

You can treat these restrictions through massage therapy, or you can do it yourself using a foam roller to perform SMR.

SMR works just like a massage therapist would to get these knots out of your muscles. When you perform SMR, you’re basically working the knots out. You’re also squeezing blood out of the muscle, much like wringing out a towel. This helps to speed recovery time, especially when you do it after a training session.

SMR used before training will allow your muscles to function optimally by breaking up any adhesions and trigger points that may be present, allowing your muscles to function as they’re supposed to without any restrictions.
**Joint Mobility**

Sometimes, joints can become immobile because of lack of use through their full range of motion. Injuries can also lead to joint immobility because scar tissue and adhesions can form, limiting the range of motion of the joint.

The joint can get stuck in this limited range of motion because it wasn’t able to move through its full range. Use it or lose it!

When this situation occurs, all of the stretching in the world won’t make a difference in your flexibility, since it’s not the muscles limiting you, but the joint itself.

Fighters often develop joint mobility issues in the upper back – specifically the thoracic spine area:

This is because when you’re in your fighting stance you round forward to keep your chin tucked away from danger, and when you’re on the ground, you tend to be rounded forward when you’re on top throwing bombs or wrapping someone up in your guard.

Plus, the demands of everyday life generally promote poor posture, so joints in the upper back and shoulders can become immobile.
As part of this program, you’ll learn how to mobilize the thoracic spine and glenohumeral (shoulder) joints to ensure that you have access to the full range of motion that your body offers.

The popular chiropractic manipulation is an example of mobilizing joints. The manipulation forcefully takes a joint past its current range of motion, giving you access to a new range that you didn’t have before.

Although we won’t discuss the pros and cons of chiropractic manipulation here, one thing that is necessary to ensure that you get the most out of joint mobilization is to ensure that the muscles are functioning properly within the new range of motion after the manipulation.

If the muscles aren’t worked properly immediately following the manipulation, they’ll pull the joint back to its normal resting place and cause the same immobility to reoccur.

That’s why in this program, you perform these joint mobilization exercises then immediately follow up by static stretching to restore proper muscular length, immediately followed by dynamic mobility exercises.

Doing so will reset your neuromuscular system to integrate the new range of motion into your body’s capabilities, preventing the joint immobility from ever reoccurring in the future.
Muscular Imbalances

Strength imbalances contribute to length imbalances and vice versa. For example, the anterior shoulder muscles (anterior deltoids and pecs) are used more than their counterparts, the posterior shoulder muscles (posterior deltoids, external rotators, rhomboids, etc) because of the boxing stance and throwing lots of punches.

Over time, these muscles will become stronger because they're used more. Because the muscle group in the front that pulls the shoulders forward are stronger than the muscles on the other side of the joint, they will cause rounded shoulders and excessive thoracic kyphosis.

An excessive thoracic kyphosis and rounded shoulders makes it harder for your lungs to fully expand which limits your ability to take in air and oxygen, which will limit your ability to perform at a high level and/or recover.

A position of poor posture also requires more energy to move than a body in good posture, taking away energy from your training, not to mention your daily life.

The solution to this muscular imbalance is to stretch the strong, shortened muscles and strengthen the lengthened muscles.

The same solution is used for all muscular imbalances - stretch the short, tight muscles, and strengthen the weak ones. Here are the most common muscular imbalances related to posture found in fighters. The cure for these issues is built into the training program.

<table>
<thead>
<tr>
<th>Common Muscular Imbalance</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Short, tight abdominals, weak lumbar extensors.</td>
<td>2. Stretch abdominals, strengthen lumbar extensors.</td>
</tr>
<tr>
<td>3. Short, tight internal shoulder rotators, weak external shoulder rotators.</td>
<td>3. Stretch internal rotators, strengthen external rotators.</td>
</tr>
<tr>
<td>4. Short, tight pecs, weak rhomboids and middle traps.</td>
<td>4. Stretch pecs, strengthen rhomboids and middle traps.</td>
</tr>
</tbody>
</table>
Dynamic Mobility

When people think of mobility, they immediately think of flexibility, then usually think of static stretching.

However, there is an important distinction between flexibility and mobility.

- **Flexibility** is the ability of your muscles to achieve a certain range of motion
- **Mobility** is your ability to move in and out of your available range of motion

So you can stretch and stretch until you can tie yourself up like Gumbi, but without the strength to use the range of motion, it’s not very useful to you!

Static stretching is very useful to achieve increases in range of motion and restore muscular balance, but dynamic mobility exercises allow you to use your increased range of motion.

Dynamic mobility exercises also allow you to better maintain new ranges of motion that you’ve achieved with static stretching, so they work synergistically together.

They’re also a great way to warmup before any type of exercise or physical activity, limiting your risk of injury and improving your performance by increasing your core body temperature, lubricating your joints, and priming the nervous system to use all of your muscles in an integrated way.

The other component to a good warmup is to include Muscle Activation exercises. These exercises are targeted specifically to muscles that tend to be weak and inhibited, mainly the glutes, hamstrings, and scapular retractors.

Activating these muscles in the warmup helps get them primed for when you train so they can be used during the exercises they’re supposed to be used for. If you don’t activate inhibited muscles through these special isolated exercises before you perform integrated exercises, they will not fire and will perpetuate a muscular imbalance.
Core Stability

When you think about core stability exercises, which first come to mind?

If you said crunches, then you’re like most people.

But contrary to popular belief, crunches are not core stability exercises. Think about it – they’re a dynamic movement where you move up and down.

Stability implies staying still and being stable, not moving, and is what the core is really designed for.

Examples of basic core stability exercises are planks and side planks.

That’s not to say that you want to walk around like you have a back brace on all day, but when you workout, you want to train your core to be stable as that is what will prevent back injuries and help keep you in proper alignment.

Without proper core stability, your lumbar spine and sacroiliac joints can be too mobile. Over time, just like carpal tunnel syndrome, these small, repetitive movements can result in disc injuries, nerve impingements, and/or vertebral joint problems.

And once you’ve got an injury in the ligaments and/or discs of the lumbar spine or SI joint, you’re in for slow and often incomplete recovery.

