

SECTION 6

HIGH VELOCITY PEAKING
(BELOW 55 PERCENT)

6.1: TRANSFER OF TRAINING AND DYNAMIC CORRESPONDENCE

The previous blocks are devised to give an athlete a solid foundation of potential athletic ability, strengthening their muscles and tendons to absorb large amounts of force and teaching their nervous system to fire efficiently, violently, to ensure that the energy is unleashed in a controlled, advantageous manner. But understand that I said it only gives an athlete *potential* ability, not direct athletic ability. For athletic potential to transfer to the field, an athlete must learn to harness his new found power and learn to use it quickly, explosively, with a high rate of acceleration and velocity.

Forces that athletes encounter on the field are ten times what they normally experience in the weight room. This isn't due to excessive loads but rather the high accelerations and decelerations that take place to jump, sprint, cut, and throw. This last block—below 55 percent or high velocity peaking—is designed to maximize the transferability of the athletic abilities (speed, strength, and power) that the athlete has gained through his hard work over the past two mesocycles.

The transfer of training gains isn't by any means an easy thing. It has been the quest of many coaches, athletes, and scientists alike to try and find methods that allow the acquisition of a skill in one exercise to transfer positively to another. For example, performing exercise A results in improvements in exercise B. Furthermore, this isn't a situation where you can just throw a lot of stuff at a wall and see what sticks, trying dozens of exercises and variations to improve performance. The transfer can just as likely be negative as it can be positive. In this instance, performing exercise A would result in decreased performance in exercise B.

According to Dr. Anatoly Bondarchuk, there are actually three types of training transfer—positive, negative, and neutral.³⁹ In his extensive writings on the subject, which you can read in

³⁹ Bondarchuk A (2007) *Transfer of Training in Sports*. Ultimate Athlete Concepts.

his book *Transfer of Training in Sports*, Dr. Bondarchuk concludes that to maximize the transfer of training gains to performance enhancement, the athlete must do two things:

- 1) Choose specialized developmental exercises that are closely related to the movement patterns and neural firing rates the athlete will find in competition.
- 2) Perform these exercises at velocities that are slightly slower (light loads) or slightly faster (assisted loads) than those found in competition.⁴⁰

If a progression of these types of exercises isn't used leading up to competition, Dr. Bondarchuk noted that there was little to no transfer observed.⁴¹ It was also noted that excluding specialized developmental exercises during the last mesocycle block led to a loss in the previously achieved physical abilities of the athletes during competition. Not only is it essential to properly peak your athletes to maximize performance, but if the wrong methods are used (or worse, nothing is used at all), their performance will decrease.

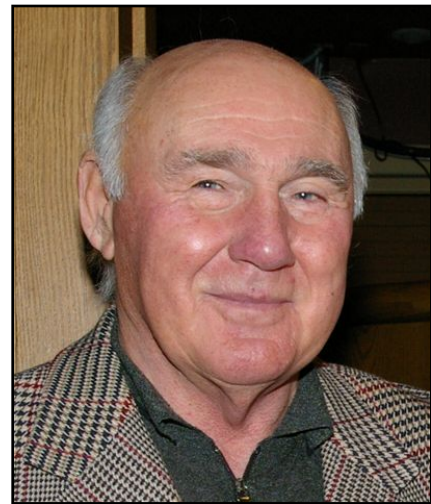


Image 6.1 - Dr. Bondarchuk

Below is a table from Dr. Bondarchuk's book that helps explain his findings. Figure 6.1 displays the transferability of multiple exercises to throwing the shot. He performed extensive statistical analysis, calculating the correlation coefficients of dozens of exercises from hundreds of elite Russian national team athletes to their respective sports. Very simply, he tried to figure out what exercises made his athletes better and which exercises transferred the best from weight room to field. The column on the far left lists the exercises performed by the athletes. The top row is an athlete classification system. Instead of classifying them by group (world class, elite, or amateur), the athletes were grouped by their performance level, taking their best throw or time to put them in a group. For example, a lower end thrower who had a personal record (PR) throw of 14.25 meters would be placed in the first column to the right of the exercise column. A world

⁴⁰ Bondarchuk A (2007) *Transfer of Training in Sports*. Ultimate Athlete Concepts.

⁴¹ Image 6.1: Used with permission from Dr. Anatoly Bondarchuk.

class thrower with a PR throw of 20.1 meters would be placed in the far right column. The other numbers in the table are a statistic known as the correlation coefficient (r). In statistics, r is a measure of the relationship between two variables, X and Y. In this case, it is the relationship between a given parameter (exercise) and the resulting performance measure (throwing distance). All values for r are always between -1.0 and +1.0. Numbers closer to +1.0 have a high correlation and thus high transferability to performance. Numbers close to zero don't have any correlation and would be considered to have no transfer; they are neutral. Negative numbers have a negative correlation and a detrimental (decrease) effect on performance.

Exercise	Sports Result, Coefficient of Correlation						
	14-15m	15-16m	16-17m	17-18m	18-19m	19-20m	20-21m
Throwing a 5kg shot	0.768	0.702	0.724	0.564	0.512	0.456	0.365
Throwing a 6kg shot	0.872	0.765	0.689	0.654	0.607	0.582	0.498
Throwing a 8kg shot	0.654	0.669	0.754	0.788	0.845	0.824	0.754
Throwing a 9kg shot	---	---	0.706	0.806	0.765	0.824	0.724
Throwing a 10kg shot	---	---	0.552	0.605	0.786	0.765	0.714
Throwing a 6kg shot from place	0.882	0.786	0.765	0.806	0.776	0.721	0.687
Throwing a 8kg shot from place	0.712	0.687	0.722	0.742	0.825	0.786	0.670
Barbell snatch	0.410	-0.387	0.406	-0.354	0.276	0.211	0.197
Power clean	-0.366	0.324	-0.287	-0.212	0.226	0.268	0.107
Squat with a barbell	0.521	0.605	0.724	0.807	0.657	0.398	0.165
Bench Press	0.574	0.665	0.642	0.786	0.602	0.605	0.126
Standing long jump	0.398	0.344	-0.324	0.245	0.221	0.156	0.127
Triple jump from place	0.345	0.367	0.325	0.214	0.242	-0.198	0.222
Vertical jump	0.566	0.488	0.376	0.324	0.256	0.224	0.178
Throwing a shot forward	-0.367	0.321	0.298	0.246	-0.200	0.242	0.192
Throwing a shot backward	-0.387	0.345	-0.309	0.288	0.244	-0.187	0.156
Running 30m from blocks	0.426	0.367	0.312	0.242	0.212	-0.178	0.198

Figure 6.1: Table showing the results of Dr. Bondarchuk's experiments on the transferability of exercise parameters and performance, looking specifically at throwing distance in shot putters. Relationships shown by statistical analysis of correlation coefficients (r). Table reproduced from *Transfer of Training* with permission from *Ultimate Athlete Concepts*.

When examining figure 6.1, two things pop out. First, as the exercise becomes more similar (specialized) to the competitive movement, the transferability of that exercise increases. In

looking at figure 6.1, you see that the highest transferability (correlation) was seen with athletes throwing different weighted shots, both heavier and lighter than competition weight. The next highest transfer exercise is the bench press, which again is a similar motor and neural firing pattern to throwing a shot.

The second thing to note is the change of transferability from left to right seen in the table. Notice that the correlation coefficient (transfer) for a given exercise isn't the same for every level of athlete. In almost every instance, as the level of athlete improves, the transferability of an exercise decreases. Let's look again at the bench press in figure 6.1. The first four athlete classifications, up to 17–18 meters, see large improvements (transfer) in their throws as a result of increasing their bench press (r increasing from 0.57 to 0.78). However, as you continue to move across the line, getting to the 20–21 meter group, their transfer plummets to only 0.126. Why?

There comes a point when the level of athlete quite literally out grows the transferability of an exercise. There is a tipping point where being stronger will no longer help an athlete perform at a higher level. This is due to the time constraints imposed on the athlete by his event or sport. To be able to lift a heavier weight doesn't do him any good because he doesn't have time to transfer that strength into the implement (shot, field).

Let's look at another example. Figure 6.2 outlines the PR loads and distances of 1984 Olympic hammer throw champion, U. Sedykh (yes, he's Russian). Looking at his power clean, squat, and snatch numbers from 1980 to 1984, you should notice something you might think odd. They never increased! Alright, so his snatch went up five kilograms in four years, but other than that, his strength numbers remained exactly the same. Now look at the distances of his 7.296-kg hammer throw during the same time. They increased from 81.8 meters to 86.34 meters! For Sedykh, increasing his strength wouldn't have been advantageous. There came a point when to continue to improve he had to focus on more specialized developmental exercises that more closely resembled the parameters of his sport.

Exercise	Years						
	1980	1981	1982	1983	1984	1985	1986
Throwing the 7.260kg hammer, m	81.80	80.14	81.66	80.94	86.34	80.50	86.74
Throwing the 5kg hammer, m	97.00	95.00	96.00	95.00	99.00	96.00	100
Throwing the 6kg hammer, m	96.00	90.00	93.00	91.00	95.00	90.00	96.00
Throwing the 8kg hammer, m	77.50	74.00	76.00	75.00	80.00	75.50	80.46
Throwing the 9kg hammer, m	72.00	70.00	72.00	71.50	75.00	71.00	75.50
Throwing the 10kg hammer, m	67.00	64.00	67.50	66.50	69.50	65.50	70.2
Throwing the 16kg weight, m	23.70	---	---	---	23.40	---	23.85
Barbell snatch, kg	115	115	110	115	120	120	120
Power clean, kg	155	155	155	155	155	155	155
Squat with a barbell, kg	230	230	230	230	230	230	230
Throwing the shot forward, m	16.00	15.50	16.00	---	---	---	16.00
Throwing the shot backward, m	18.00	18.00	17.50	18.00	---	---	18.00
Long jump from place, m	3.10	3.10	3.10	3.10	3.10	3.15	3.15
Triple jump from place, m	9.00	9.00	9.00	9.00	---	---	---
Vertical Jump, cm	85	85	80	80	80	85	---

Figure 6.2: Table showing the personal records of Olympic champion U. Sedykh in both throwing implement and major assistance lifts by training year from 1980 until 1986. Table reproduced from *Transfer of Training* with permission from *Ultimate Athlete Concepts*.

Now, I'm not saying that you abandon heavy lifting with your athletes and constantly perform specialized developmental exercises. That won't work. An athlete must be at the highest levels physically and mentally before these methods will produce optimal gains. By 1980, Sedykh had already built an impressive strength base, squatting 230 kg. That's a 506-lb squat. The impressive performance gains made by Sedykh and other elite athletes using high velocity peaking methods were obtained after years of proper periodized training building strength and power. If an athlete isn't already strong and powerful, there isn't anything to transfer to competition. Also, keep in mind that Sedykh and other athletes like him don't stop lifting heavy during this time. They continue to lift loads above 80 percent during their yearly macrocycle. However, when lifting during a strength focused mesocycle (such as the high force at low velocity phase), their focus is simply to maintain the parameter rather than increase it. When only looking to maintain a parameter, less time needs to be allocated in training for its maintenance. Instead of spending six to nine weeks training with loads above 80 percent, these athletes only need to spend three to four weeks to maintain their strength levels. As a result, more training time could be allocated for

lightened load, high velocity training. This means there's more time training with the methods and parameters that we know improve sport performance!

What you need to take away from these examples is the importance of peaking your athletes with a method that allows for a high level of transferability, preparing them and their bodies for the rigors specific to their sport. In most instances, training occurs at velocities that are considerably lower than the actual competition. For example, a college level thrower releases the shot put with a velocity around 14 meters per second. Conversely, most dynamic effort bench speeds (assuming 50 percent of a 1RM on the bar) only reach 0.9–1.1 meters per second.

To determine the validity of the transferability of an exercise, researchers have developed a set of criteria. These have come to be known as the *criteria of dynamic correspondence*.⁴² Determining the transferability of an exercise isn't by any means a science. However, a good coach will always analyze and evaluate the merits of a peaking program based on this criteria.

CRITERIA FOR DYNAMIC CORRESPONDENCE:

- THE AMPLITUDE AND DIRECTION OF MOVEMENT
- THE ACCENTUATED REGION OF FORCE PRODUCTION
- THE DYNAMICS OF THE EFFORT
- THE RATE AND TIME OF MAXIMUM FORCE PRODUCTION
- THE REGIME OF MUSCULAR WORK

The amplitude and direction of movement is a fancy way to saying range of motion (ROM). To meet this criterion, the exercise must exhibit the same general movement pattern and range of motion that an athlete will perform during competition. When selecting or modifying exercises to be performed, it is important to know the starting position, finishing position, and posture of the athlete as well as understand the direction of application with which force is applied during the movement. For example, the degree of knee flexion for a linebacker is different than an offensive lineman at the snap of the ball. A good strength coach who has programmed a back squat into the

⁴² Verkhoshansky Y, Siff M (2009) *Supertraining*. Sixth edition. Ultimate Athlete Concepts.

high velocity peaking program before camp will take note of this difference and adjust the ROM with which each player performs the back squat to increase transferability to the field.

The accentuated region of force production looks at the importance of building joint angle specific strength for the athlete. Similar to amplitude and direction, this criterion looks at the specific point within the range of motion where the athlete must generate the most force. This point is generally within ten degrees of the athlete's starting position or the lower end of his ROM.

The dynamics of the effort simply means that the effort exerted and the speed produced by the athlete during training must be at a level equal to or greater than those seen in competition. A high velocity of movement is essential. Every repetition of the exercise must be performed with 100 percent effort with the athlete pushing or pulling through the entire ROM.

The rate and time of maximum force production is another way of terming a concept that you're familiar with from earlier sections of this book—the rate of force development (RFD). The focus on every exercise must always be a high RFD to improve the neuromuscular system, enabling maximal force to be produced in a minimal amount of time.

The *regime of muscular work* is stating that the type of “work” performed by the athlete's physiologic structures in competition should be simulated in training. For example, boxers and shot putters can perform the same exercises in training because the amplitude and direction of the movement and the dynamics of effort are very similar.⁴³ However, because boxing requires quick, unresisted contractions performed in a repetitive manner with the ability to repeat it many times without a significant decrease in force, its regime of muscular work is unique. It must be different than that of a shot putter, who's sport involves single, explosive muscular contractions against a specific resistance with long durations of rest. To accommodate for these differences, the use of time as a parameter for training has proved to be optimal for peaking an athlete.

⁴³ Verkhoshansky Y, Siff M (2009) *Supertraining*. Ultimate Athlete Concepts.

Transferability and the criteria of dynamic correspondence dictate that as the competitive season nears, velocity of training must increase within a specific ROM to make the nervous system more sport-specific and allow transfer of the previously attained physical adaptations. This mesocycle is designed to do just that. Some of the criteria are very similar and overlap. If an exercise meets one criteria from the list, it likely meets one or two more. I have never found an exercise that perfectly meets all five, so I keep a rule of three. If an exercise doesn't meet at least three of the criteria for dynamic correspondence, I won't program it in my peaking phase. To accomplish the high levels of transferability required for sport performance improvement, a coach must take advantage of an antagonistically facilitated specialized method of training (AFSM).

6.2: AFSM

Before I go any further in explaining the antagonistically facilitated specialized method of training (AFSM) and its application to sport performance, I must take a moment to recognize someone who was paramount in its realization. Kevin Kocos, my assistant at the University of Minnesota, has spent countless hours helping me research, decipher, and apply AFSM methods. His efforts have helped me realize this method and turn it into a system that garners amazing results for peaking athletic performance. This high velocity method could have never been realized without his knowledge, research, and expertise.

AFSM is based on Sherrington's Law of Reciprocal Inhibition, a concept we covered in section four. It states that for every neural activation of a muscle (agonist), there is a corresponding inhibition of the opposing muscle (antagonist). For example, if you want to contract your bicep (agonist), your triceps (antagonist) must relax at the same time. This law and its application to sport was studied at length by Leo Matveyev, one of the Soviet's leading sports scientists and originators of modern periodization training. In his research, he found an underlying theme among the top level athletes within the Soviet Union. Those who achieved Master of Sport (the highest level of sports mastery in the Russian system of classification) had the highest speed of muscle relaxation. The speed of relaxation that they showed was nearly 200 percent faster than novice level athletes! Even those who were classified as level four athletes (right below Master of Sport) still exhibited relaxation times about 50 percent slower than Masters of Sport. Elite athletes not only turn muscles on quickly, but they also relax them quickly.

Because Matveyev's data shows that it is crucial for the nervous system to be able to produce contractions and relaxations at high velocities, we must ask ourselves, "How we can enhance this quality in our athletes?" This is where the system of AFSM comes in. AFSM describes a new method used to perform shock, plyometric, or high velocity strength training movements that are specifically designed to help athletes relax and contract at higher velocities, velocities close to those seen in competition. This point, as seen in the work by Dr. Bondarchuk, is essential to the transfer of gains for the athlete from the weight room to competition.

This method of training is very advanced and requires an athlete to not only be experienced in shock, plyometric, and strength training but also trained to the highest physiologic and neural levels to withstand the stress of this method. Just because the loads are light doesn't mean the intensity has decreased. Quite the opposite. From a neurological standpoint, this phase is just as taxing as either of the previous two phases.

Before I can get into the specifics about how to train AFSM, we need to define what I mean by the terms “plyometric,” “shock,” and “high velocity strength training.” All three of these methods are used to take advantage of three things:

- 1) The body's powerful stretch shortening cycle via the muscle tendon complex
- 2) A highly trained and adaptable central nervous system
- 3) Large levels of explosive force focused through raw power development

If you think back, all three are things that were the focal points and goals of the first training phase (triphasic blocks 1–3) and subsequently improved on and reinforced during the second training phase (50–80 percent, block four). The first two phases can be viewed as the athlete setting himself up well for the peaking phase and competition. Without a solid base of strength, power, and neural coordination, what is there left for an athlete to peak? What solid base does he have to stand on when he enters competition? None. Remember, the SSC is used advantageously in sports when the muscles and tendons, which are arranged in a series, are subjected to a powerful stretch or eccentric contraction, creating a large amount of potential kinetic energy. This stored kinetic energy from the eccentric contraction results in a concentric contraction performed with significantly more force than it could have produced without a “pre-stretch” of the muscle tendon series (as I explained in the triphasic loading method), all of which is amplified by a well trained, efficient nervous system resulting in large levels of power.

Plyometrics is a term that was popularized when the Soviet training system made its way to western countries. Plyometric training will refer to any muscle action that uses a SSC in the muscle to enhance the force output of the concentric contraction. Plyometrics, therefore, could be

anything from low intensity jump roping to highly intense back squats that approximate up to 55 percent of the athlete's one repetition maximum (this will be explained more in depth in the high velocity strength training method below).

Shock training was developed in the 1960s by Soviet sports scientists such as Yuri Verkoshansky. The difference between plyometrics and shock training is that shock training will involve a drop from a depth of twelve inches or greater, thereby causing the forces involved to be significantly higher than plyometric training. Ground contact time during true shock training must be as short as possible, ideally under 0.20 seconds. These intense contractions from shock training occur not only in the weight room but also in cyclic sporting actions such as sprinting where elite level athletes can generate over 800 pounds of force on a single limb while the ground contact time often lasts less than 0.10 seconds.⁴⁴ There are those out there who claim that potential energy from the SSC can be held for several seconds. This is a half truth. While *some* of the potential energy can be stored within the muscle tendon complex for a second or two, it is a very small percentage of the whole. Research has shown that the resulting power from absorbed energy through the SSC begins to dissipate after approximately 0.20 seconds.⁴⁵ Therefore, to simulate competition like conditions and maximize transfer, the method of application must meet the same parameters. This is ideally carried out by using the shock method.

High velocity strength training is a method that takes the principles of plyometric training with external loads that are less than 55 percent of the athlete's one repetition maximum (1RM) in order to maximize the velocity at which the actions are performed. The laws of physics dictate that power is the product of force and velocity. Therefore, it is crucial that you use methods in strength training that employ light resistance with high velocity. When doing so, the athlete is able to produce a high amount of force at a high velocity. Those who use methods with only heavy loads all year long are able to produce a high amount of force but only at very low

⁴⁴ Ball N, Stock C, Scurr J (2010) Bilateral contact ground reaction forces and contact times during plyometric drop jumping. *Journal of Strength & Conditioning Research* 24(10):2762–69.

⁴⁵ Earp JE, Newton RU, Cormie P, Kraemer W J (2011) The influence of muscle-tendon unit structure on rate of force development, during the squat, countermovement, and depth drop jumps. *Journal of Strength & Conditioning Research* 25(5).

velocities. If repetitive low velocity stresses are applied to the athlete at all points of his training, he will adapt and carry that over into the sport. As a result, the athlete will undoubtedly become slower in his competitive endeavors.

Relaxation is paramount in facilitating subsequent contraction of the agonist muscles. The issue isn't how fast the athlete can contract but rather how fast he can *relax!* If an athlete can grasp and train this mechanism, AFSM will bridge the gap between novice and elite athletes. It will allow for increased intermuscular coordination and decreased time of the relaxation/contraction pathway. In addition (and you may not believe me when I tell you this, but you will once you try it with your athletes), AFSM won't only increase the velocity at which the athlete moves lighter loads, but it will also increase his overall RFD and general strength as well!

Two summers ago, I took six athletes from my hockey team (if you haven't realized already, they are my lab rats) and changed their workout parameters to test my AFSM methods. All of these athletes had been in the Gopher strength program for three years, so their conditioning and strength levels were fairly high. In the first two phases of the summer, they performed the same triphasic and 55–80 percent lifting as the rest of the team, just as my teams do every year. For the last six weeks of the off-season, I changed their workout parameters to only use loads equal to 25–55 percent of their 1-RM and had them perform my AFSM methods. When I tested the entire team at the end of the summer, I was shocked. Not only had the AFSM methods made these six athletes more explosive, but they had made them stronger as well! I will use one athlete as an example. At the end of his base phase, he could bench 285 pounds, but it was a strained and slow effort. It looked as if he was competing in a powerlifting meet and going for his last attempt trying to squeeze it out. At the end of the AFSM training, he retested with a bench of 325 pounds that flew off his chest! He literally pulled the bar down to his chest, hit the isometric like a rock hitting concrete, and exploded through the bar like he was throwing a chest pass in a basketball game. It was one of the most impressive things I have ever seen in terms of nervous system adaptation.

6.3: LOADING PARAMETERS

In order to simulate the velocities seen in competition, the loads used during this mesocycle are light—25–55 percent of an athlete's 1RM. When using lighter loads such as these, the emphasis must be placed entirely on getting the athlete to relax and contract the antagonist/agonist complex trained in the movement. Because the loading of the movement is light, the high power stimulus must come from the athlete maintaining a very high average velocity throughout the entire movement, rapidly accelerating and decelerating the bar during both the eccentric and concentric phases. The athlete must constantly push the bar during the concentric phase and rapidly (and intentionally) pull the bar down during the eccentric phase of each repetition. As a result, the loading parameters for this phase are unique from the others. They differ in three ways:

- 1) Sets are based on time as opposed to performing a prescribed number of reps
- 2) Loads and times used are static—they don't change for the duration of the phase
- 3) Progression is derived from increasing work rate within the set rather than altering other parameters

Many coaches have a hard time believing the use of such light loads can yield such dramatic improvements in athletic performance. However, everything I saw in the training of my athletes told me I had to go lighter and faster to reach a level of transferability that would allow for the continued improvement of the athlete through the peaking phase. The results from the first summer that I implemented this method—the four weeks leading up to the season—was proof in the pudding. My hockey players didn't train with a weight on their backs or in their arms that was greater than 55 percent of what they had done the previous spring. The results? Every athlete maintained his strength levels while decreasing his pro-shuttle and 20-yard dash time and increasing his vertical jump height. Light loads improved sport performance. Table 6.1, below, shows the loading scheme (sets/reps/percentages) for my high velocity peaking mesocycle.

TABLE 6.1: BELOW 55% LOADING VARIABLES							
PARAMETER	APPLIED FOR SPORT SPECIFIC PEAKING	MONDAY LOADING (IDEAL TIME)		WEDNESDAY LOADING (BELOW IDEAL TIME)		FRIDAY LOADING (ABOVE IDEAL TIME)	
		SET DURATION (SECONDS)	LOAD	SET DURATION (SECONDS)	LOAD	SET DURATION (SECONDS)	LOAD
STRENGTH SPEED	<ul style="list-style-type: none"> • SHOT PUT • FOOTBALL: LINEMAN • VOLLEYBALL 	5	35-40%	3	45-55%	7	25-30%
SPEED STRENGTH	<ul style="list-style-type: none"> • FOOTBALL: SKILL PLAYERS • BASEBALL • SOFTBALL • 100M SPRINTER 	7		5		10	
STRENGTH ENDURANCE	<ul style="list-style-type: none"> • HOCKEY • BASKETBALL 	15		10		17	
ENDURANCE STRENGTH	<ul style="list-style-type: none"> • SOCCER • MEN'S/WOMEN'S LACROSS • SWIMMING: 50-200M 	25		17		32	
ENDURANCE (MODERATE)	<ul style="list-style-type: none"> • SWIMMING: 200M+ • 400M RUNNER 	32		25		40	
ENDURANCE (LONG)	<ul style="list-style-type: none"> • 800M+ RUNNER • DISTANCE SWIMMER • ROWING 	40		32		47	

Sets are no longer defined by a number of prescribed reps. Instead, the athlete performs as many reps as possible in a specified time frame that is either at, above, or below his ideal time for his respective sport (you will notice this in table 6.1 under each daily loading scheme). The underlying goal of this phase is to try and get the athlete to perform work at velocities and forces close to those seen in competition. Again, sport is all about who can do more work in less time. To motivate the athlete to perform as much work as possible, give him a time limit. One of the biggest advantages I have found using AFSM methods with timed parameters is its ability to be energy system specific for the athlete. For example, sports such as football consist of short, intense work bouts followed by moderate rest periods. In looking at table 6.1, you can see that a speed/strength athlete such as a football player would perform sets lasting seven, five, and ten seconds, respectively, on each of the three training days. This not only increases the rate of force development for the athlete by promoting reciprocal inhibition of the agonist/antagonist complex, but it also increases sport-specific work capacity.

If you choose, you can make this more specific by breaking down a sport by position. For example, the above speed/strength parameters (seven, five, and ten seconds) may work better for a skills position player such as a wide receiver or safety. Other players, such as offensive or defensive linemen who typically don't cover as much ground on a play, may be better suited to perform their sets with the strength/speed parameters (five, three, seven seconds). Again, the main goal here is athletic task specificity and transferability. The closer you as a coach can mold the parameters to an athlete's competition, the better the gains and transfer will be.

In addition to time being used instead of reps, the loading parameters change as well. Instead of progressing the loads and sets each week, they will be held constant for the duration of the phase. If the athlete starts the phase on Monday with 40 percent of his 1RM on the bar for three sets of five seconds, he will keep that 40 percent on the bar every Monday and perform three sets for five seconds for the duration of the phase. This is done for two reasons. First, with the use of such light loads, progressing 2.5–5 percent over a three- to five-week period is useless in the sense of promoting adaptation by increased loading. The loads are just too light to accomplish

this. Second, by keeping both the load and time constant, you are establishing a marker that shows progression. If the athlete gets seven repetitions in five seconds in the first week but gets nine repetitions in five seconds in the second week, it is clear that the athlete has progressed. During this phase, progression is derived from increasing work rate within the set rather than altering other parameters.

6.4: BELOW 55 PERCENT TRAINING BLOCK

Now that you understand the loading scheme and undulation used within the high velocity peaking phase, let's take a closer look at the actual block that makes up this mesocycle. The chart below shows the loading variables used on each day of the three-day training week. Here lies the last *big* difference between this phase and previous ones. The only training model that I use for this phase is the three-day. I don't use a four-day, five-day, or six-day peaking model when the mesocycle is immediately before the competitive season. (However, there is a two-day in-season model for maintaining these qualities during the season.) In my experience, as athletes approach the competitive season, additional stress from more frequent practice sessions, sport-specific conditioning, the start of a new school year or semester, and/or other variables increases to such a degree that I can only reasonably get three good, hard training days out of the athletes. This allows for two things:

- 1) It ensures that the athlete isn't overtrained in any capacity going into a competitive season.
- 2) It ensures that the athlete is fresh and recovered for practice, which allows him to practice at the same speeds and intensities that he'll produce in a game (task specificity and transferability).

That isn't to say that other training day model lengths don't work; they do. They just don't work when you're approaching the season. In the middle of the training year when I'm going through my normal mesocycle progression, I implement a four-day and five-day high velocity training model effectively.

Just as before, the length of the block can be shortened or extended to fit different peaking schedules. Typically, my athletes perform this block for three weeks; this has shown to be optimal. There are times, however, where the block can be extended to as long as five weeks if needed. Thinking back on what you learned about residual training effects, the strength and power gains from the previous two phases can be maintained for 25–35 days or longer, if the athlete returns to the methods that specifically trained those parameters for brief periods within subsequent phases.

TABLE 6.2: BLOCK 5 LOADING VARIABLES (BELOW 55 PERCENT)				
BLOCK	DAY	LOAD	REPS	SETS
BLOCK 5 3-5 WEEKS	MONDAY (MEDIUM INTENSITY)	35-40%	PARAMETER BASED ON TIME	3-5
	WEDNESDAY (HIGH INTENSITY)	45-55%		3-5
	FRIDAY (HIGH VOLUME)	25-30%		3-5

Unlike previous phases where we used a progressive loading scheme to constantly spur gains week after week, training with timed sets self-regulates work load by changing the repetitions completed during the time period rather than varying the load on the bar. For example, here an athlete will keep 40 percent of his 1RM on the bar for three straight weeks. However, the number of repetitions he completes for a workout will increase, thus increasing the overall stress placed on the athlete.

TABLE 6.3: PROGRESSIVE LOADING SCHEME FOR BELOW 55 PERCENT				
LOADING PARAMETER	TIME PARAMETER	EXERCISE	WEEK	REPS COMPLETED (BEST SET)
35% 1RM	7 SECONDS	BENCH PRESS	1	10
			2	12
			3	13
			4	15

Table 6.3 shows how even though the load and time of the exercise remain constant for the entire four-week training block, the number of repetitions the athlete can complete within those parameters increases from ten to fifteen. The result is that the athlete can complete more work at a very high velocity, raising the stress level, in less time. Does that sound familiar? It's the same thing that defines sport, isn't it? The athletes who can do more work in less time win.