But developing proper core stability will keep the movement in the lumbar spine and SI joint to a minimum, so you can keep training without experiencing any long layoffs from due to back injury.

Remember, you need a base level of core stability to be able to perform the more advanced core exercises in this program, so if you can’t hit these #’s, you need to focus on these basic exercises before moving on to more difficult core stability exercises. Do them 3 x/wk and you’ll be there in 2-4 weeks.
Injury Prevention for the Shoulder

When you throw lots of punches and combos in training, you’re working your anterior shoulder and internal shoulder rotator muscles more than their counterparts.

Because of this, they will be stronger and more developed.

As you’ve already learned, strength must be balanced across your joints so that you don’t pull the joint out of alignment causing injury.

Also, muscular imbalances at the shoulder are very coming due to boxing and this can easily lead to nerve impingement, pain, and weakness.

So making sure these two things are taken care of is the first step to shoulder health.

But the shoulder also requires some specific training techniques to ensure its health, namely eccentric-reactive training.

Eccentric-reactive training allows you to stop yourself from throwing your shoulder out of its socket by giving you the ability to decelerate your arm.

This is needed to pull your punch back at the end as opposed to hyper-extending the shoulder joint.

Two special exercises with a weighted ball are used: the Punch-catch and the External rotation catch and throw.

You’ll need a partner to do these exercises properly, so if you don’t have a workout partner, the best time to do them would be before or after your grappling training sessions – just bring your weighted ball and do a few sets to keep your shoulders in good shape.

You’ll be performing these exercises for 3 weeks, then cycling off for 4 weeks where you’ll work on general external rotator strength before coming back to them.
Injury Prevention for the Neck

Your neck takes a beating in MMA. From chokes, to absorbing punches and kicks, to rolling in and out of positions - your neck is constantly being abused.

And neck injuries are terrible - if you get one it can mean that everytime you bend your neck or turn your head you experience pain.

So doing a few little exercises to help prevent any injuries is probably worth your while.

The neck is designed for stability, not dynamic strength or power. It needs to be mobile, but you don't want it loose, otherwise the vertebrae are at risk.

So all of the injury prevention exercises for the neck in this program are based on stability.

One thing you must do when performing the neck exercises is keep your neck in neutral position and keep the tongue on the roof of your mouth.

Keeping the tongue here allows you to use some deep neck muscles that are only able to work when the tongue is in this position. When the tongue is loose and flapping around, or if you're panting like a dog, these muscles aren't anchored down, rendering them useless.

You'll be performing these exercises with your shoulder injury prevention exercises, cycling between 2 separate 3-week programs.
## Injury Prevention Summary

Here’s a quick summary table to bring everything in Part 1 together:

<table>
<thead>
<tr>
<th>Area Addressed</th>
<th>Methods</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tissue Quality</strong></td>
<td>Self-myofascial release using the foam roller or ball</td>
<td>Required before workouts, recommended daily and after workouts</td>
</tr>
<tr>
<td><strong>Joint Mobility</strong></td>
<td>Joint mobility exercises</td>
<td>Before workouts</td>
</tr>
<tr>
<td><strong>Muscular Imbalances</strong></td>
<td>Stretching short, tight muscles, strengthening long, weak muscles</td>
<td>Integrated into the Advanced MMA Power Training Program</td>
</tr>
<tr>
<td><strong>Dynamic Mobility</strong></td>
<td>Dynamic mobility warmup exercises</td>
<td>Before workouts</td>
</tr>
<tr>
<td><strong>Core Stability</strong></td>
<td>Core stability exercises</td>
<td>Before and during workouts</td>
</tr>
<tr>
<td><strong>Shoulder Injury Prevention</strong></td>
<td>Strengthening and eccentric-reactive exercises</td>
<td>2 times per week for 3 weeks, then 1 week off</td>
</tr>
<tr>
<td><strong>Neck Injury Prevention</strong></td>
<td>Neck stability exercises with the swiss ball</td>
<td>2 times per week for 3 weeks, then 1 week off</td>
</tr>
</tbody>
</table>
PART 2

ADVANCED MMA POWER
Advanced MMA Power Development

WARNING: this section contains some advanced knowledge and information. It may get a little technical and confusing at time, but don’t worry – I’m simply providing this info because I believe that if you understand what’s gone into this program, you’ll see the dedication I’ve put into it to make it as complete and effective as possible, and you’ll fully dedicate yourself to it, getting great results and hopefully spreading the word. 😊

So if you don’t get everything, that’s cool, you don’t need to, all you really need to do is follow the training program as outlined. Let’s get started...

Power is your ability to generate a high level of force, fast. In mathematical terms (I am Chinese and a math lover), it looks like:

\[
\text{Power} = \text{Force} \times \text{Velocity}
\]

So to increase power, you can increase force, increase velocity, or ideally, increase both.

For complete power development, you need to train 2 systems:

1. Your neuromuscular system
2. Your energy production system

Now both systems are intertwined, meaning you can’t work one without working the other. But each system requires a different protocol to achieve maximal development.

And each of these systems has different components to develop, which we’ll discuss now.

Neuromuscular Development

For full neuromuscular development, you need to improve 3 components:

1. Your nerve conduction velocity
2. Intramuscular coordination
3. Intermuscular coordination
1. Nerve Conduction Velocity

Neuromuscular development starts in the brain. Your brain is the leader and directs and organizes how everything is going to work.

So the first step for any movement is for the brain to say, “Hey muscles, I want you to do this movement.”

For beginners, the path the message travels is very inefficient – it’s like taking a long, looping road home instead of a straight line. But with strength training, the brain quickly discovers the straight line from Point A to Point B.

The speed at which this message travels is called your nerve conduction velocity. Because you’re a more advanced lifter (or you should be, if you’re going to follow this program), this component is pretty high, and requires advanced methods to further its development, namely reactive training and starting power training.

Reactive training involves quickly absorbing a force then generating force in the opposite direction. An example is a depth jump – you step off a box of about 2 feet, then imagine the ground is on fire and you want to spend as little time as possible on the ground before you spring back up, without touching your heels. Any jumping exercises or explosive exercises like clap pushups where you spend minimal time on the ground between reps are reactive exercises.