6.5: SPECIALIZED METHODS OF APPLYING TRAINING MEANS

TIMED METHOD OF TRAINING

I had two main questions when implementing time methods into my system—"will the athlete train harder with time?" and "would he accept it as a training method/modality?" Before I switched over to my time system, I ran a brief experiment with my athletes. For several weeks, I secretly timed how long it took them to complete the prescribed number of repetitions for each exercise during their workout. The team was in the middle of their high force at high velocity mesocycle, so many of the exercises were prescribed for eight repetitions. As a general rule, I found that most of the athletes took twelve seconds to complete the eight repetitions.

For the second phase of the experiment, I changed the parameters on their workout sheet to read twelve seconds per set instead of eight repetitions. If you want to see some dumbfounded looks, just give your athletes a workout sheet using time instead of repetitions. The looks are priceless. My athletes are used to me having them do as they call it "weird" stuff, so they went along with it. They were glad they did because it turned out that when using time as the parameter with the instruction of "get as many reps as possible," the athletes completed four additional repetitions on average than before. Instead of doing eight reps in twelve seconds, they were doing twelve reps in twelve seconds! I continued to experiment with timed parameters with other teams and found the same thing to be true across the board. The athletes typically increased their work rate or density of training by 50 percent if the set was completed with time as a parameter as opposed to repetitions. More work in less time—where have I heard that before? Oh yeah, it's the basic principle of sports performance! By training with time, I came to the realization that the athlete will become much more aggressive and train much more intensely over the same period of time by periodizing the duration of the set with seconds instead of repetitions.

This is essential when using lightened loads such as those under 55 percent of an athlete's 1RM. Using a simple set/rep scheme with such light loads is inefficient at stimulating positive

adaptation. The loads are so light that an athlete can inadvertently coast through a set if he isn't focused on pushing/pulling every rep as fast as possible. He isn't maximally stressing himself. When using such light loads, maximal stress is elicited by maximal velocity of movement, which in turn creates very high levels of force. Decades of research and training have shown that intensity of exercise is the key to pushing an athlete to the next level. Within that intensity comes volume and work capacity, both key factors for performing at a high level. Switching the sets to be based on a time parameter instead of a repetition based parameter will motivate the aggressive athlete to push himself to train more intensely with the preferred duration. Many times, you'll see a 50 percent increase in volume over the same time that would've been trained using the rep scheme. And you won't just see raw volume but sport-specific volume—high velocity, powerful work.

Time is an excellent way to peak an athlete and measure performance. To do this, I turn each set into a mini competition where the athlete must beat the number of reps that he achieved on a previous set. The athlete's training sheet has a list of exercises with the number and duration of the sets to be completed. On the back side is a replica table with all the exercises listed (figure 6.3). That box is where the athlete will record the highest number of repetitions that he achieved during any of the sets for that given exercise during the workout—his personal best for the day. The next time the athlete comes into train, he tries to beat his previous record.

Every time the athlete trains during the peaking block, he will know what his best repetition was with the particular weight advised and the load, regardless of whether the block was two weeks or four weeks. The athletes often try to push themselves to higher and higher levels by raising the repetitions performed based on the time duration of the set. The downside is that as a strength coach, you may have to purchase digital clocks or handheld stopwatches for the weight room. I have four digital clocks hanging in my weight room of about 4000 square feet. Often, the athletes will need to train with a partner. I believe this is a necessity so that they have someone to watch the clock whether that person is an athlete or a coach. Regardless, someone must always be watching the athlete.

495	Hex Deadlift	T	100 - 125	2	00:00:5:10															
	PW/ 15 Rest BB																			
	Cuban PRSS INC FB		5		2															
	PW/ 15 Rest BB																			
	Ankle Band Work		8		2				Each Side											
	Squat Drop Jump	T			2				00:00:7:10											
	PW/ 15 Rest BB																			
	4 way neck		6		2															
495	Hex Deadlift	T	345 - 370	2	00:00:7:10															
215	SL Hex Deadlift	T	65 - 75	3	00:00:7:10															
	PW/ 30 Rest BB								oc-D											
	Hip Flex Prone oc	T			3				00:00:7:10											
	PW/ 30 Rest BB																			
114	DB BO Row	T	85 - 90	3	00:00:7:10															
325	BENCH PRESS		5.3	165 - 220	1.1															
	PW/ 30 Rest BB																			
	Med Ball Pass		5		2															
	PW/ 30 Rest BB																			
325	BENCH PRESS	T	165 - 180	2	00:00:7:10															
325	BENCH PRESS	T	100 - 115	3	00:00:7:10															
	PW/ 30 Rest BB																			
	GH HYPR Incline		5		3				00:00:7:10											
	PW/ 30 Rest BB																			
81	DB Shoulder Press	T	25 - 30	3	7 - OC-D															
	Band Tricep Extension	T			2				00:00:7:10											
	PW/ 30 Rest BB																			
	Bicep shock curls	T			2				00:00:7:10											
	PW/ 30 Rest BB																			
	90 90 Grion ISO Hold	T			2				00:00:7:10											

Figure 6.3: Example exercise sheet that shows the front and back of a AFSM high velocity peaking workout.

AFSM HIGH VELOCITY STRENGTH METHOD

This method is the most prevalently used throughout the peaking phase. It is a fancy way of saying, “Move the bar as fast as possible all the time.” The best coaching cue to give an athlete is to push the bar during the concentric phase of the movement and pull it as hard as possible during the eccentric. This should look violent. The athlete should, if done correctly, throw himself off with the concentric and slam himself back down with the eccentric (see example exercise in table 6.4).

When using high velocity strength training, the athlete uses loads ranging from 25–55 percent of his 1RM. As an example, when teaching the back squat, the coach will instruct the athlete to pull himself down for the eccentric part of the lift using the glutes and hamstrings as rapidly as possible. Because of the force velocity curve, the athlete will put out a greater amount of force with increased speed during the eccentric portion of the lift. While this goes against the conventional advice of a “slow and controlled descent,” it is much more specific to the ballistic actions that occurs in sports. Once the athlete reaches the depth that was set by the coach, he must work to abruptly stop the load and reverse it in the opposite direction as explosively as

possible. By being able to withstand the load of the barbell and lift it up with an average velocity near or exceeding one meter per second² (this can be quantified using a Tendo unit if one is available to the coach), he is truly maximizing the SSC in his strength training. When looking at the workout sheets, assume that every exercise is to be performed with this method unless otherwise noted.

TABLE 6.4: AFSM HIGH VELOCITY STRENGTH TRAINING EXAMPLES		
EXERCISE	CONVENTIONAL METHOD	AFSM METHOD
BACK SQUAT	HYPERLINK	HYPERLINK
BENCH PRESS	HYPERLINK	HYPERLINK

AFSM OSCILLATORY METHOD

Another method that can be employed with high velocity strength training is the use of oscillatory contractions. We talked about these briefly in section four. The main difference here is that they are now performed with the addition of a time parameter. Oscillatory contractions work to enhance the intermuscular coordination of opposing muscle groups. Intermuscular coordination is the efficiency in which different groups of muscle can contract and relax in order to perform a given motor task. This becomes possible because of the principle of reciprocal inhibition where the SSC will excite one group of muscles while relaxing another group of muscles. Being able to efficiently make use of reciprocal inhibition is another method that will then facilitate the high velocity relaxations that are fundamental to Matveyev's research findings.

Oscillatory contractions are performed with light loads in the 20–55 percent 1RM range in order to maintain the high velocity component. The contractions are performed at one of two points in the athlete's range of motion—an advantageous joint angle (specific point in the athlete's range of motion where he is strongest) or a disadvantageous joint angle (specific point in the athlete's range of motion where he is the weakest). When the joint angle is identified, the athlete will

bring the weight to that specific joint angle, lift it explosively over a very small range (about 3–4 inches), and then pull the load very explosively in the opposite direction. These contractions are repeated as rapidly as possible for the amount of reps prescribed by the coach.

As an example, when performing a single leg oscillatory squat (table 6.5), the athlete would be using a load of 30 percent of his single leg squat 1RM. The athlete would position the bar on his back with one foot elevated behind him. When performing the single leg oscillatory squat at a disadvantageous point, he would squat so that his femur on the front leg is parallel with the ground. In this position, the athlete would raise and lower the hips as rapidly as possible over the small range of motion (about 4–6 inches) for the duration of the set. The coach will instruct the athlete to “pull himself down with his glutes and hamstrings and drive up through his heel” as fast as he possibly can.

While performing the single leg oscillatory squat in the advantageous position (table 6.5), the athlete would position himself so that his femur sits above parallel at about a 45- to 60-degree angle. The oscillatory contractions would then be performed at the advantageous joint angle where the athlete is strongest. These extremely rapid contractions and relaxations throughout opposing muscle groups help to better enhance intermuscular coordination as well as high velocity relaxation that Masters of Sport have shown.

TABLE 6.5: AFSM OSCILLATORY TRAINING EXAMPLES			
EXERCISE	CONVENTIONAL METHOD	AFSM METHOD	
SINGLE LEG BACK SQUAT	HYPERLINK	ADVANTAGEOUS	HYPERLINK
		DISADVANTAGEOUS	HYPERLINK
BENCH PRESS	HYPERLINK	ADVANTAGEOUS	HYPERLINK
		DISADVANTAGEOUS	HYPERLINK

AFSM PLYOMETRIC METHOD

Performing AFSM plyometric training differs from conventional jump training because in AFSM the powerful eccentric action placed on the muscle tendon series is initiated by a strong contraction of the antagonist muscles. For this to happen, there must be a simultaneous relaxation of the agonist muscle group while the drop is occurring. When performing a squat drop jump in AFSM plyometric training, the athlete would begin standing in an upright position on the ground. The athlete would then forcefully pull his hips down with the glutes and hamstrings, causing them to go into a free fall by lifting the knees and feet in the air. For this to happen, there must be a relaxation of the anterior knee extensors (the agonists of the jump) while the descent is facilitated by the antagonists (glutes and hamstrings) pulling the athlete down. This will bring the athlete into a power position (a knee joint angle of approximately 45–60 degrees, which is more advantageous for force production) while falling through the air. As soon as the athlete strikes the ground, there must be an all out effort to reverse the action as fast and explosively as possible. This will help the athlete achieve maximum height in the vertical portion of his jump.

When performing a squat drop jump, the coach must cue the athlete to pull himself down as forcefully as possible with the hamstrings and glutes, the antagonistic muscles of the jump. The next aspect, which is crucial for the coach to communicate, is that once the athlete strikes the ground, he must drive off it the very instant he hits the floor. I've found that the best cue is to tell the athlete to attack the ground. When properly performed, the agonistic muscles are turned on, causing a forced/facilitated relaxation of the antagonistic muscles (glutes and hamstrings) that were just used to pull the athlete into position.

By comparison, when performing a traditional counter movement jump, an athlete would normally squat down in a fast manner in order to create a SSC from the leg extensors that would aid his ascent into the air. However, this limits the force output because the ground contact lasts too long and doesn't allow for a forceful pre-stretch in the muscle tendon complex. When performed correctly, AFSM can create a higher amount of eccentric force, which in turn can be released in a more forceful concentric action of the jump.

The most crucial aspect of coaching any type of AFSM training is that you are able to tell if the athlete is withstanding the impact of the drop while maintaining joint stiffness (ability to keep the same joint angle when experiencing impact during shock training) and minimizing ground contact time. If the athlete isn't able to maintain joint stiffness, the coach must go back and address the athlete's lack of eccentric and/or isometric strength.

TABLE 6.6: AFSM PLYOMETRIC TRAINING EXAMPLES		
EXERCISE	CONVENTIONAL METHOD	AFSM METHOD
SQUAT DROP JUMP	HYPERLINK	HYPERLINK
HURDLE HOP	HYPERLINK	HYPERLINK

AFSM SHOCK METHOD

The methods of AFSM shock training are very similar to those outlined in AFSM plyometric training. However, as indicated earlier, the AFSM shock training methods are significantly more forceful due to the height of the drop and the brief ground contact time. When performing the drop box jump in AFSM shock training, the athlete will begin on a box at a height of at least twelve inches while standing upright. The athlete will then fall off the front of the box, not step off the box. During the athlete's descent, he will pull himself into a power position. Joint stiffness must be maintained with the power position that is achieved while falling through the air. The very instant that the athlete strikes the ground, he must work to reverse the action and jump on to the next box.

It's essential in the shock training that the coach cues the athlete in a similar way to the AFSM plyometric training, telling the athlete to pull himself down while he's falling through the air and to drive off the ground as explosively as possible as soon as he hits. Because the height that the athlete is falling from is greater than that of the AFSM plyometric training, the laws of physics dictate that AFSM shock training will be significantly more forceful than AFSM plyometrics.

The one exception within my below 55 percent high velocity peaking method is that time isn't used as a parameter. Instead, this method is performed using conventional set/rep parameters. Due to the increased time it takes to perform a single repetition of this method (the drop time from the box and the additional time to step down from the box the athlete jumped on to and back on to the box the athlete jumped from), it is impossible to complete quickly while keeping quality height. This method, therefore, is performed typically as 2–8 sets of 2–5 reps.

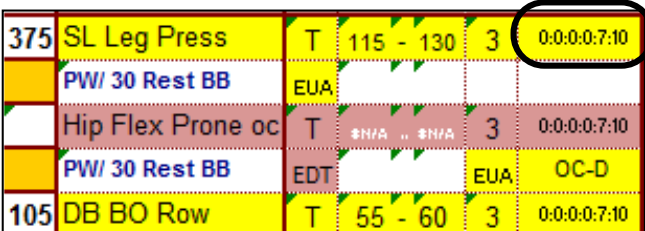
TABLE 6.7: AFSM SHOCK TRAINING EXAMPLE

EXERCISE	CONVENTIONAL METHOD	AFSM METHOD
DEPTH JUMP	HYPERLINK	HYPERLINK

6.6: HOW TO READ THE WORKOUT SHEET: PART II

Before we get into the actual below 55 percent high velocity peaking programs, there is one additional piece of information I need to give you so that you can read the workout sheets. Earlier in the book, I explained the four-number system that I placed in the workout programs to convey to the athlete the tempo with which he is to perform an exercise. Each of the four numbers associated with an exercise indicate how long in seconds the specific “phase” (**eccentric**, **isometric**, **concentric**, and **pause time between reps**) should be performed. For example, a squat may have the following tempo—**3:1:0:0**. The first number (**3**) represents the eccentric phase of the movement. The second number (**1**) represents the isometric phase. The third number (**0**) represents the concentric phase. Finally, the last number (**0**) represents the amount of rest between reps. Here it is zero seconds. That should all sound familiar.

For this phase, there are two additional numbers added to the end of the first four. For example, the number sequence will now appear as **0:0:0:0:7:10**. The first four numbers are exactly the same as before, representing the eccentric, isometric, concentric, and pause times, respectively. The fifth number (**7**) represents the time parameter of the set. It tells the athlete how many seconds he is to perform the high velocity reps in with whatever method is prescribed. The final number (**10**)



375	SL Leg Press	T	115 - 130	3	0:0:0:0:7:10
	PW/ 30 Rest BB	EUA			
	Hip Flex Prone oc	T	*N/A .. *N/A	3	0:0:0:0:7:10
	PW/ 30 Rest BB	EDT		EUA	OC-D
105	DB BO Row	T	55 - 60	3	0:0:0:0:7:10

- Figure 6.4

communicates the amount of time the athlete should rest between limbs on a unilateral exercise. For example, in figure 6.4, the athlete would perform repetitions of a single-leg leg press reactively (the first four numbers are all zeros) for seven seconds with one leg, rest for ten seconds, and then perform reps for seven seconds with the other leg. This would be repeated for three sets. If there is ever a number in the sixth slot for a bilateral exercise (both limbs work at the same time), simply ignore it and perform the exercise as prescribed by the other parameters.