Starting power is your ability to turn your muscles on from a dead start. Think of an Olympic lift like a Power clean. The bar is on the floor, and you must explode and pull it up as fast as possible to get it to your shoulders.

While Olympic lifts will build your starting power, I feel they’re too technical and they can beat the body up too much to recommend to fighters, who are already beaten up enough.

They’re not the only way to develop starting power anyway, so we’ll stick with safer and just as effective methods like Pushups from a dead start and Box squat jumps.
2. Intramuscular Coordination

Once the message arrives at the muscle, it contains how much force is needed. For maximum power, all of the muscle fibres are needed. But depending on your ability to fire all the fibres, you may or may not be achieving full power.

This is called your motor unit recruitment.

Your ability to recruit all of the muscle fibres improves with maximal strength training. Again, since you’re on this program, this ability is already quite high, and working to improve it further won’t provide you with a good return on your time and energy investment.

Now there are two more aspects of intramuscular co-ordination: rate coding and synchronization.

Rate coding is how fast the motor units (and muscle fibres) are fired. The faster they fire, the more powerful you’ll be.

Think of rate coding as the RPM in your car - the higher the RPM, the faster you go.

Synchronization is how well organized you fire your muscle fibres. If you can fire all your fibres at the same time, you’re at full power. If you’re out of sync, you lose power.

Think of a rowing team - if they're rowing out of sync, they won't go as fast.

To develop your rate coding ability, you want to employ high velocity training. So explosive and fast exercises using your body weight or less than 30% of your 1RM will develop this component to maximize your power.

Synchronization is developed through maximal strength training.
3. Intermuscular Coordination

Finally, we have intermuscular coordination. While INTRA-muscular coordination is how well you can fire all the individual muscle fibres within a single muscle, say, the biceps, INTER-muscular coordination is how well you can coordinate different muscle groups to perform a movement, for example, coordinating the pecs, shoulders, and triceps in a Bench press.

(Don’t worry if you don’t get this right away, it took me 5 years of university to figure out the difference between inter and intramuscular coordination!)

Obviously, most movements you perform in MMA require multiple muscle groups for proper execution.

So how do we go about developing excellent intermuscular coordination?

2 ways: through maximal strength development in the basic lifts, and through the use of increasingly challenging exercises, which I devote the section in this book called ‘3D Training’ to.

OK so that may have been a bit confusing, so here’s a quick summary of how we’re going to develop your neuromuscular system for Advanced MMA Power:

1. Nerve conduction velocity – how fast the message travels from brain to muscle
   a. Reactive training eg. Side-to-side hops
   b. Starting power training eg. Dead start pushups

2. Intramuscular coordination
   a. Rate coding – how fast the muscle fibres fire
      i. High velocity training eg. Bodyweight jumps
   b. Synchronization – how well the muscle fibres fire together
      i. Maximal strength training

3. Intermuscular coordination
   a. Maximal strength training
   b. 3D training

Now we move on to...
Energy System Development

The 3 energy systems are the Aerobic, Anaerobic Lactic (AnL) aka Glycolytic, and the Anaerobic Alactic aka ATP-PC aka High-energy phosphate

This graph is the typical graph that you’ll encounter when learning about the energy systems. It shows the capacity that each system has when they are under maximal demand from cyclic work (running, biking).

But MMA is not a cyclic sport, many different movements are used that happen in bursts, so the graph does not apply so nicely to MMA.

Each energy system must be trained for endurance, power, and power-endurance, which are 3 distinct components, which you’ll learn about soon.

Basically, what you need to know is that you need all 3 energy systems to be working together at a high level for optimal MMA conditioning.

**KEY POINT:** The better trained the aerobic system, the less you’ll have to rely on the anaerobic systems, and the faster you’ll recover when you do need to tap into the high-powered anaerobic systems.


**Workout Difficulty Does Not Equal Workout Effectiveness**

The mistake that many MMA fighters currently make is in thinking “If the workout is hard, it's good.”

Do you think this? If you do, I’m going to convince you otherwise throughout this book. Sometimes you’ll feel like you won’t be working hard at all, but as you’ll learn, how hard you work does not equal effectiveness in the cage.

Fighters who rely solely on CrossFit are guilty of this training error. Yes, CrossFit workouts are hard, because you’re trying to do everything as fast as you can.

If this mentality were true and a harder workout was always better, then the best workout would be a 1000 pushups workout for time.

This is a hard-ass workout, but it'll do **NOTHING** for your MMA specific strength or conditioning.

If you’re of the hard is better mentality, then what you’re basically doing is maximizing work while minimizing rest.

Here’s a very general overview of the interaction between work and rest:

- **WORK**:rest = Improved Endurance
- **WORK**:REST = Improved Capacity
- work:REST = Improved Power
- work:rest = Improved Power-Endurance

When you want to improve your endurance, you work lots and minimize rest. To improve capacity of a system, work lots, and rest lots. For explosive power, do a small amount of work with complete rest of the system before the next work interval. For improved power-endurance, perform short work intervals with short rest intervals.

Now this is just a VERY GENERAL overview. You’ll learn the specifics of how to utilize the correct work:rest ratio to achieve different components of endurance, strength, and power and effect specific aspects of your body.
Aerobic Training

If you've been paying attention to what’s been going on in the MMA strength and conditioning world over the past couple of years, you may think that classic steady-state aerobic training methods, also known as **long-slow distance (LSD)** training, are completely useless to the mixed-martial artist.

Years ago, many fighters performed this type of training almost exclusively, so when they tried out interval training methods, they got a boost in fitness and consequently declared, “LSD is dead. Long live HIIT!”

Unfortunately, as with many things in life, the extreme point of view is not ideal.

Steady-state and interval training are often referred to as ‘cardio’ because they result in adaptations in the cardiovascular system.

Now both steady-state and intervals work to increase something called stroke volume. Stroke volume is the amount of blood pumped out of your heart with each heart beat.

You can increase stroke volume in 2 ways: increase the size of the heart chamber that fills with blood (left ventricle volume), and increase the percentage of that blood that gets pumped out with each beat (ejection fraction).