6.7: MONDAY, MEDIUM INTENSITY (SPORT-SPECIFIC TIME: IDEAL)

LOADING

Below is a section from the loading table showing exclusively the loading variables applied on Monday. Remember, the loads and times don't change during the block. The emphasis is placed on the athlete performing more repetitions (high quality work) within the same parameters.

TABLE 6.8: MONDAY LOADING (IDEAL TIME)			
PARAMETER	APPLIED FOR SPORT-SPECIFIC PEAKING	SET DURATION (SECONDS)	LOAD
STRENGTH SPEED	<ul style="list-style-type: none"> • SHOT PUT • FOOTBALL LINEMEN • VOLLEYBALL 	5	35-40%
SPEED STRENGTH	<ul style="list-style-type: none"> • FOOTBALL SKILL PLAYERS • BASEBALL • SOFTBALL • 100-M SPRINTER 	7	
STRENGTH ENDURANCE	<ul style="list-style-type: none"> • HOCKEY • BASKETBALL 	15	
ENDURANCE STRENGTH	<ul style="list-style-type: none"> • SOCCER • MEN'S/WOMEN'S LACROSSE • SWIMMING 50-200 M 	25	
ENDURANCE (MODERATE)	<ul style="list-style-type: none"> • SWIMMING 200 M+ • 400-M RUNNER 	32	
ENDURANCE (LONG)	<ul style="list-style-type: none"> • OVER 800-M RUNNER • DISTANCE SWIMMER • ROWING 	40	

WORKOUTS

Below, you will find Monday's workout for the three-day below 55 percent high velocity peaking block. The column on the left is the actual workout, using our "imaginary" athlete to calculate the loads used on each exercise. The column on the right labeled "Coaching Points" gives further explanation about exercise sequencing and important coaching queues to use with your athletes. The coaching points are labeled with the respective workout box that they apply to.

At the end of this section, you will find additional three-day programs specifically designed to peak football, baseball, basketball, and swimming athletes.

BLOCK FIVE, MONDAY

100%	MONDAY				
		REPS	LOAD	SETS	NOTES
575	Hex Deadlift	T		2	0:0:0:5:10
	PW/ 15 Rest BB	EU		EU	ISO
	Cpress Ext Rot rev Band OC	T	\$N/A .. \$N/A	2	0:0:0:0:7:10
	PW/ 15 Rest BB	EDT			Each side
	Ankle Band Work	T		2	0:0:0:0:7:10
	Squat Drop Jump	C1T	\$N/A .. \$N/A	2	2% - Tendo
	PW/ 15 Rest BB	EU		EU	Set Drop off
	4 way neck	6	\$N/A .. \$N/A	2	
				EUA	Reactive
375	SL Leg Press	T	150 - 170	2	0:0:0:0:7:10
375	SL Leg Press	T	115 - 130	3	0:0:0:0:7:10
	PW/ 30 Rest BB	EUA			
	Hip Flex Prone OC CL	T	\$N/A .. \$N/A	3	0:0:0:0:7:10
	PW/ 30 Rest BB	EDT		EUA	OC-D
105	DB BO Row	T	55 - 60	3	0:0:0:0:7:10
	Cpress Int Rot Band OC	T	\$N/A .. \$N/A	2	0:0:0:0:7:10
	PW/ 30 Rest BB	EU			
	Med Ball Pass	5	\$N/A .. \$N/A	2	ONE ARM
	PW/ 30 Rest BB			ED	OC-D
105	DB BENCH	T	40 - 45	2	0:0:0:0:7:10
105	DB BENCH	T	40 - 45	2	0:0:0:0:7:10
	PW/ 30 Rest BB			ED	oc-D
	GH HYPR Incline	T	\$N/A .. \$N/A	3	0:0:0:0:7:10
	PW/ 30 Rest BB	EUA		ED	OC-A
38	DB Side Lat Raise	T	15 - 15	3	7 - OC-D
	Band Tricep Extension	T	\$N/A .. \$N/A	2	0:0:0:0:7:10
	PW/ 30 Rest BB	EDT		EU	oc-D
	Bicep shock curls	T	\$N/A .. \$N/A	2	0:0:0:0:7:10
	PW/ 30 Rest BB	EDT			
	OC Ball Groin Squeeze	T		2	0:0:0:0:7:10
	GH HANG	120S	\$N/A .. \$N/A	1	
	Pair w/				
	Rollers Glutes & Hams	120S	\$N/A .. \$N/A	1	
	Pair w/				
	LAYING RELAXATION	120S		1	

COACHING POINTS AND EXERCISE TUTORIAL

Box 1

-This hex deadlift is a 5 second isometric in the advantageous position, pulling against the fixed rack with slightly bent knees

-The maximal isometric simulates a hormonal and nervous system response crucial for the rest of the workout

-This cuban press variant stimulates the rotator cuff at higher velocities for more experienced athletes

-For the ankle band work, each side is done for 7 seconds

[Hex Deadlift](#); [Cpress Ext Rot Rev Band Oc](#); [Ankle Band Work](#)

Box 2

-For the squat drop jump, pull into an athletic jumping position forcefully; reverse direction immediately upon impact

-If using a Tendo, a 2% dropoff point is used such that after an athlete drops below 98% of his/her maximal jump, the set is finished

-On the SL leg press, pull the leg down violently (so fast it separates from the machine); the athlete catches the leg press and throws it up reactively

[Squat Drop Jump](#); [4 way neck](#); [SL Leg Press](#)

Box 3

-The prone hip flex OC CL is a high speed hip flexor movement using contralateral limbs to mimic sports specific hip involvement

-For the dumbbell bent over row, cue the athlete to push and pull the dumbbell with the elbow near the ribs

[SL Leg Press](#); [Hip Flex OC Prone CL](#); [DB BO Row](#)

Box 4

-Perform the DB bench in the disadvantageous position (near the chest); Push and pull the dumbbells as fast as possible (Note: some athletes push so violently they come off of the bench)

[Cpress Int Rot Band OC](#); [Med Ball Chest Pass](#); [DB Bench](#)

Box 5

-The GH hyper incline is done in the advantageous position in the peaking cycle; the torso and knee should form a straight line

-The DB side lat raise educates the deltoids to fire and re-fire

[DB Bench](#); [GH HYPR Incline](#); [DB Side Lat Raise](#)

Box 6

-The band tricep extension utilizes the AFMS principles

[Band Tricep Extension](#); [Bicep Shock Curls](#); [OC Ball Groin Squeeze](#)

Box 8

[GH HANG](#); [Rollers Glutes and Hams](#); [Laying Relaxation](#)

✓ COACH'S CORNER

TRANSFERRING FORCE AND IMPROVING PERFORMANCE THROUGH THE FOOT AND ANKLE COMPLEX

BY: CAL DIETZ & BEN PETERSON

EDITED BY: DANIEL RAIMONDI

Over many years of coaching I have witnessed athletes who have made tremendous gains in knee and hip flexion and explosiveness in their training, yet this training time and advancement never seem to transfer into training results for testing. Then one day about 8 years ago I was able to spot the main reason why all this newly developed athletic potential and speed did not transfer over into testing. The question arose with several athletes I made much stronger in the knee and hip joint, along with explosion from those various joints. However, in testing the athletes' 10 and 20-yard dash we didn't see the results that we anticipated based on their gains everywhere else in the weight room and/or vertical jump. When we tested one particular athlete we saw no advancements in the 10 and 20 yd dash, which was a huge concern and misunderstanding on my part. I realized at this point that I must dig into this to its fullest extent.

As I reviewed the tape of the athlete running the starts in the 10 and 20 I was able to spot something that was of key importance. The original reason I was video taping was to rectify some technical flaws that could improve the 10 and 20 times, but since this athlete was a hockey player, just by practicing the skill he got much better. Anyone that has ever trained a hockey athlete for running realizes how poor the technique often is when they start coming right out of the season. What I saw on this day was that as the athlete's foot struck the ground on the second step I saw that the heel lost 2-3 inches from the point when the toes hit the ground. When I say "lost" I mean there was a reversal of direction of the center of mass in the body and the heel thus, became closer to the ground. This indicated a loss of power being, incapable of helping the athlete run faster.

I then reversed the tape and looked at the first step and the same thing was happening with the athletes out of the initial start. I realized what had taken place: I made the hip and knee joint much more powerful and stronger, but the ankle joint (being a hockey player) couldn't absorb the force from the knee and hip. It was as if all the athletes had been running their times on sand. Since I made the hip and knee stronger the ankle, the weak link in the chain, was unable to absorb the force that dampened the stiffness qualities and those particular testing results. By addressing the ankle complex weaknesses that existed to absorb the force and power we were able to within one week make the ankle complex strong enough to withstand the foot striking the ground.

This can often be seen in a number of populations. The aforementioned example of hockey players is obvious because they spend most of the season in the boot. Basketball players are often suspect because their ankles become weakened in the season due to the excessive taping

and braces that they wear. I've seen throwers (shotput and/or discus) have this coming across the ring as they change directions. This technique flaw often happens when they start to spin and transfer across the rear of the ring to the front of the ring. You will see their ankle give and at that point many gains can be made in speed and quickness in the ankle and foot.

One must have a full understanding of the foot/ankle complex and its functions many athletes demonstrate dysfunctional patterns in the said area. Hopefully you have a good medical staff that can manipulate the foot (Or are willing to learn if they can't) to better transfer this force into the ground such that performance improves. Fortunately, I have been able to learn a number of techniques to help manipulate the foot so that it functions better. Without functioning correctly you will never get the entire benefits of the training program.

Let's first look at the basic functions of the ankle foot as it's used in sport. As the foot strikes the ground, whether during acceleration or at top speed, near the small toes as it tries to find the ground. What then occurs is a transfer of forces from the small toes over to the big toe at push off. The transference is utilizing the size and strength of the big toe in running; this action must be used in all movements in training. So keep in mind that in every possible action you must use a few key coaching points/actions with your athletes:

1. Focus on pushing through the big toe

You will see a huge improvement in their jumping ability if you add this one component to your jumping/plyometric programs. Also, in any weight lifting movement that applies extension of all three joints (at a slow or high speed) this also must be implemented to transfer weight room performance to the field. So, in your cleans, cue the athletes to push through the big toe at the top of the pull. This is not recommended for Olympic weight lifters; however, for sports performance it would be highly recommended. The walking lunge is another example of how this should be implemented. As an athlete would push and finish off the movement at the top, all the forces must be transferred off the foot to the big toe to strengthen it and emphasize its mobility and strength at the range of motion.

2. Calf raises for sport training should be done explosively with a knee bend.

That knee bend must be timed with the extension of the foot at the top when completing the exercise. The feet sometimes misfire on the timing at the beginning of sporting movements, but remember it is an absolute necessity to transfer all the actions on the joint to the sporting field. Bodybuilders would not want to implement this. Athletes should execute this exercise at the end of the a training cycle in the last 4-6 weeks. Just completing heavy loads without the knee bend would be fine, but keep in mind you must always finish with the explosive knee bend calf raises, being sure to push through the big toe at the top.

No matter what sport you play, if it involves movement with the legs, you must constantly coach the athletes up on these finer points of foot function. Essentially, what happens is they're losing all the potential power from the main two joints of explosion and not transferring it onto the speed on the field. I've seen too many athletes underutilize their potential and have a simple

biomechanical problem that can't be transferred over because of one joint in the kinetic chain in applying power and force to the ground. You lose so much potential.

Having your squatting potential transfer to the sporting field to optimize results:

Many athletes and/or coaches use an Olympic or powerlifting style squat when they are performing front and back squats when training for sport. Let's keep in mind that these are all excellent exercises in gaining strength for athletes to become faster and more explosive. Please keep in mind that I use these various techniques throughout the year, but you can't get the greatest sport results by not changing up these methods once your athletes have become strong enough. When making this statement one must realize that you can't keep squatting heavier and heavier and have performance keep improving. This has never been the case with any athlete that I've seen. You must have a level of strength that is high enough to perform the task at hand. Once the strength has been developed one must use more sports specific methods to transfer the gains made from the Olympic and power-lifting squat over to the field.

This is where the "sport back squat" comes into play. The sport back squat essentially is taking your wider stance squat and moving the feet of the athlete to a very narrow position (shoulder width or slightly within/outside based on size). The reason for this is that during the majority of performances the athlete completes the feet will be in this position. To facilitate the transfer and strength gains from the Olympic and power lifting style back squat, the last 4 to 6 weeks of training (potentially longer during the in season) would use the sport back squat to get the most specific position of your feet when squatting. Some things change in this particular style of squat, especially with athletes that have a long thigh bone; they will not be able to go as deep as before as in the Olympic or power lifting style back squat. Keep in mind when you switch from the Olympic or power lifting style back squat to the sport back squat that you most likely won't have your athletes go as deep for biomechanical reasons. So realizing that your athletes won't go as deep you must increase the glute and hamstring work in your programming because you will not be utilizing the hamstring and glutes as much as you would in the deeper Olympic and power squats.

Many people often ask, "Well is not squatting deep the ideal thing for my athletes?" I would say unless they are going into some type of squatting competition not to worry about it because in sport they rarely ever get into that deep of a position; also, they will not lose much strength in regard to squatting during the transition time utilizing the sport back squat, which again should be the last 4 to 6 weeks of your training cycles to get optimal transfer of sports performance. Dr. Bondarchuck rarely ever squatted his athletes that deep because they never went into those deep positions in their throwing movements. He felt that squatting at the angles that they would compete at was optimal and got the best results. His results speak for themselves, being arguably the greatest coach in the history of the summer games. Just remember when utilizing the sport back squat one can also come up with some very specific glute and hamstring exercises to help your athletes transfer into their sporting event.

6.8: WEDNESDAY, HIGH INTENSITY (SPORT SPECIFIC TIME: BELOW IDEAL)

LOADING

Below is a section from the loading table showing exclusively the loading variables and set durations applied on Wednesday. Remember, the loads and times don't change during the block. The emphasis is placed on the athlete performing more repetitions (high quality work) within the same parameters.

TABLE 6.9: WEDNESDAY LOADING (BELOW IDEAL TIME)			
PARAMETER	APPLIED FOR SPORT-SPECIFIC PEAKING	SET DURATION (SECONDS)	LOAD
STRENGTH SPEED	<ul style="list-style-type: none"> • SHOT PUT • FOOTBALL LINEMEN • VOLLEYBALL 	3	45-55%
SPEED STRENGTH	<ul style="list-style-type: none"> • FOOTBALL SKILL PLAYERS • BASEBALL • SOFTBALL • 100-M SPRINTER 	5	
STRENGTH ENDURANCE	<ul style="list-style-type: none"> • HOCKEY • BASKETBALL 	10	
ENDURANCE STRENGTH	<ul style="list-style-type: none"> • SOCCER • MEN'S/WOMEN'S LACROSSE • SWIMMING 50-200 M 	17	
ENDURANCE (MODERATE)	<ul style="list-style-type: none"> • SWIMMING 200 M+ • 400-M RUNNER 	25	
ENDURANCE (LONG)	<ul style="list-style-type: none"> • 800-M+ RUNNER • DISTANCE SWIMMER • ROWING 	32	

WORKOUT

Below, you will find Wednesday's workout for the three-day below 55 percent high velocity peaking block. Coaching points with their respective hyperlinks to the exercises are in the right-hand column.