Strength training, interval training, and any type of training that is either high pressure (weights) or brings your heart above 150-160 beats per minute results in concentric hypertrophy of the heart, which means the heart walls get thicker and stronger, helping to increase the ejection fraction, which is the percentage of blood pumped with each beat. For example, an untrained person might have an ejection fraction of 60%, then after strength training, it increases to 80% - so 20% more blood gets pumped out with each beat because the heart is stronger.
Steady-state aerobic training on the other hand causes a specific adaptation in the heart known as **eccentric hypertrophy**.

What this means is that the heart adapts by stretching and increasing the amount of blood it can hold in the left ventricle.

This benefits you because with each beat, the heart has the potential to shoot more blood through your system, to give your muscles more oxygen to continue working.

This is a good thing, and when you combine it with strength and interval training, you get optimum results – lots of blood, and a high percentage of it getting pumped through your body.

To perform LSD training correctly and in the most efficient way possible, you must train at a low-intensity, keeping your heart rate around 150 bpm.

The best way to figure this out is to get a heart rate monitor or at least use the monitors provided on cardio machines.

If you don’t have access to either, err on the side of lower intensity. When you’re training at 150 bpm, you won’t feel like you’re pushing yourself too hard, and you should be able to hold a conversation easily.

I recommend you use a stationary bike for this type of training, as studies have shown that cyclists have greater left ventricular volume than other endurance athletes. But you can use anything, even mix up what you do, eg. jog, bike, skip, and do MMA for 30-60 minutes, with your HR around 150 bpm.

This type of training is best performed in blocks of 4 - 6 weeks, 3 - 5 times a week, further away from your fight. So if you’ve got 16 weeks before your fight, focus on this type of training in the first 4 weeks of training, then move into more high-intensity workouts. Any training including sparring will help you achieve this adaptation, as long as you keep your heart rate around 150 bpm. You know you’re good when your resting heart rate is sitting in the 50’s in the morning.
Anaerobic Lactic Training

Welcome to hell.

In my opinion (and that of many of the fighters I train) anaerobic lactic training is the hardest, most brutal, and taxing form of training that you’ll go through.

But this type of training is what prepares you for those shitty moments in a fight when you’re caught in a bad position on the ground against a guy who’s got a strong and heavy base and the only way you’ll escape is by continually grinding your way out.

It’s at this moment in a match that many fighters lose - if they do happen to get out, their arms feel like lead blocks and they’re sucking wind.

But because you’re following this program, this isn’t going to happen to you.

To train the lactic system, you need to work the muscles at a high-intensity anywhere from 30 sec to 2 mins.

Because MMA is an acyclic sport and you generally don’t perform any movement repetitively for over a minute, you’ll be sticking to 30 sec to 60 sec of work.

Another key is that the lactic system must be trained on both a local and systemic level.

In Local Lactic Training (LLT), a maximal demand is placed on a particular muscle group for 1 – 2 min, and through the progression scheme outlined, the rate at which the muscle can produce energy through the lactic system increases.

You’re also developing your ability to tolerate the demands of lactic energy production better, helping you push further than you could before.
When performing LLT, the working muscle produces lactate into the blood stream. Clearance of lactate is performed by non-working muscles (they help clear it from the blood and use it for their own energy needs) and the liver (which also changes lactate to energy that is sent back to the muscles).

In the Advanced MMA Power Training Program, you’ll be performing circuits of 3 exercises focused on the Push and Pull movement patterns for the upper body, and supersets for the Quads and Posterior Chain muscle groups for the lower body.

The upper body circuits consist of an isolation exercise for the major muscle group contributing to that movement (eg. the pecs for the push movement pattern), followed by a compound movement (eg. Dumbbell press), then finally, you finish with an isolation movement for the minor muscle group in that movement (eg. the triceps for the push).

Local lactic training is much more important for the upper body, as the lower body doesn’t get into the lactic energy system as much during a fight, which is why your upper body circuits are more demanding.

Rest times will decrease as you progress from workout to workout, so be sure you pay close attention to the rest times outlined in the training guide.

Systemic Lactic Training (SLT) specifically targets the liver. The liver helps clear lactate from the blood, and turns it back into energy that you can use via some complicated chemical voodoo that you don’t need to understand.

SLT involves tapping into the lactic system in all the muscles in the body, which results in a boat load of lactate flowing in your blood stream.

Full body circuits involving big compound exercises are just what the doctor ordered for developing your liver’s ability to clear lactate from the blood and send much needed energy back into the blood stream for the muscles to use.
Since all of the muscles are already producing lactate, they can't help clear it from the blood, leaving the liver to be the lone soldier to get the job done. As with all of our systems, it will adapt by increasing its rate of clearing lactate and processing it into energy.

It's the SLT that is the most brutal style of training in this program. You'll be glad to know that you only have to perform a few workouts to get the desired effects.

When you get there - enjoy. (Note sarcasm)

You'll be performing circuits of 5-7 exercises during the Systemic Lactic Training phase. Now you may find it difficult to perform all of these exercises in a row from an equipment standpoint, but we'll discuss later how you can go about alleviating this problem.

For both LLT and SLT, I like to use a 103 tempo (1 second to lower, no pause, 3 seconds to raise). This might be something you've never done before, but it's effective for this type of training because it won't leave you too sore or hammer your central nervous system, but will still generate significant amounts of lactate.

Classic 202 or 401 tempos using 8-12 reps as outlined in the lactic training workouts might leave you a bit too sore and will interfere with your MMA skills training.

When aiming for 12 reps in a set, the weight you choose should be one where you can bang out about 14 reps in good form. This will also prevent excessive soreness, as well as central nervous system fatigue, giving you the effect you want (increased lactic threshold and tolerance) without the effects you don't want: excessive muscular soreness and overtraining.
Anaerobic Alactic Training

If you’ve ever dreamed of a one-punch (or kick) KO, then you need to work your anaerobic alactic energy system properly.

The alactic system gives you about 10-15 seconds of energy. No oxygen is required for its function or recovery. Recovery simply takes time for your body to go through the chemical processes needed to replenish Creatine Phosphate (CP) in the muscle.

CP is a chemical stored in muscle that your body breaks down to use for energy. **Your body can break CP down very quickly, but your muscles only have enough CP for about 10, maybe 15 seconds of maximal work.**

So to target the alactic system you work for up to 15 seconds and no more. This either has to be with a high load (max strength training) or a combination of a lighter load (30-60% 1RM) and high velocity, such as medicine ball throws.

For pure power development, **you must take complete recovery between sets,** which would correspond to a small work : LARGE REST ratio. So you’d do about 15 seconds of work, then rest for at least 1.5-2 minutes.

Not only for the working muscle to replenish the CP so that every rep of every set is performed at maximum intensity, but also because the neuromuscular system needs to recover to be able to properly co-ordinate all of the different muscles (intermuscular) and individual motor neurons (intramuscular) within each muscle for maximal power.

Many fighters try to train for power and endurance at the same time, all the time, which results in no improvements in either, beyond a certain, medium level of adaptation.
So remember that the only way to train for pure power is to have complete rest of the alactic system and neuromuscular system so that each rep can challenge the limits of each system, thus forcing the system to adapt.

You can train the recovery capabilities of the system by decreasing the rest time between sets progressively, which is done as you get closer to your fight.

Training can also be done on a local and systemic level. Locally you work on the muscle fibres themselves, while systemically, you perform circuits, which taxes your neuromuscular system’s ability to maintain a high power output under high demand for an extended time period. I call these circuits NRG System complexes.
Interval Training

Interval training is a much more complex topic than it may seem at first glance. Most people think of interval training as simply going hard, then going easy.

As discussed earlier, changing the length of the work interval, the rest interval, and ratio between work:rest will produce different results, so the work:rest ratio must be chosen based on your desired outcome for the specific phase of training.

When doing intervals, you can choose to perform either a high velocity or a high resistance. Velocity and resistance are inversely related, which means as one goes up, the other most go down, and vice versa, as seen in the graph below:

![Graph showing the relationship between velocity and resistance.]

High Velocity Intervals

If you’re performing High Velocity Intervals (HVI, please don’t confuse with HIV) on a cardio machine like a bike, your resistance will be relatively low, while your RPM will be relatively high, probably over 100 RPM.

You can perform a variant of HVI with traditional weight lifting exercises. To do so, you’d be working anywhere at below 30% of 1RM at as fast a tempo as possible. This type of training can be considered interval training because the load on the eccentric
portion of the movement is minimal, since with such a light load, you can briefly relax
the muscles, then catch the weight again at the bottom of the movement.

Because the slow twitch muscle fibers contract at a slow velocity, they aren’t worked
during this type of interval, so the focus of HVI is on developing the fast twitch muscle
fibers.

To develop aerobic power using HVI, you’d train with shorter work intervals and
complete rest intervals. Aerobic endurance training requires longer work intervals and
shorter rest periods.

From personal experience with my own training and that of my athletes, HVIT also
maximizes heart and respiratory rates, getting you used to the feeling of sucking wind
and your heart beating out of your chest.

**High Resistance Intervals**

I first learned of High Resistance Intervals (HRI) from MMA strength and conditioning
coach Joel Jamieson. Joel is a brilliant coach who has trained some of the top fighters in
the game, such as Rich Franklin and Spencer Fisher.

To perform HRI on a cardio machine, you increase the resistance (on a bike) or incline
(treadmill) and still work as fast as possible. Because of the high resistance, your speed
should be less than 30 RPM, which won’t come close to that of HVI.

HRI cannot be performed readily with standard weight lifting exercises, since the level of
resistance needed to slow the velocity down will force you to work eccentrically when
lowering the weight, removing the relaxation phase of the movement and consequent
aerobic development.

Now because you’re training at a slower velocity, you’re working the slow and all of the
fast twitch muscle fibres.

Training using HRI for aerobic power or endurance uses the same work:rest ratios as for
HVI.
Explosive Strength Training

Because you’ve met the initial strength qualifications, you don’t need to focus on building your pure maximal strength anymore. Doing so would be a poor use of training time and the methods required to further develop your maximal strength, the greater your risk of injury.

Instead, you can focus on maintaining your current level of maximal strength, while developing your explosive strength.

You may have heard of the Complex method of training, also referred to as Contrast method.

I first learned the specifics of this method from a Russian sports scientist named Dr. Yuri Verkhoshansky in his book, “Special Strength Training.”

In his book, he outlines that to use the Complex method, you perform a heavy exercise (90-95% of 1RM) for 2-3 reps for 2 sets, then perform an exercise involving the same muscle groups and similar motor pattern with a much lighter weight for 3 sets of 6-8 reps.

From this original method, I feel I’ve improved it slightly.

Instead of performing the 2 sets of the heavy exercise, you perform one set of the heavy exercise, rest 1-2 minutes, then perform the lighter exercise. Rest 2-4 minutes after the lighter exercise, then repeat for a total of 2 – 3 sets.

The lighter set will feel significantly lighter because of the heightened neural drive elicited by the heavy set, while still resting the Alactic system so that every rep can be at full intensity.

I feel performing 2 consecutive sets in a row of the heavy exercise will cause too much fatigue, not allowing the lighter sets to be worked at full velocity.
But 1 – 2 minutes off in between sets will provide you with rest, while allowing you to feel the ‘lightness’ of the subsequent exercise and perform it at maximal (or supra-maximal) velocity.

When you’re doing your Explosive Strength workouts, you must go at full intensity. Studies have shown that preparing yourself mentally through visualization will increase your strength and power for your upcoming set.

So instead of staring at the girls on the cardio machines or trying to remember what’s on your To Do list, think about your upcoming set and how powerful and explosive it’s going to be, and picture yourself actually going through the set in your mind’s eye.
3D Training

Training in 3D doesn’t involve wearing blue and red glasses and going to the local theatre. Training in 3D is what we need to do to make sure our bodies are fully integrated and work efficiently during complex situations.