BLOCK FIVE, WEDNESDAY

COACHING POINTS AND EXERCISE TUTORIAL

100%	WENDESDAY				
		REPS	LOAD	SETS	NOTES
575	Hex Deadlift	T		2	0:0:0:5:10
	PW/ 40 Rest BB			EU	ISO
	Cpress Ext Rot rev Band	T	#N/A .. #N/A	2	0:0:0:5:10
	PW/ 40 Rest BB	ELIA			
	Calf Raises	T		2	0:0:0:5:10
	Squat Drop Jump	T	#N/A .. #N/A	2	0:0:0:5:10
	PW/ 40 Rest BB	ED		EU	
	OC Ball Grion Squeeze	T	#N/A .. #N/A	2	0:0:0:5:10
				EU	Reactive
575	Hex Deadlift	T	290 - 315	2	0:0:0:5:10
575	Hex Deadlift	T	290 - 315	3	Reactive
	PW/ 40 Rest BB	ED		EU	0:0:0:5:10
	Hip Flex Prone oc	T	#N/A .. #N/A	3	0:0:0:5:10
	PW/ 40 Rest BB			EUA	OC-D
105	DB BO Row	T	55 - 60	3	0:0:0:5:10
300	BENCH PRESS	5,3	150 - 200	1,1	
	PW/ 40 Rest BB	EU		ED	
	Med Ball Pass	3	#N/A .. #N/A	2	ONE ARM
				ED	OC-D+1
300	Bench Press	T	150 - 165	2	0:0:0:5:10
300	Bench Press	T	150 - 165	2	0:0:0:5:10
	PW/ 40 Rest BB	EU		ED	OC-D+1
500	Glute Bar Lift	T	250 - 275	3	0:0:0:5:10
	PW/ 40 Rest BB	EUA			
	Delt BO Lat Reb Drop	T		3	0:0:0:5:10
	TriPress Band ASFM	T	#N/A .. #N/A	2	0:0:0:5:10
	PW/ 40 Rest BB	EU			0:0:0:5:10
	Curl Band ASFM	T	#N/A .. #N/A	2	oc-A
	PW/ 40 Rest BB	EDT		ED	SL - OC
	STR Leg OC Glute Lifts	T		2	0:0:0:5:10
					#N/A
	Pair w/				
	GH HANG	120S	#N/A .. #N/A	1	Relax Mouth
	Pair w/				
	Rollers Quads & Back	120S	#N/A .. #N/A	1	#REF!
	Pair w/				
	LAYING WALL SHAKES	120S		1	Relax Mouth

Box 1

-This hex deadlift is a 5 second isometric in the advantageous position, pulling against the fixed rack with slightly bent knees

-For the calf raises, cue the athlete to push through the big toe and use a slight knee bend

[Hex Deadlift](#); [Cpress Ext Rot rev Band](#); [Calf Raises](#)

Box 2

-For the squat drop jump, pull into an athletic jumping position forcefully; reverse direction immediately upon impact

-With a Swiss ball between the knees, powerfully contract and relax the groin for the prescribed time

-In the standard hex deadlift, keep the butt down and chest up, completing as many reps as possible in the prescribed time

[Squat Drop Jump](#); [OC Ball Grion Squeeze](#); [Hex Deadlift](#)

Box 3

-The hip flex prone is done reactively while oscillating

[Hex Deadlift](#); [Hip Flex Prone OC](#); [DB BO Row](#)

Box 4

-For the med ball pass, face the wall, turn towards one hip, and throw the ball as hard as possible

-The bench press is done with the bar near the chest with submaximal loads; push and pull the bar as hard as possible; finish the set on a full repetition

[Bench Press](#); [Med Ball Chest Pass](#); [Bench Press](#)

Box 5

-When doing the glute bar lift, athletes may or may not touch the ground on each rep; the goal should be to perform as many reps as possible in the prescribed time

-The delt BO lat reb drop is designed to improve the explosiveness of the shoulder

[Bench Press](#); [Glute Bar Lift](#); [Delt BO Lat Reb Drop](#)

Box 6

-For the curl band ASFM, the hand must supinate(palm up) at the top, and pronate(palm down) at the bottom. After curling the band, the athlete should try to press it back to the floor

-The straight leg OC glute lifts are used to fire and re-fire the glutes in a very fast manner

[TriPress Band ASFM](#); [STR Leg OC Glute Lifts](#)

Box 8

[GH HANG](#); [Rollers Quads and Back](#); [Laying Wall Shakes](#)

✓ COACH'S CORNER

RECOVERY PROTOCOLS AFTER HEAVY LOADING OF THE POSTERIOR CHAIN

BY: CAL DIETZ

Inversion is a recovery method that helps by decompressing the spinal column and elongating the spinal discs. There is also some evidence that it can help with CNS recovery by decreasing the amount of time it takes an athlete to return to a parasympathetic state. This proves to be especially important during phases of intense, heavy, posterior chain loading. The following protocols can be performed on either an inversion table or a glute ham machine. In all cases, the key points are to make sure you relax your mouth and tongue, and focus on taking deep belly breaths in through your nose and out through your mouth. This method was first brought to my attention by Dr. Michael Yessis.

1) Used for spinal de-loading. (Total time = 5min)

- 5 minutes of continuous inversion

2) Used for CNS recovery. (Total time = 7—9min)

- 1 minute inverted
- 30 to 60 upright
- 1 minute inverted
- 30 to 60 upright
- 1 minute inverted
- 30 to 60 upright
- 1 minute inverted
- 30 to 60 upright
- 1 minute inverted

3) Used for CNS recovery. (Total time = 7—9min)

- 1 minute [Glute ham hang](#)
- 30 to 60 seconds [Laying Wall Shakes](#)
- 1 minute [Glute ham hang](#)
- 30 to 60 seconds [Laying Wall Shakes](#)
- 1 minute [Glute ham hang](#)
- 30 to 60 seconds [Laying Wall Shakes](#)
- 1 minute [Glute ham hang](#)
- 30 to 60 seconds [Laying Wall Shakes](#)
- 1 minute [Glute ham hang](#)

6.9: FRIDAY, LOW INTENSITY (SPORT-SPECIFIC TIME: ABOVE IDEAL)

LOADING

Below is a section from the loading table showing exclusively the loading variables and set durations applied on Friday. Remember, the loads and times don't change during the block. The emphasis is placed on the athlete performing more repetitions (high quality work) within the same parameters.

TABLE 6.10: FRIDAY LOADING (ABOVE IDEAL TIME)			
PARAMETER	APPLIED FOR SPORT-SPECIFIC PEAKING	SET DURATION (SECONDS)	LOAD
STRENGTH SPEED	<ul style="list-style-type: none"> • SHOT PUT • FOOTBALL LINEMEN • VOLLEYBALL 	7	25-30%
SPEED STRENGTH	<ul style="list-style-type: none"> • FOOTBALL SKILL PLAYERS • BASEBALL • SOFTBALL • 100-M SPINTER 	10	
STRENGTH ENDURANCE	<ul style="list-style-type: none"> • HOCKEY • BASKETBALL 	17	
ENDURANCE STRENGTH	<ul style="list-style-type: none"> • SOCCER • MEN'S/WOMEN'S LACROSSE • SWIMMING 50-200 M 	32	
ENDURANCE (MODERATE)	<ul style="list-style-type: none"> • SWIMMING 200 M+ • 400-M RUNNER 	40	
ENDURANCE (LONG)	<ul style="list-style-type: none"> • 800-M+ RUNNER • DISTANCE SWIMMER • ROWING 	47	

WORKOUT

Below, you will find Friday's workout for the three-day below 55 percent high velocity peaking block. Coaching points with their respective hyperlinks to the exercises are in the right-hand column.

BLOCK FIVE, FRIDAY

100%	FRIDAY				
		REPS	LOAD	SETS	NOTES
575	Hex Deadlift	T	115 - 145	2	0:0:0:0:5:10
	PW/ 15 Rest BB			EU	ISO
	Delt BO OH Reb Drop	T	#N/A .. #N/A	2	0:0:0:0:10:10
	PW/ 15 Rest BB				
	Calf Raises	T		2	0:0:0:0:10:10
	Squat Drop Jump	T	#N/A .. #N/A	2	0:0:0:0:10:10
	PW/ 15 Rest BB				
	OC Ball Grion Squeeze	T	#N/A .. #N/A	2	0:0:0:0:10:10
		OC			
	BAL SNGL LG SQ	T		2	0:0:0:0:10:10
575	Hex Deadlift	T	290 - 315	3	0:0:0:0:10:10
	Pair w/				
	OC Ball Grion Squeeze	T	#N/A .. #N/A	3	0:0:0:0:10:10
	Pair w/				
105	DB BO Row	T	55 - 60	3	0:0:0:0:10:10
300	BENCH PRESS	5,3	150 - 200	1,1	0:0:0:0:10:10
	Pair w/				
	Med Ball Pass	3	#N/A .. #N/A	2	one arm
		OC			
105	DB BENCH	T	55 - 60	2	0:0:0:0:10:10
105	DB BENCH	T	55 - 60	2	0:0:0:0:10:10
	Pair w/	OC			
500	Glute Bar Lift	T	250 - 275	3	0:0:0:0:10:10
	Pair w/	OC			
	Delt BO Lat Reb Drop	T		3	0:0:0:0:10:10
	Tri Press Band ASFM	T	#N/A .. #N/A	2	
	Pair w/				
	Curl Band ASFM	T	#N/A .. #N/A	2	
	Pair w/				
	STR Leg OC Glute Lifts	T		2	
	Pair w/				
	GH HANG	120S		1	Relax Mouth
	Pair w/				
	Rollers Quads & Back	120S		1	
	Pair w/				
	LAYING WALL SHAKES	120S		1	Relax Mouth

COACHING POINTS AND EXERCISE TUTORIAL

Box 1

-This hex deadlift is a 5 second isometric in the advantageous position, pulling against the fixed rack with slightly bent knees
-The delt BO OH reb drop improves reactive ability of the shoulder

-For the calf raises, cue the athlete to push through the big toe and use a slight knee bend

[Hex Deadlift](#); [Delt BO OH Reb Drop](#); [Calf Raises](#)

Box 2

-For the squat drop jump, pull into an athletic jumping position forcefully; reverse direction immediately upon impact

-With a Swiss ball between the knees, powerfully contract and relax the groin for the prescribed time

-The balance single leg squat is a controlled movement in which the athlete lowers the unsupported foot towards the ground, keeping the foot on the bench flat

[Squat Drop Jump](#); [OC Ball Groin Squeeze](#); [BAL SNGL LG SQ](#)

Box 3

-In the standard hex deadlift, keep the butt down and chest up, completing as many reps as possible in the prescribed time

-Perform the DB BO row through a full range of motion

[Hex Deadlift](#); [OC Ball Groin Squeeze](#); [DB BO Row](#)

Box 4

-The bench press and med ball pass are performed as described on previous days

-Perform the DB Bench through a full range of motion

[Bench Press](#); [Med Ball Chest Pass](#); [DB Bench](#)

Box 5

-The glute bar lift is performed as an oscillatory movement near the top of the lift to contract and relax the glutes as fast as possible

-The delt BO lat reb Drop is designed to improve the explosiveness of the shoulder

[DB Bench](#); [Glute Bar Lift](#); [Delt BO Lat Reb Drop](#)

Box 6

-The tricep band press ASFM is performed as a press and curl in which the athlete presses the band down (palm down) and curling the band (palm up) to the start

-The Curl band ASFM and straight leg OC glute Lifts are performed as described on previous days

[TriPress Band ASFM](#); [Curl Band ASFM](#); [STR Leg OC Glute Lifts](#)

Box 8

[GH HANG](#); [Rollers Quads and Back](#); [Laying Wall Shakes](#)

6.10: THREE-DAY HIGH VELOCITY PEAKING PROGRAM OVERVIEW

The importance of choosing the correct exercises along with the proper methods and parameters in their application is clear. Choosing specialized developmental exercises closely related to the movement patterns and neural firing rates that an athlete will find in competition is imperative if you want to see gains from the weight room transfer to the field. This last phase, the peaking phase, is the most important part of an athlete's training year and the most difficult part of a coach's job. Peaking an athlete isn't an exact science. Yes, scientists have created great methods and parameters that definitely help athletes. However, every athlete is unique. What is an ideal method for peaking one athlete or type of athlete is likely detrimental to another. While the criteria of dynamic correspondence serve as great guides, it often takes a coach years of experience working with thousands of athletes to truly find what works best to draw out their maximum potential.

To help speed up this process and give you a jump on other coaches and athletes, I have added several peaking programs for different sports (chapter 6.11). These are programs I've developed over the years using specialized exercises that I've found to have a very high correlation (r) to the respective sport. Below, you will find tables that give the general overview and outline the lifting and conditioning parameters for the three-day high velocity peaking phase (tables 6.11 and 6.12).

TABLE 6.11: UNDULATING BLOCK MODEL							
TRAINING WEEK:		DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
THREE-DAY MODEL	FOCUS	TOTAL BODY	OFF	TOTAL BODY	OFF	TOTAL BODY	OFF
	LOAD	35-40%		45-55%		25-30%	
	MEANS APPLIED	AFSM		AFSM		AFSM	

TABLE 6.12: BELOW 55 PERCENT THREE-DAY CONDITIONING MODEL			
TRAINING DAY	CONDITIONING GOAL	SPECIAL INSTRUCTIONS	EXAMPLE WORKOUT
DAY 1	Long Sprints or Short Sprints with Reduced Rest (Speed Conditioning)	<ul style="list-style-type: none"> • Sprints over 15 seconds or • Sprints under 10 seconds and recovery under 20 seconds. 	<ul style="list-style-type: none"> • High Quality Lactic Anaerobic Power Training Builder • Metabolic Injury Prevention Runs
DAY 2	Short Sprints (High Quality Speed)	<ul style="list-style-type: none"> • Sprints under 10 seconds • Full recovery; rest 90–120 seconds. 	<ul style="list-style-type: none"> • Alactic High Quality Workout • Flying 60s • 16-Week Short Sprint Workouts • Cone Agility
DAY 3	Longer Sprints or Continuous Running (Oxidative Conditioning)	This day is purely work capacity focused.	<ul style="list-style-type: none"> • Aerobic Work Capacity Training Builder • Game Speed Conditioning • Bike Conditioning • Trash Ball

Be sure to notice in the programs that as the metabolic and neural demands of a sport change, the timed parameters of the exercises—not just the exercises—change as well. It doesn't do a lineman any good to perform sets over twenty seconds. Their plays are completed in 1–3 seconds. Below are two hyperlinks to a conference talk I gave at the University of Richmond in 2011, about my high velocity peaking method. It will serve as a great review, as well as give some additional insights into how to peak your athletes.