Most of the things you do in MMA occur in 3 dimensions at once. Think about it – you don’t punch with 2 fists, kick with 2 feet, or try to slam someone straight over your head like a full suplex. But then again, even the suplex requires some level of 3D power and stability, so even if you’re more into WWE than UFC, you’ve got to train in 3D.

But then look at most of the popular strength training exercises that fighters do: squats, deadlifts, chinups, bench press, pushups, etc. All of these exercises require strength and stability in predominantly 1-dimension.

There are 3 terms that you’ve got to know to fully understand this topic: sagittal, frontal, and transverse (rotational). These terms describe the 3 planes of human movement.
Exercises such as squats, deadlifts, bench press, etc. generally only work you in the sagittal plane.

Here are 3 basic movements you can do right now as you sit and read to learn this easier:

1) Move your arms straight out to the sides. This is movement in the **frontal plane**. Exercises that use this plane would be side bridges and side bends, and side raises (theme?).

2) Push your arms forward and pull them back like a pushup. This is movement in the **sagittal plane**. The exercises listed previously like squats and bench work predominantly in this plane.

3) Lift your arms up in front of you like you’re holding a big wooden spoon and move them like you’re stirring a big pot of soup. This is movement in the **transverse plane**. Exercises like woodchops work this plane of motion.

The thing with the body is that it adapts very specifically to the stimulus it’s presented. So if you’re only training in 1-dimension, you’re only going to be able to develop strength and power in that dimension.
This is because the body is not just the muscles, but also how your brain and nervous system recruit the muscles, what percentage of motor units you can recruit, and how efficiently you can recruit the different muscle groups to perform the functions needed for any various move.

If this all sounds a bit confusing, let's break it down with a simple example that you can understand (I hope).

When you throw the right cross (if you’re a southpaw, reverse the example), you start the movement from your right foot with a pivot on the ball of your foot, then you get the right glute involved to give you the rotation at the hips, at which point your core must be stable in the transverse plane to transfer the power to your right shoulder, which allows you to ‘throw’ the fist out as opposed to muscling and pushing the punch forward.

Now, on the other side of your body, it goes like this. Your left foot, knee, and hip must stay relatively stable so that you don't over rotate and throw yourself off balance. To really get some oomph into the punch, you can pull your left shoulder back as fast as you throw the right shoulder out.

This is clearly a very 3-dimensional move involving all 3 planes of motion. You’ve got to be stabilizing yourself, rotating yourself, and pushing forward.

Incorporating 3D exercises will improve your strength in more complicated neuromuscular patterns, which will then convert to increased speed, power, and explosiveness in your MMA techniques.

**NOTE** - what I’m advocating is an inclusion of 3D strength training exercises into the program, but not a program based purely on these exercises.

If you only use 3D exercises, you limit your ability to develop maximal strength, since your stabilizer muscles will often be the limiting factor.

So please understand that you haven't seen the last of squats, deadlifts, and barbell bench presses!
It’s funny because the same mentality occurs with circuit training – because circuit training more closely resembles an MMA round than a typical strength training workout, fighters often think that circuits are all that’s needed.

But only performing circuits will limit your development because once you reach a certain level, circuits won’t give you the necessary stimulus to improve any more.

To keep improving, you’ve got to focus on each aspect to give it the proper overload and to give your body the time to make the desired adaptation.
NRG System Training

NRG System Training is a specific system that I first developed in 2006 and have been refining and tweaking ever since.

NRG System Complexes combine the following elements:

- Explosiveness in the major movement patterns (if you don’t know what these are, you’ve got to read my Ultimate MMA Strength and Conditioning Program)
- Alactic power and endurance
- Lactic capacity and recovery
- Quickness
- Core stability
- Mental toughness
- Progression from workout to workout

These complexes simulate the worst possible scenario that you could encounter in your fight, making the fight seem easy in comparison (from a physical exertion perspective).

Now many 5 minute circuits say they do this, but many are based on the timed station model - spend 30 seconds on one exercise, then move on to the next until you’re done all exercises in 5 minutes.

The problem is that 30 seconds on one exercise gets you into the Lactic energy system - which is OK - but if you want the ability to be explosive for a 5 minute round, you’ve got to tap into and train the Alactic system.

The way the NRG System Complexes are organized allows you to train all 3 energy systems at once, whereas the traditional timed station circuits focus more on the lactic and aerobic energy systems.

This is because the # of reps you perform keep you within the Alactic system, and the exercise choices and order allow the Alactic system to slightly recover on a local level.
For example, in my classic NRG System Bodyweight Complex, you superset between 8 Lunge jumps and 8 Explosive pushups. 8 reps of either take less than 10 seconds of work - so the alactic system is predominant.

While you’re doing the pushups, the legs are resting, and vice versa, so the alactic system has a bit of time to recover.

You’d then perform the Lunge jumps again and the Pushups again, completing 2 sets of each before moving on to the next exercise. Doing 2 sets allows you to challenge alactic endurance, without totally fatiguing the system.

You might then move on to a core stability exercise giving the upper and lower body muscles a chance to recover, while you’re still working and doing an exercise specific to MMA.

This goes on for about 5 minutes, so as you proceed through the complex, the lactic and aerobic energy systems are engaged more, giving you complete energy system development, never-ending cardio AND explosive knockout power that will last you to the final bell – if you don’t KO your opponent first!

In the Training Guide, I’ve included 4 NRG System Complexes for you to follow. There are so many variations you could use, but you need to follow a template to make sure the workout is based on sound principles.
So here’s one of my top-secret NRG System Complex templates for you to use to put your own exercises into.