[**HIGH VELOCITY PEAKING METHODS AND TECHNIQUES IN SPORT SPECIFICITY: PART I**](#)

[**HIGH VELOCITY PEAKING METHODS AND TECHNIQUES IN SPORT SPECIFICITY: PART II**](#)

BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR GENERAL ATHLETE

MONDAY				WEDNESDAY				FRIDAY						
%	REFS	LOAD	SETS	NOTES	%	REFS	LOAD	SETS	NOTES	%	REFS	LOAD	SETS	NOTES
100	T	Hex Deadlift	2	0.0:0.0:5:10	575	T	Hex Deadlift	2	0.0:0.0:5:10	100	T	Hex Deadlift	2	0.0:0.0:5:10
	EU	PW/15 Rest BB	EU	ISO		EU	PW/40 Rest BB	2	#N/A		EU	PW/15 Rest BB	2	EU ISO
	EDT	Cpress Ext Rotary Band	2	0.0:0.0:7:10		EU	Cpress Ext Rotary Band	2	0.0:0.0:5:10		EU	Del BO OH Reb Drop	2	0.0:0.0:10:10
	EDT	PW/15 Rest BB	Each side			EU	PW/40 Rest BB	2	0.0:0.0:5:10		EU	PW/15 Rest BB	2	0.0:0.0:10:10
	T	Ankle Band Work	2	0.0:0.0:7:10		EU	Calf Raises	2	0.0:0.0:5:10		EU	Calf Raises	2	0.0:0.0:10:10
	CIT	Squat Drop Jump	2x - Tendr			EU	Squat Drop Jump	2	0.0:0.0:5:10		EU	Squat Drop Jump	2	0.0:0.0:10:10
	EU	PW/15 Rest BB	EU	Set Drop off		ED	PW/40 Rest BB	EU			EU	PW/15 Rest BB	2	0.0:0.0:10:10
	6	4 way neck	2			T	OC Ball Grn Squeeze	2	0.0:0.0:5:10		T	OC Ball Grn Squeeze	2	0.0:0.0:10:10
	EU	SL Leg Press	2	Reactive		EU	Hex Deadlift	EU	Reactive		OC	BAL SNGL LG SQ	2	0.0:0.0:10:10
375	T	SL Leg Press	2	0.0:0.0:7:10	575	T	Hex Deadlift	2	0.0:0.0:5:10	575	T	Hex Deadlift	2	0.0:0.0:10:10
375	T	SL Leg Press	3	0.0:0.0:7:10	575	T	Hex Deadlift	3	Reactive	575	T	Hex Deadlift	3	0.0:0.0:10:10
	EU	PW/30 Rest BB	EU			ED	PW/40 Rest BB	EU	0.0:0.0:5:10		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	EU	Hip Flex Prone OC CL	3	0.0:0.0:7:10		T	Hip Flex Prone oc	3	0.0:0.0:5:10		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	EDT	PW/30 Rest BB	EU	OC-D		T	PW/40 Rest BB	EU	0.0:0.0:5:10		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	EU	Med Ball Pass	2	ONE ARM		T	DB BO Row	3	0.0:0.0:5:10		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	EU	PW/30 Rest BB	EU	OC-D		T	BENCH PRESS	5.3 150 - 200 1.1			Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
105	T	DB BENCH	2	0.0:0.0:7:10	105	T	DB BO Row	3	0.0:0.0:5:10	105	T	DB BO Row	3	0.0:0.0:10:10
105	T	DB BENCH	2	0.0:0.0:7:10	105	T	BENCH PRESS	5.3 150 - 200 1.1		105	T	DB BO Row	3	0.0:0.0:10:10
	EU	PW/30 Rest BB	EU	oc-D		EU	PW/40 Rest BB	EU	ED		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	T	GH HYPR Incline	3	0.0:0.0:7:10	500	T	Glute Bar Lift	3	0.0:0.0:5:10	500	T	Glute Bar Lift	3	0.0:0.0:10:10
	EU	PW/30 Rest BB	EU	OC-A		EU	PW/40 Rest BB	EU			Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
38	T	DB Side Lat Raise	3	OC-D		T	Del BO Lat Reb Drop	3	0.0:0.0:5:10		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	EU	Band Tricep Extension	2	0.0:0.0:7:10		T	TriPPress Band ASFM	2	0.0:0.0:5:10		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	EDT	PW/30 Rest BB	EU	oc-D		EU	PW/40 Rest BB	EU	2		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	EU	Bicep shock curls	2	0.0:0.0:7:10		EU	Cur Band ASFM	2	oc-A		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	EDT	PW/30 Rest BB	EU			EDT	PW/40 Rest BB	EU	ED		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	T	OC Ball Grn Squeeze	2	0.0:0.0:7:10		T	STR Leg OC Glute Lifts	2	0.0:0.0:5:10		Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
						T	Pair w/	#N/A			Pair w/	OC Ball Grn Squeeze	3	0.0:0.0:10:10
	120S	GH HANG	1	Relax Mouth		120S	GH HANG	1	Relax Mouth		120S	GH HANG	1	Relax Mouth
		Pair w/				Pair w/	Pair w/				Pair w/	Pair w/		
	120S	Rollers Glutes & Hams	1	#REF		120S	Rollers Glutes & Back	1	#REF		120S	Rollers Glutes & Back	1	
		Pair w/				Pair w/	Pair w/				Pair w/	Pair w/		
	120S	LAYING WALL SHAKES	1	Relax Mouth		120S	LAYING WALL SHAKES	1	Relax Mouth		120S	LAYING WALL SHAKES	1	Relax Mouth

BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR GENERAL ATHLETE HYPERLINKS

Day 1	Exercise Hyperlink	Day 2	Exercise Hyperlink	Day 3	Exercise Hyperlink
Box 1	Hex Deadlift Cpress Ext Rot Rev Band Ankle Band Work	Box 1	Hex Deadlift Cpress Ext Rot rev Band Calf Raises	Box 1	Hex Deadlift Delt BO OH Reb Drop Calf Raises
Box 2	Squat Drop Jump 4 way neck SL Leg Press	Box 2	Squat Drop Jump OC Ball Groin Squeeze Hex Deadlift	Box 2	Squat Drop Jump OC Ball Groin Squeeze BAL SNGL LG SQ
Box 3	SL Leg Press Hip Flex OC Prone CL DB BO Row	Box 3	Hex Deadlift Hip Flex Prone OC DB BO Row	Box 3	Hex Deadlift OC Ball Groin Squeeze DB BO Row
Box 4	Cpress Int Rot Band OC Med Ball Chest Pass DB Bench	Box 4	Bench Press Med Ball Chest Pass Bench Press	Box 4	Bench Press Med Ball Chest Pass DB Bench
Box 5	DB Bench GH HYPR Incline DB Side Lat Raise	Box 5	Bench Press Glute Bar Lift Delt BO Lat Reb Drop	Box 5	DB Bench Glute Bar Lift Delt BO Lat Reb Drop
Box 6	Band Tricep Extension Bicep Shock Curls OC Ball Groin Squeeze	Box 6	TriPress Band ASFM STR Leg OC Glute Lifts	Box 6	TriPress Band ASFM Curl Band AFSM STR Leg OC Glute Lifts
Box 7		Box 7		Box 7	
Box 8	GH HANG Rollers Glutes and Hams Laying Relaxation	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes

6.11: SPORT SPECIFIC PEAKING PROGRAMS

Below you will find six specialized peaking programs to enhance the training of:

- 1) Football linemen (p. 340)
- 2) Football skill players (backs and receivers) (p. 342)
- 3) Baseball position players (p. 344)
- 4) Hockey players (p. 346)
- 5) Swimmers (200–400 meter) (p. 348)
- 6) Volleyball players (p. 350)

**BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR FOOTBALL
(LINEMAN) HYPERLINKS**

Day 1	Exercise Hyperlink	Day 2	Exercise Hyperlink	Day 3	Exercise Hyperlink
Box 1	Hex Deadlift Cpress Ext Rot Rev Band Ankle Band Work	Box 1	Hex Deadlift Cpress Ext Rot rev Band Calf Raises	Box 1	Hex Deadlift Cpress Ext Rot rev Band Calf Raises
Box 2	Squat Drop Jump 4-way Neck OC Ball Single Leg Squat	Box 2	Squat Drop Jump Hip Flex OC Prone CL SL Leg Press	Box 2	Squat Drop Jump Hip Flex OC Prone CL SL Hex Deadlift
Box 3	Single Leg Squat Hip Flex Prone OC DB BO Row	Box 3	SL Leg Press OC Ball Groin Squeeze DB BO Row	Box 3	SL Hex Deadlift OC Ball Groin Squeeze DB BO Row
Box 4	Cpress Int Rot Band OC Med Ball Chest Pass DB Bench	Box 4	Bench Press Med Ball Chest Pass Bench Press	Box 4	Bench Press Med Ball Chest Pass Bench Press
Box 5	DB Bench GH HYPH Incline Inc Delt Lat Reb Drop	Box 5	Bench Press Glute Bar Lift Delt BO Lat Reb Drop	Box 5	Bench Press Glute Bar Lift Delt BO Lat Reb Drop
Box 6	Band Tricep Extension Bicep Shock Curls OC Ball Groin Squeeze	Box 6	TriPress Band ASFM Curl Band AFSM STR Leg OC Glute Lifts	Box 6	TriPress Band ASFM Curl Band AFSM STR Leg OC Glute Lifts
Box 7		Box 7		Box 7	
Box 8	GH HANG Rollers Glutes and Hams Laying Relaxation	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes

**BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR FOOTBALL
(SKILL PLAYER) HYPERLINKS**

Day 1	Exercise Hyperlink	Day 2	Exercise Hyperlink	Day 3	Exercise Hyperlink
Box 1	Hex Deadlift Cpress Ext Rot Rev Band Ankle Band Work	Box 1	Hex Deadlift Cpress Ext Rot rev Band Calf Raises	Box 1	Hex Deadlift Cpress Ext Rot rev Band Calf Raises
Box 2	Squat Drop Jump 4-way Neck OC Ball Single Leg Squat	Box 2	Squat Drop Jump Hip Flex OC Prone CL SL Leg Press	Box 2	Squat Drop Jump Hip Flex OC Prone CL SL Hex Deadlift
Box 3	Single Leg Squat Hip Flex Prone OC DB BO Row	Box 3	SL Leg Press OC Ball Groin Squeeze DB BO Row	Box 3	SL Hex Deadlift OC Ball Groin Squeeze DB BO Row
Box 4	Cpress Int Rot Band OC Med Ball Chest Pass DB Bench	Box 4	Bench Press Med Ball Chest Pass Bench Press	Box 4	Bench Press Med Ball Chest Pass Bench Press
Box 5	DB Bench GH HYPH Incline Inc Delt Lat Reb Drop	Box 5	Bench Press Glute Bar Lift Delt BO Lat Reb Drop	Box 5	Bench Press Glute Bar Lift Delt BO Lat Reb Drop
Box 6	Band Tricep Extension Bicep Shock Curls OC Ball Groin Squeeze	Box 6	TriPress Band ASFM Curl Band AFSM STR Leg OC Glute Lifts	Box 6	TriPress Band ASFM Curl Band AFSM STR Leg OC Glute Lifts
Box 7		Box 7		Box 7	
Box 8	GH HANG Rollers Glutes and Hams Laying Relaxation	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes

BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR BASEBALL (POSITION)

%	Day 1	REFS	LOAD	SETS	NOTES
100	500 Sport Back Squat	5,3	250 - 335	1,1	1 Pw/ Cuban F8
	No Rest/B-Breath	EU			1 band Rollaz
	500 Sport Back Squat	3	390 - 400	1	pw/cuban f8
	No Rest/B-Breath	EU			1 band Rollaz
	1/2 SQ JMP Weighted	T		3	0:00:07:10
	Hurdle Hop	T		3	Pull Down
	15 rest- BB	EU			0:00:07:10
	1/2 SQ JMP Weighted	T		3	0:00:07:10
	15 rest- BB	EU			0:00:07:10
	15 Yard Starts	T		3	
	300 BENCH PRESS	5,3	150 - 200	1,1	Ext Shock
	No Rest/B-Breath	ED			Ext Shock
	Bench Press	3	240	1	coach see
	300 BENCH PRESS	5,3	120 - 135	3	20C-d+1
	One Leg MB Side Toss	5		3	
	25 rest- BB	EU			EDT
	105 DB BO Row	T	40 - 45	3	0:00:07:10
	25 rest- BB	EDT			Elbow wide
	90 90 Jump Twist	T		3	0:00:07:10
	500 Glute Bar Lift	T	200 - 225	3	OC
	25 rest- BB	EU			ED
	Cuban PRSS OC Band	T		3	0:00:07:10
	25 rest- BB	EU			0:00:07:10
	105 DB BO Row	T	40 - 45	3	OC-D
	GH HYPR	T		3	OC-A
	25 rest- BB	ED			0:00:07:10
	OC Ball Gron Squeeze	T		3	0:00:07:10
	25 rest- BB	ED			0:00:07:10
	Plate Pincher	T		3	Each Arm
	75 DB Shoulder Press	T	30 - 35	2	oc-D+1
	25 rest- BB	ED			0:00:07:10
	Hip Flex OC Prone CL	T		2	0:00:07:10
	25 rest- BB	ED			0:00:07:10
	Iso Bi Recip	T		2	0:00:07:10
	Iso Tri Recip	T		2	0:00:07:10
	25 rest- BB	EU			ED
	Iso Bi Recip	T		2	0:00:07:10
	25 rest- BB	EU			0:00:07:10
	Jobs ECC	T		2	0:00:07:10

%	Day 2	REFS	LOAD	SETS	NOTES
100	500 Back Squat	5,3	250 - 335	1,1	
	No Rest/B-Breath	EU			
	500 Back Squat	3	400	1	
	No Rest/B-Breath	EU			
	1/2 SQ JMP Weighted	T		3	0:00:05:10
	Siding SQ Drop Jump	T		3	0:00:05:10
	25 rest- BB	EU			EUA
	Def BO Lat Reb Drop	T		3	0:00:05:10
	25 rest- BB	ED			0:00:05:10
	Plate Pincher	T		3	
	300 BENCH PRESS	5,3	150 - 200	1,1	
	No Rest/B-Breath	ED			
	Bench Press	3	235 - 240	1	
	No Rest/B-Breath	EU			0:00:05:10
	300 BENCH PRESS	T	150 - 165	3	
	Med Ball Chest Pass	5		3	One Arm
	25 rest- BB	EU			EUA
	105 DB BO Row	T	55 - 60	3	Elbow wide
	25 rest- BB	EU			0:00:05:10
	Ball Pike Drop	T		3	Drops
	Lunge OC Hops	T		3	Each Leg
	Pair w/	EU			EUA
	Def BO OH Reb Drop	T		3	0:00:05:10
	Pair w/	EUA			0:00:05:10
	105 DB BO Row	T	55 - 60	3	oc-D
	GH HYPR	T		3	oc-A
	Pair w/	ED			0:00:05:10
	OC Ball Gron Squeeze	T		3	0:00:05:10
	Pair w/	ED			0:00:05:10
	Plate Pincher	T		3	Each Arm
	Inc Def Lat Reb Drop	T		3	
	25 rest- BB	EU			0:00:05:10
	Russian Switch lunge	T		3	0:00:05:10
	25 rest- BB	ED			0:00:05:10
	75 DB Shoulder Press	T	40 - 40	3	oc-D+1
	Iso Tri Recip	T		2	Bands
	25 rest- BB	EU			0:00:05:10
	Bicep shock curls	T		2	0:00:05:10
	25 rest- BB	EU			0:00:05:10
	Band Lying Int Rot	T		2	OC