1. **Quickness exercise x 30 sec eg.** Shuffle splits
2. **Core stability exercise (10 – 15 sec set) eg.** Hand walkouts - 3 x 3 sec
3. **Explosive lower body exercise (10 – 15 sec set) eg.** Lunge jumps - 8
4. **Quickness exercise x 20 sec eg.** High knee running
5. **Explosive upper body exercise (10 – 15 sec set) eg.** Explosive pushups - 8
6. **Explosive lower body exercise (10 – 15 sec set) eg.** 1-leg jumps - 4 per
7. **Quickness exercise x 20 sec eg.** Mountain climbers
8. **Explosive lower body exercise (10 – 15 sec set) eg.** Squat jumps - 8
9. **Core stability exercise (10 – 15 sec set) eg.** Sprint & sprawls - 4

10. **Quickness exercise x 20 sec eg.** Side-to-side hops
11. **Core stability exercise (longer set to finish) eg.** 1-arm planks - 2 x 10 s

Note that everything in bold is performed for only 1 set, while everything in italics is performed for 2 sets. Here’s how it works:

1. Do #1 for one set
2. Do #2 for one set, then go directly to #3 for one set
3. Do #2 for a 2nd set, then go to #3 for a 2nd set
4. Do #4 for one set
5. Do #5 for one set, then go directly to #6 for one set
6. Do #5 for a 2nd set, then go to #6 for a 2nd set

I’ve done my best to clarify it for you, but if you still don’t get it, just watch the videos then it will all be clear.

I know it’s not as simple as doing 30 sec of one exercise then moving on, but that’s why it’s so much more effective and why it will give you the edge over your opponent – they probably don’t have the wits to follow it.
PART 3

PUTTING IT ALL TOGETHER
Program Organization and Periodization

So you’ve just discovered that in order to develop what I call Advanced MMA Power, you have to integrate the following components into your program:

- Injury prevention:
  - Improvement of tissue quality with Self-Myofascial Release
  - Maintenance and improvement of Joint Mobility
  - Correction and prevention of Muscular Imbalances
  - Improvement in Dynamic Mobility
  - Maintenance of base levels of Core Stability
  - Minimization of concussion frequency and severity through Dynamic-Static Neck Training

- Development of maximal explosive strength using the Modified Complex Method

- Training of your aerobic energy system via:
  - The heart’s ability to deliver blood to working muscles via increased stroke volume and left ventricular diameter
  - Growth of Type I muscle fibres
  - Increase in the oxidative capabilities of Type II muscle fibres

- Training of your anaerobic lactic energy system via:
  - Improved lactate threshold and clearance ability of each muscle group through Local Lactic Training
  - Improvement in your liver’s ability to process lactate into energy through Systemic Lactic Training

- Training of your anaerobic alactic energy system:
  - Local Alactic Training
  - NRG System complexes

- Proper tapering of strength training when approaching a fight

PHEW! That’s a lot of shit to put together. Luckily for you, I won’t add to the beating that your head already gets, as I’ve done all the work for you and implemented every single component that I’ve outlined here into a 12-week program.

So let me take a minute to give you a brief overview of how the program is organized. I’ll explain more in the Advanced MMA Power Training Program Manual, but I want to give you a rough idea here.
General Overview of Each Training Phase

First of all, all injury prevention stuff must be done all the time, no matter what phase of training you’re in. The best place to do these exercises is in your warmup.

I’ve outlined a couple of different warmup routines for you to use – simply cycle between the two every time you workout and make sure you focus on good form for everything.

Once you learn everything, the warm-ups won’t take you more than 10 minutes to complete. But at first it might take you a bit longer when you’re learning the moves properly.

Next, you move on to the weight training phase.

After weight training, if it’s prescribed in the phase, you can perform your steady-state aerobic training. Or you can it at a separate time or on a different day, it’s up to you.

“So it’s 12 weeks away from my fight. How do I get everything I just learned about in, in the right order, so that I peak and am a monster by the fight?”

Phase 1 – Maximal Explosive Strength / Steady-State Aerobic Training

Since you already have the base levels of strength, the first component to work on is your maximal explosive strength, using the modified complex method (MCM).

You want to start your training with the maximal explosive strength phase for 3 reasons:

1. You hold on to maximal strength longer than you do endurance, meaning you can keep what you have over the next 8 weeks leading to the fight, whereas endurance decreases quicker and therefore requires more upkeep (and is more important in a fight than maximal strength)
2. You don’t want to use this method too close to a fight because it is heavy on the joints, which will already be taking a beating due to the high intensity and volume of your MMA sparring.

3. This method is also very draining on the central nervous system, which will already be hurting from the high level of sparring.

You may be thinking, “Steady-state aerobic training will make me weak and slow!” This is not the truth at all. It is if you over do it and put too much time into it, but as I have outlined with 2 sessions per week, there’s no way this will detract from your maximal strength.

Plus, you can perform any type of cyclical activity you want, as long as you keep your heart rate within the 140 – 150 bpm range. So you can run, bike, swim, skip, box, grapple – anything that keeps your heart rate between 140 – 150 bpm that doesn’t involve lifting significant amounts of weight.

This will increase the volume of your heart, so when you move to high-intensity training and your heart increases its ability to pump blood out – it can pump a LOT of blood out with each beat, giving your muscles lots of oxygen helping you sustain a higher power output throughout your fight and recover faster.

**Phase 2 & 3 – Med Ball Training / Lactic Training / Interval Training**

Next up we have anaerobic lactic training.

We start with local lactic training simply because it’s not as vicious as systemic lactic training, allowing your body to gradually get used to dealing with high levels of lactate.

Development of your ability to tolerate and clear lactate locally will help you when you get in those shitty situations where you get caught on the bottom and have to grind your way out, or fight for a takedown against a solid wrestler.

Developing tolerance and clearance ability to lactate systemically will help in those situations where the fight is at a high pace through many different situations such as
striking, takedown attempts, takedown defence, grappling, going up and down repeatedly, etc.

A couple of weeks of LLT, a couple of weeks of SLT, and you’re ready to move on.

These methods will be progressed by increasing the volume of work and decreasing the amount of rest between sets, thus improving your body’s ability to clear lactate from the blood stream.

Concurrent with lactic training is interval training. You’ll start with High Velocity Intervals, perform those for 2 weeks, take a week off, then move to High Resistance Intervals.

The reasoning behind this is that when you’re doing LLT, the legs really get hit hard and might be a little sore, even though I’ve implemented a unique tempo prescription to combat soreness as much as possible, and HVIs are much easier on the legs than HRIs.

After this phase of training is complete, your Lactate Threshold and strength endurance will be elevated to their peak.

Medicine ball exercises for power are also included here. You’ll be doing these exercises either before your strength workout, or on a separate day.