%	Day 3	REFS	LOAD	SETS	NOTES
100	225 Single Leg Squat	12	80 - 100	3	OC+1
	15 Rest-BB	EUA			0:00:00:10:10
	Hip Flex OC Prone CL	8		3	0:00:00:10:10
	15 Rest-BB	ED			0:00:00:10:10
	Ball LG Curl	15		3	OC-A
	90 DB INCLINE BENCH	12	30 - 40	3	oc-D+1
	15 Rest-BB	ED			0:00:00:10:10
	1 Arm DB Row Reactive	12		3	Speed
	15 Rest-BB	ED			0:00:00:10:10
	Jobs	6		3	0:00:00:10:10
	Step + Shock Line w/ 10 min	8		3	0:00:00:10:10
	15 Rest-BB	EU			ED
	75 DB Fly	8	40 - 45	3	0:00:00:10:10
	15 Rest-BB	EUA			
	Def Lat Rebound Drop	8		3	0:00:00:10:10
	500 Glute Bar Lift	12	175 - 225	3	0:00:00:10:10
	15 Rest-BB	EU			OC
	Rope Circles	15		3	Each Way
	15 Rest-BB	ED			0:00:00:10:10
	180 Gripper	15	115 - 125	3	0:00:00:10:10
	Iso Bi Recip	8		2	0:00:00:10:10
	15 Rest-BB	ED			EU
	Iso Tri Recip	8		2	0:00:00:10:10
	15 Rest-BB	EDT			
	OC Ball Gron Squeeze	10		2	0:00:00:10:10
	Iso Bi Recip	6		2	0:00:00:10:10
	15 Rest-BB	ED			EUA
	Speed Abduction	8		2	0:00:00:10:10
	15 Rest-BB	EU			0:00:00:10:10
	240 Close Grip Bench	6	60 - 70	2	OC-A
	Lunge OC Hops	12		2	Each Leg
	15 Rest-BB	EUA			0:00:00:10:10
	Rope Vertical	15		2	0:00:00:10:10
	15 Rest-BB	ED			0:00:00:10:10
	GH Spline CL Shock Abz	8		2	Each Side

BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR BASEBALL HYPERLINKS

Day 1	Exercise Hyperlink	Day 2	Exercise Hyperlink	Day 3	Exercise Hyperlink
Box 1	Sport Back Squat Sport Back Squat 1/2 SQ JMP Weighted	Box 1	Back Squat Back Squat 1/2 SQ JMP Weighted	Box 1	Single Leg Squat Hip Flex OC Prone CL Ball LG Curl
Box 2	Hurdle Hop 1/2 SQ JMP Weighted 15 Yard Starts	Box 2	Standing Squat Drop Jump Delt BO Lat Reb Drop Plate Pincher	Box 2	DB Incline Bench 1 Arm DB Row Reactive Jobs
Box 3	Bench Press Bench Press Bench Press	Box 3	Bench Press Bench Press Bench Press	Box 3	Speed Switch Lunge with Ju DB Fly Delt BO Lat Reb Drop
Box 4	One Leg MB Side Toss DB BO Row 90 90 Jump Twist	Box 4	Med Ball Chest Pass DB BO Row Ball Pike Drop	Box 4	Glute Bar Lift Rope Circles Gripper
Box 5	Glute Bar Lift Cuban Press OC Band DB BO Row	Box 5	Lunge OC Hops Delt BO OH Reb Drop DB BO Row	Box 5	Iso Bi Recip Iso Tri Recip OC Ball Groin Squeeze
Box 6	GH HYPR OC Ball Groin Squeeze Plate Pincher	Box 6	GH HYPR OC Ball Groin Squeeze Plate Pincher	Box 6	Iso Bi Recip Speed Abduction Close Grip Bench
Box 7	DB Shoulder Press Hip Flex OC Prone CL Iso Bi Recip	Box 7	Inc Delt Lat Reb Drop Russian Switch Lunge DB Shoulder Press	Box 7	Lunge OC Hops Rope Vertical GH Supine CL Shock Abs
Box 8	Iso Tri Recip Iso Bi Recip Jobs ECC	Box 8	Iso Tri Recip Bicep Shock Curls Band Lying Int Rot	Box 8	

BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR HOCKEY HYPERLINKS

Day 1	Exercise Hyperlink	Day 2	Exercise Hyperlink	Day 3	Exercise Hyperlink
Box 1	Hex Deadlift Cpress Ext Rot Rev Band Ankle Band Work	Box 1	Hex Deadlift Cpress Ext Rot rev Band Calf Raises	Box 1	Hex Deadlift Cpress Ext Rot rev Band Calf Raises
Box 2	Squat Drop Jump 4-way Neck OC Ball SL Leg Press	Box 2	Squat Drop Jump Isometric Ball Groin Squeez Hex Deadlift	Box 2	Squat Drop Jump OC Ball Groin Squeeze Hex Deadlift
Box 3	SL Leg Press Hip Flex OC Prone CL DB BO Row	Box 3	Hex Deadlift Isometric Ball Groin Squeez DB BO Row	Box 3	Hex Deadlift OC Ball Groin Squeeze DB BO Row
Box 4	Cpress Int Rot Band OC Med Ball Chest Pass DB Bench	Box 4	Bench Press Med Ball Chest Pass Bench Press	Box 4	Bench Press Med Ball Chest Pass Bench Press
Box 5	DB Bench GH HYP R Incline Inc Delt Lat Reb Drop	Box 5	Bench Press Glute Bar Lift Delt BO Lat Reb Drop	Box 5	Bench Press Glute Bar Lift Delt BO Lat Reb Drop
Box 6	Band Tricep Extension Bicep Shock Curls OC Ball Groin Squeeze	Box 6	TriPress Band ASFM Curl Band AFSM STR Leg OC Glute Lifts	Box 6	TriPress Band ASFM Curl Band AFSM STR Leg OC Glute Lifts
Box 7		Box 7		Box 7	
Box 8	GH HANG Rollers Glutes and Hams Laying Relaxation	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes

BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR SWIMMING (200-400M)

100%	MONDAY	REPS	LOAD	SETS	NOTES
250	Squat Jump	CIT 140 - 150	2	2x - Tendo	
	PW/ 21 Rest BB	EU		0:0:0.3	
	Dual Action Bar Rows	T 80% - 85%	2	SpeedDrop	
	PW/ 21 Rest BB	EU		0:0:0.32:0	
	Leg Press Calf Raise	T	2	0:0:0.32:0	
575	Hex Deadlift	T	2	0:0:0.5:0	
	PW/ 27 Rest BB	EU		iso	
	Cuban PRSS INC F3	3	2	0:5:0:0	
		ED			
575	Hex Deadlift	T	175 - 200	2	0:0:0.32:0
225	Single Leg Squat	T	70 - 80	3	0:0:0.32:0
	PW/ 32 Rest BB	EU			
	Hip Flex Prone CL	T 80% - 85%	3	0:0:0.32:0	
	PW/ 32 Rest BB	ED			
225	Lat Pull Chin Grip	T	180 - 190	3	0:0:0.32:0
120	DB BENCH	T	35 - 40	3	0:0:0.32:0
	PW/ 32 Rest BB	ED			
	GH HYPR Incline	T 80% - 85%	3	0:0:0.32:0	
	PW/ 32 Rest BB	ED			
75	DB Shoulder Press	T	25 - 25	3	0:0:0.32:0
60	DB Tr Ext	T	20 - 20	2	0:0:0.32:0
225	Lat Pull Down	T	70 - 80	2	0:0:0.32:0
	PW/ 18 Rest BB	EU			
	Band Push Back	T		2	0:0:0.32:0
		EU			
		EU			
		120S 40% -	1		
		EU			
		120S 40% -	1		
		EU			
	GH HANG	120S 80% - 85%	1		
	Pair w/				
	Rollers Quads & Hamz	120S 80% - 85%	1		
	Pair w/				
	LAYING RELAXATION	120S	1		

100%	WEDNESDAY	REPS	LOAD	SETS	NOTES
	Squat Drop Jump	CIT 140 - 150	2	2x - Tendo	
	PW/ 21 Rest BB	EU		0:0:0.10	
	Prono Rings Figure 8	5	2	SpeedDrop	
	PW/ 21 Rest BB	EU		0:0:0.25:0	
	Calf Raises	8	2	2	Knee Bend
575	Hex Deadlift	T	2	0:0:0.5:0	
	PW/ 27 Rest BB	ED		iso	
	Hip Flex Prone OC	T 80% - 85%	2	0:0:0.25:0	
		EU			
750	Leg Press	T	150 - 190	2	0:0:0.25:0
750	Leg Press	T	150 - 190	2	0:0:0.25:0
	PW/ 32 Rest BB	EU			
	Det BO OH Reb Drop	T 80% - 85%	3	0:0:0.25:0	
	PW/ 32 Rest BB	ED			
105	DB BO Row	T	20 - 25	3	oc-D
300	BENCH PRESS	5.3	150 - 200	1.1	
	PW/ 32 Rest BB	ED			
	Inc Det Lat Reb Drop	T 80% - 85%	3	0:0:0.25:0	
	PW/ 32 Rest BB	ED			
300	Bench Press	T	60 - 75	2	0:0:0.25:0
300	BENCH PRESS	T	60 - 75	3	0:0:0.25:0
	PW/ 18 Rest BB	ED			
500	Glute Bar Lift	T	100 - 125	3	0:0:0.25:0
	PW/ 18 Rest BB	ED			
210	DB Shrug	T	65 - 75	3	0:0:0.25:0
240	Dips	T	70 - 85	2	0:0:0.25:0
	PW/ 18 Rest BB	EU			
180	Chin up	T	55 - 65	2	0:0:0.25:0
	PW/ 18 Rest BB	ED			
	Side to Side supine Row	T	2	0:0:0.25:0	
		5	85% - 70%	1	
	Pair w/	EU			
		1	80% - 80%	1	
	Pair w/	EU			
		3	90% - 95%	3	
	GH HANG	120S 80% - 85%	1		
	Pair w/				
	Rollers Quads & Back	120S 80% - 85%	1		
	Pair w/				
	LAYING WALL SHAKES	120S	1		

100%	FRIDAY	REPS	LOAD	SETS	NOTES
250	Squat Jump	T 100 - 115	2	0:0:0.24:0.20	
	PW/ 18 Rest BB	EU		EUA	
	STPLG Iso Glute Lifts	T 80% - 85%	2	0:0:0.0:40:20	
	PW/ 18 Rest BB	EU			
	Calf Raises	T		2	0:0:0.0:40:20
750	Leg Press	T	150 - 190	3	0:0:0.0:40:20
	PW/ 18 Rest BB	EU			
	4 WY BMD Ankle Kick	T 80% - 85%	3	0:0:0.0:10:10	
	PW/ 18 Rest BB	ED			
225	Lat Pull Down	T	45 - 55	3	0:0:0.0:40:20
60	DB Fly	T	35 - 35	3	0:0:0.0:40:20
	PW/ 18 Rest BB	EU			
	Ball LG Curl	T 80% - 85%	3	0:0:0.0:40:20	
	PW/ 18 Rest BB	ED			
38	DB Rear Delt	T	10 - 10	3	0:0:0.0:40:20
	Tricep Band Press	X		2	0:0:0.0:40:20
	PW/ 18 Rest BB	EU			
180	Chin up	X	125 - 145	2	0:0:0.0:40:20
		ED			
		180S 80% -	1		
		180S 80% -	1		
	Pair w/	ED			
		120S 80% -	1		
		EU			
		5	85% - 70%	1	
	Pair w/	EU			
		1	80% - 80%	1	
	Pair w/	EU			
		6	85% - 70%	3	
		ED			
		8	70% - 75%	2	OC
		EU			
	GH HANG	120S 80% - 85%	1		
	Pair w/				
	Rollers Quads & Back	120S 80% - 85%	1		
	Pair w/				
	LAYING WALL SHAKES	120S	1		

**BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR SWIMMING
(200-400M) HYPERLINKS**

Day 1	Exercise Hyperlink	Day 2	Exercise Hyperlink	Day 3	Exercise Hyperlink
Box 1	Squat Jump Dual Action Bar Rows Leg Press Calf Raise	Box 1	Squat Drop Jump Prone Rings Figure 8 Calf Raises	Box 1	Squat Jump STR LG Iso Glute Lifts Calf Raises
Box 2	Hex Deadlift Cuban Press Incline Figure 8 Hex Deadlift	Box 2	Hex Deadlift Hip Flex Prone OC Leg Press	Box 2	Leg Press 4 wy BND Ankle Kick Lat Pull and Press
Box 3	Single Leg Squat Hip Flex Prone CL Lat Pull Chin Grip	Box 3	Leg Press Delt BO OH Reb Drop DB BO Row	Box 3	DB Fly Ball LG Curl DB Rear Delt
Box 4	DB Bench GH HYPR Incline DB Shoulder Press	Box 4	Bench Press Inc Delt Lat Reb Drop Bench Press	Box 4	Tricep Band Press Chin up
Box 5	DB Tri Ext Lat Pull Down Band Push Back	Box 5	Bench Press Glute Bar Lift DB Shrug	Box 5	
Box 6		Box 6	Dips Chin up Side to side supine row	Box 6	
Box 7		Box 7		Box 7	
Box 8	GH HANG Rollers Glutes and Hams Laying Relaxation	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes

BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR VOLLEYBALL

%001	Day one	REFS	LOAD	SETS	NOTES
	Black Burn Series	T	2	0:10:00	
	No Rest/B-Breath	EU			
	Scarecrow	5		2	0:00:07:30
		ED			
	105 DB BENCH	T	30 - 35	3	2OC-4+1
	One Leg MB Side Toss	5		2	
	25 rest- BB	EUA		EDT	
	105 DB BO Row	T	30 - 35	3	0:00:07:30
	25 rest- BB	EDT			Elbow Wide
	90 90 Jump Twist	T		3	0:00:07:30
	Band Push Back	T		2	one Arm
	25 rest- BB	EUA		EDT	0:00:07:30
	Hip Flex OC Prone CL	T		2	0:00:07:30
	25 rest- BB	EDT			0:00:07:30
	Band Lying Int Rot	T		2	OC
	250 SL Hex Deadlift	5,3	125 - 170	1,1	Pwr Cuban F8
	No Rest/B-Breath	EU			I band Rollers
	SL Hex Deadlift	T	- 90	3	
	1/2 SQ JMP Weighted	EU		3	0:00:07:30
	Hurdle Hop	5		3	Pull Down
	15 rest- BB	EU			
	1/2 SQ JMP Weighted	T		3	reactive
	15 rest- BB	EU			0:00:07:30
	15 Yard Starts	T		3	
	45 DB Tr Pro Sup	T	15 - 15	2	oc-D+1
	25 rest- BB	EU		ED	0:00:07:30
	Iso Bi Recip	T		2	0:00:07:30
	25 rest- BB	EU			
	Jobs Ecc	T		2	0:00:07:30
	500 Glute Bar Lift	T	150 - 175	3	OC
	25 rest- BB	EU		ED	0:00:07:30
	CubP:Ext Rot Rev Band	T		3	OC
	25 rest- BB	EDT			0:00:07:30
	105 DB BO Row	T	30 - 35	3	OC-D
	GH HYPR	T		3	oc-A
	25 rest- BB	ED		ED	0:00:07:30
	Iso Ball Grn Squeeze	T		3	OC
	25 rest- BB	ED			0:00:07:30
	Plate Pincher	T		3	Each Arm