They will not feel taxing at all, which is what you want, since you’re developing all of the neuromuscular qualities and alactic power – which requires sets of less than 15 seconds work and complete rest between sets.

The exercises chosen here are all based in the transverse plane of motion, which is necessary to peak your striking power and is not often trained with traditional strength training exercises (although some of the 3D exercises in this program do train this plane of motion).

**Phase 4 – NRG System Training / Power Curve Training**

The fight is coming up, and you need to finalize the development of your energy systems through NRG System training, and be very careful not to overtrain.
In this phase, workouts will be a lot shorter, usually 30 minutes or less. You’ll be doing a lot of sparring and MMA specific training here, so you’ll appreciate the shorter workouts (so will your body).

But that’s not to say that we can’t get effective workouts in, in fact, after the base you’ve developed over the past 8 weeks of training, the short but intense workouts in this phase will take your strength, conditioning, and most importantly power, to the max.

While the focus is on NRG System training, you still need to maintain the strength you’ve already developed, otherwise you might feel less confident in yourself going into the fight, which will hurt your ability to perform.

So that’s why in combination with the NRG System Complexes, you’ll be performing a tapering workout that I call the Power Curve method.

The Power Curve method maintains your strength without draining your body, irritating your joints, or wasting your time.

Now, you could do a standard heavy lifting routine, trying to lift 3-4 reps, with as heavy a weight as possible, but the problem is that heavy lifting at this point in your camp with all your sparring and MMA training will put too much strain on your joints and could cause an injury from overuse.

I call it the Power Curve method because it relates to the Force-Velocity curve seen to the right.

I also call it the Power Curve method because it sounds cool.
Anyway, as you learned earlier:

\[
\text{Power} = \text{Force} \times \text{Velocity}
\]

The highest power output happens somewhere in the middle because if you’re at max velocity, you can’t lift too heavy, but if you’re at max force (1RM), you can’t move the weight too fast.

So peak power can occur anywhere from 30-80% of your 1RM, depending on the exercise and the individual.

For ballistic exercises where you can throw the weight (eg. medicine ball throws), the weight needed for peak power is near the lower end – 30% 1RM.

For exercises with barbells like the Bench press, the weight needed for peak power is near the higher end – 80% 1RM.

In this routine, we’ll be using the Bench press and Deadlift to maintain strength and power, as well as a couple of challenging core exercises to maintain optimal core stability.

The Power Curve method is perfect for minimizing the risk of joint injury as well as developing peak power because you’re using less than maximal weight (80% 1RM at most), and you’re not going near failure as you’re only to do 3 reps.

This keeps you well within a safe training zone, allowing you to keep all of your focus and energy on training, not pain and injury management.

You’ll also start each Power Curve workout by working on your starting power, which is your ability to generate high levels of power from a dead start.

You’ll be using pushups and a bench squat jump to develop your starting power. The key to these exercises is to go from a state of relaxation to maximal output in as short a time as possible – so you must be keyed up and ready to give 100% intensity to these exercises, even though they’ll feel easy.
Conclusion

This signals the end of the Advanced MMA Power Master Manual - I’m guessing your brain needs a bit of a rest now.

Understanding all of the info in this manual isn’t required to develop your strength, conditioning, and power as a mixed-martial artist.

But understanding everything here will help you realize the importance of following a program precisely as opposed to throwing a bunch of exercises together at random and working really hard and expecting elite results. Basically, by following this program, you’ll be training smarter.

Put the intensity in that you already have, and you’ll get amazing results.

Now that you have the knowledge of how and why everything that is included in the training program is there, you’ll be much more motivated to stick with the program and your performance will be that much higher because of it.

So take a breather, then proceed to the Advanced MMA Power Training Program and put the workouts into your schedule, and in 12-weeks, be amazed at the changes in your performance and enjoy the feeling of total confidence in your conditioning and explosive knockout power to the end.

I’ve done my best to put together these advanced training methods together into a program that’s easy to follow, which is in the Training Guide.

I don’t want to give you a bunch of theory then leave you to figure out how to make it work by yourself.

But in the event that you don’t fully understand something, please contact me at mma@ericwong.ca with your question and I’ll do my best to answer you.

If you don’t have any questions, I’d love to hear about your results with the program, so make sure you drop me a line after you’ve worked through it.
Glossary

I know there are a lot of terms that may sound like Chinese in this book (sometimes it slips, I can't help it), so here's a handy-dandy glossary for you to refer to. Everything here is from my own head, so hopefully you can understand it better than those stuffy dictionary definitions.

**Aerobic** - energy system which doesn’t fatigue and helps replenish the other energy systems

**Anaerobic Lactic** - energy system which generates lactate as a by-product; you know you're working this system when your muscles are burning

**Anaerobic Alactic** - energy system which uses ATP and Creatine-Phosphate to provide your muscles with fuel; gives you lots of energy quick but only lasts for 10-15 seconds

**Concentric Muscular Contraction** - any movement where your muscle is shortening as it is contracting

**(Dynamic) Mobility** - your ability to enter and exit a range of motion

**Eccentric Muscular Contraction** - any movement where your muscle is lengthening as it is contracting

**Endurance** - your ability to keep going

**Flexibility** - the ability of your body to reach a certain range of motion (not necessarily enter or exit it)

**Intermuscular coordination** - how well you can get multiple muscles to work together to produce a movement

**Intramuscular coordination** - how well you can fire up a single muscle to work

**Isometric Muscular Contraction** - muscular contraction without movement

**Lactate Threshold** - the point where your body starts accumulating more lactate than it is breaking down; fatigue occurs soon if you’re working over this threshold

**Muscle Activation** - performing an exercise or conscious contraction of a certain muscle group to wake it up so it works when it’s supposed to

**Power** - the result of force (weight) x velocity (speed)

**Self-Myofascial Release (SMR)** - the use of various tools such as a foam roller to perform massage on yourself and help improve tissue quality

**Starting Power** - your ability to generate lots of force from a dead stop
References

Books Referenced


Verkhoshansky, Y.V. *Programming and Organization of Training*. Sportivny, Michigan.


Journal Articles