%001	Day 2	REFS	LOAD	SETS	NOTES
	Jobs	T		2	0:0:0:0
	No Rest/B-Breath	EU			
	Prone Ring F8	6		2	
		ED			0:00:00:5:10
	90 DB INCLINE BENCH	T	35 - 40	3	OC
	Med Ball Chest Pass	5		3	One Arm
	25 rest- BB	EUA		EDT	
	1 Arm DB Row	T		3	Reactive
	25 rest- BB	ED			0:00:00:5:10
	Pike Abs Strap Drop	T		3	0:00:00:5:10
	Inc Deit Lat Reb Drop	T		2	0:00:00:5:10
	25 rest- BB	EUA		EDT	
	Hip Flex OC Prone CL	T		2	0:00:00:5:10
	25 rest- BB	EU			0:00:00:5:10
	CubP:Ext Rot Rev Band	T		2	oc
	500 Back Squat	5,3	250 - 335	1,1	
	No Rest/B-Breath	EU			
	500 Back Squat	3	390 - 400	1	
	No Rest/B-Breath	EU			
	1/2 SQ JMP Weighted	T		3	0:00:00:5:10
	Siding SQ Drop Jump	T		3	0:00:00:5:10
	25 rest- BB	EU			
	Deit BO Lat Reb Drop	T		3	0:00:00:5:10
	25 rest- BB	ED			0:00:00:5:10
	Plate Pincher	T		3	Each Arm
	Iso Tri Recip	T		2	Band
	25 rest- BB	EU		EDT	0:00:00:5:10
	Iso Bi Recip	T		2	Band
	25 rest- BB	EU			0:00:00:5:10
	Cub P:Ext Rot Rev Band OC	T		2	0:00:00:5:10
	Lunge OC Hops	T		3	Each Leg
	Pair w/	EUA		EU	0:00:00:5:10
	Band Lying Int Rot	T		3	oc-A
	Pair w/	EUA		3	0:00:00:5:10
	105 DB BO Row	T	40 - 45	3	0:00:00:5:10
	GH HYPR	T		3	oc-A
	Pair w/	ED		ED	0:00:00:5:10
	OC Ball Grn Squeeze	T		3	OC
	Pair w/	ED			0:00:00:5:10
	Plate Pincher	T		3	0:00:00:5:10

%001	Day 3	REFS	LOAD	SETS	NOTES
	90 DB INCLINE BENCH	T	25 - 30	3	oc-D+1
	15 Rest-BB	ED			0:00:00:10:00
	1 Arm DB Row Repetive	T		3	0:00:00:10:00
	15 Rest-BB	ED			
	Jobs	T		3	0:00:00:10:00
	Iso Bi Recip	T		3	0:00:00:10:00
		ED		EU	
	Iso Tri Recip	T		2	0:00:00:10:00
	15 Rest-BB	EDT			
	OC Ball Grn Squeeze	T		2	0:00:00:10:00
	225 Single Leg Squat	T	70 - 80	3	OC+1
	15 Rest-BB	EUA		ED	0:00:00:10:00
	Hip Flex OC Prone CL	T		3	0:00:00:10:00
	15 Rest-BB	ED			0:00:00:10:00
	Ball LG Curl	T		3	OC-A
	Iso Bi Recip	8		2	0:00:00:10:00
	15 Rest-BB	ED			
	90 90 Jump Twist	8		2	Each Way
	15 Rest-BB	EUA			0:00:00:10:00
	Iso Tri Recip	6		2	0:00:00:10:00
	Lunge OC Hops	T		3	Each Leg
	15 Rest-BB	EU		ED	0:00:00:10:00
	Reactive Bench Toss	T		3	0:00:00:10:00
	15 Rest-BB	EUA			
	Deit Lat Rebound Drop	T		3	0:00:00:10:00
	500 Glute Bar Lift	T	150 - 175	3	OC
	15 Rest-BB	EU		OC	
	Rope Circles	15		3	0:00:00:10:00
	15 Rest-BB	ED			0:00:00:10:00
	Plate Pincher	15		3	Each Hand
	500 Glute Bar Lift	6		2	0:00:00:10:00
	15 Rest-BB	EUA			
	Rope Vertical	15		2	0:00:00:10:00
	15 Rest-BB	ED			0:00:00:10:00
	GH Suplex CL Shock Abs	8		2	0:00:00:10:00

BLOCK FIVE (3-DAY): HIGH VELOCITY PEAKING FOR VOLLEYBALL HYPERLINKS

Day 1	Exercise Hyperlink	Day 2	Exercise Hyperlink	Day 3	Exercise Hyperlink
Box 1	Black Burn Series Scarecrow DB Bench	Box 1	Jobses Prone Rings Figure 8 DB Incline Bench	Box 1	DB Incline Bench DB BO Row Jobses
Box 2	One Leg MB Side Toss DB BO Row 90 90 Jump Twist	Box 2	Med Ball Chest Pass 1 Arm DB Row Pike Abs Strap Drop	Box 2	Iso Bi Recip Iso Tri Recip OC Ball Groin Squeeze
Box 3	Band Push Back Hip Flex OC Prone CL Band Lying Int Rot	Box 3	Inc Delt Lat Reb Drop Hip Flex OC Prone CL CubPr Ext Rot Rev Band	Box 3	Single Leg Squat Hip Flex OC Prone CL Ball LG Curl
Box 4	SL Hex Deadlift SL Hex Deadlift 1/2 SQ JMP Weighted	Box 4	Back Squat Back Squat 1/2 SQ JMP Weighted	Box 4	Iso Bi Recip 90 90 Jump Twist Iso Tri Recip
Box 5	Hurdle Hop 1/2 SQ JMP Weighted 15 Yard Starts	Box 5	Stnding SQ Drop Jump Delt BO Lat Reb Drop Plate Pincher	Box 5	Lunge OC Hops Reactive Bench Toss Delt BO Lat Reb Drop
Box 6	DB Tri Pro Sup Iso Bi Recip Jobses ECC	Box 6	Iso Tri Recip Iso Bi Recip CubPr In Rot Rev Band	Box 6	Glute Bar Lift Rope Circles Plate Pincher
Box 7	Glute Bar Lift CubPr Ext Rot Rev Band DB BO Row	Box 7	Lunge OC Hops Band Lying Int Rot DB BO Row	Box 7	Speed Switch Lunge with Ju Rope Vertical GH Supine CL Shock Abs
Box 8	GH HYPR Isometric Ball Groin Sque Plate Pincher	Box 8	GH HYPR OC Ball Groin Squeeze Plate Pincher	Box 8	

6.12: BELOW 55 PERCENT TWO-DAY IN-SEASON PROGRAM

Last but not least, table 6.13 shows how to take what you learned about the three-day model and convert it to a two-day in-season program. In table 6.13, day one loading parameters are in white, day two loading parameters are in red, and day three loading parameters are in blue. Remember, whenever athletes are in-season, all their volume work comes from practice. Additional volume in the weight room or through conditioning will likely lead to an overtrained, underperforming athlete. Remember, *don't do any additional conditioning in-season outside of organized practice!*

TABLE 6.13: BELOW 55 PERCENT THREE-DAY VERSUS TWO-DAY IN-SEASON MODEL							
TRAINING WEEK:		DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
THREE-DAY MODEL	FOCUS	TOTAL BODY	OFF	TOTAL BODY	OFF	TOTAL BODY	OFF
	LOAD	35-40%		45-55%		25-30%	
	MEANS APPLIED	AFSM		AFSM		AFSM	
TWO-DAY MODEL	FOCUS	TOTAL BODY	OFF	TOTAL BODY	OFF	OFF	OFF
	LOAD	35-40%		45-55%			
	MEANS APPLIED	AFSM		AFSM			

[TWO-DAY IN SEASON BELOW 55 PERCENT VIDEO](#)

BLOCK FIVE (2-DAY IN-SEASON): HIGH VELOCITY PEAKING GENERAL ATHLETE

MONDAY		REPS	LOAD	SETS	NOTES
100%	575	Hex Deadlift	T 115 - 145	2	0:00:05:10
		PW/ 15 Rest BB	EU		EU ISO
		Cuban PRSS MC FB	5 RWA - RWA	2	
		PW/ 15 Rest BB	EDT		
		Ankle Band Work	8	2	Each Side
		Squat Drop Jump	CT 115 - RWA	2	2x - Tendo
		PW/ 15 Rest BB	EU		See Drop off
		4 way neck	6 RWA - RWA	2	
					Reactive
					Reactive
					Reactive
375		SL Leg Press	T 115 - 130	2	0:00:07:10
375		SL Leg Press	T 115 - 130	3	0:00:07:10
		PW/ 30 Rest BB	EU		
		Hip Flex Prone oc	T 115 - RWA	3	0:00:07:10
		PW/ 30 Rest BB	EDT		OC-D
					OC-D
105		DB BO Row	T 55 - 60	3	0:00:07:10
		Prone Rings Figure 8	8 RWA - RWA	2	
		PW/ 30 Rest BB	EU		
		Med Ball Pass	5 RWA - RWA	2	
		PW/ 30 Rest BB			OC-D
					OC-D
105		DB BENCH	T 30 - 35	2	0:00:07:10
105		DB BENCH	T 30 - 35	2	0:00:07:10
		PW/ 30 Rest BB			OC-D
		GH HYPR Incline	5 RWA - RWA	3	0:00:07:10
		PW/ 30 Rest BB	EU		OC-A
					OC-A
38		DB Side Lat Raise	T 10 - 15	3	7 - OC-D
		Band Tricep Extension	T 115 - RWA	2	0:00:07:10
		PW/ 30 Rest BB	EDT		OC-D
		Bicep shock curls	T 115 - RWA	2	0:00:07:10
		PW/ 30 Rest BB	EDT		
		90 90 Gron ISO Hold	T	2	0:00:07:10
			6 75% - 80%	2	
		GH HANG	120S	1	
		Pair w/			
		Rollers Glutez & Hams	120S RWA - RWA	1	
		Pair w/			
		LAYING RELAXATION	120S	1	

WEDNESDAY		REPS	LOAD	SETS	NOTES
100%	575	Hex Deadlift	T 115 - 145	2	0:00:05:10
		PW/ 15 Rest BB	EU		EU ISO
		Cpress Ext Rot rev Band	T RWA - RWA	2	0:00:05:10
		PW/ 15 Rest BB	EU		
		Calif Raises	8	2	
		Squat Drop Jump	T RWA - RWA	2	0:00:05:10
		PW/ 15 Rest BB	ED		EU
		Iso Ball Gron Squeeze	T RWA - RWA	2	0 5:0 0
					EU Reactive
					Reactive
575		Hex Deadlift	T 175 - 200	2	0:00:05:10
575		Hex Deadlift	T 175 - 200	3	Reactive
		Pair w/	ED		EU 0:00:05:10
		Iso Ball Gron Squeeze	T RWA - RWA	3	0:00:05:10
		Pair w/			EUA
		DB BO Row	T 30 - 35	3	0:00:05:10
105		BENCH PRESS	5.3 150 - 200	1.1	
		Pair w/	EU		ED
		Med Ball Pass	3 RWA - RWA	2	
					OC-D+1
					OC-D+1
300		Bench Press	T 90 - 105	2	0:00:05:10
300		Bench Press	T 90 - 105	2	0:00:05:10
		Pair w/	EU		ED
		Glute Bar Lift	T 150 - 175	3	0:00:05:10
		Pair w/	EU		
		Det BO Lat Reb Drop	T	3	0:00:05:10
		Band Tricep Extension	10 RWA - RWA	2	0:00:05:10
		Pair w/	EU		
120		Bar Curl	T 35 - 40	2	OC-A
		Pair w/	EDT		ED 0:00:05:10
		90 90 Glute ISO Hold	T	2	0:00:05:10
					#N/A
		GH HANG	120S	1	Relax Mouth
		Pair w/			
		Rollers Quads & Back	120S RWA - RWA	1	#REF
		Pair w/			
		LAYING WALL SHAKES	120S	1	Relax Mouth

**BLOCK FIVE (2-DAY IN-SEASON): HIGH VELOCITY
PEAKING FOR GENERAL ATHLETE HYPERLINKS**

Day 1	Exercise Hyperlink	Day 2	Exercise Hyperlink
Box 1	Hex Deadlift Cuban Press Incline Figure 8 Ankle Band Work	Box 1	Hex Deadlift Cpress Ext Rot rev Band Calf Raises
Box 2	Squat Drop Jump 4 way neck SL Leg Press	Box 2	Squat Drop Jump Isometric Ball Groin Squeeze Hex Deadlift
Box 3	SL Leg Press Hip Flex OC Prone CL DB BO Row	Box 3	Hex Deadlift Isometric Ball Groin Squeeze DB BO Row
Box 4	Prone Rings Figure 8 Med Ball Chest Pass DB Bench	Box 4	Bench Press Med Ball Chest Pass Bench Press
Box 5	DB Bench GH HYPR Incline DB Side Lat Raise	Box 5	Bench Press Glute Bar Lift Delt BO Lat Reb Drop
Box 6	Band Tricep Extension Bicep Curl Shock 90 90 Groin ISO Hold	Box 6	Band Tricep Extension Bar Curl 90 90 Glute ISO Hold
Box 7		Box 7	
Box 8	GH HANG Rollers Glutes and Hams Laying Relaxation	Box 8	GH HANG Rollers Quads and Back Laying Wall Shakes

SECTION 7

PUTTING IT ALL TOGETHER

7.1: THE BIG PICTURE

Back in the first chapter, I used the analogy that coaches are mechanics and athletes are the cars they work on. Our goal as mechanics is simple — get the cars to produce as much horsepower as possible, in as short a time as possible. But before coaches can do this proficiently, before they can consider themselves master mechanics, they need to know the tools of the trade and the parts of the car that need to be worked on to improve performance. Do you think that NASCAR mechanics know anything about how to install a plush leather interior? How about installing a 6-disc CD changer? They might have an idea, but I promise you they aren't proficient at it. And why would they be? Neither of those things improve the performance of the car. Their focus is narrow (the engine) and their goal is simple (more power).

Just as master mechanics know their way around an engine, strength coaches must know their way around an athlete. Both must have a solid understanding of how their “vehicles” work, their moving parts, and how to adjust or enhance those parts to improve performance. I hope that this book has given you the tools and methods to confidently go and work with your athletes — a step-by-step guide to sport performance. First, we looked at the importance of stress. We then examined the ideal way in which a coach can maximize the application of stress to optimize performance gains through a modified undulated model. We looked not only at general stress, but the specific ways that the neuromuscular system must be stimulated to promote maximal positive adaptation by the use of triphasic training. And finally, we looked at how coaches could combine all of these parameters in a structured, block template to ensure the continuous adaptation of their athletes through a progressive mesocycle training program.

Now it's time to take what you have learned and view it in a macrocycle, off-season training context. In the pages that follow, you will find tables (7.1—7.4) that give a bird's eye view in the application and sequencing of the means, methods, and parameters you learned throughout *Triphasic Training*. This is all mainly a review. However, seeing it laid out will help you better grasp how you layer the blocks, methods, and parameters on top of each other to optimize training in the varying lengths of off-seasons you encounter.

TABLE 7.1: PROGRESSIVE LOADING VARIABLES FOR TRIPHASIC OFF-SEASON MACROCYCLE						
PHASE	BLOCK	DAY	LOAD	TIME	REPS	SETS
PHASE ONE	BLOCK ONE (ECCENTRIC) 2-3 WEEKS	MONDAY (MEDIUM INTENSITY)	82-87%	5-6 SECONDS	1-3	2-4
		WEDNESDAY (HIGH INTENSITY)	ECCENTRIC MEANS NOT APPLIED; REACTIVE			
		FRIDAY (HIGH VOLUME)	75-80%	6-7 SECONDS	2-4	2-4
	BLOCK TWO (ISOMETRIC) 2-3 WEEKS	MONDAY (MEDIUM INTENSITY)	82-87%	2-3 SECONDS	1-3	4-5
		WEDNESDAY (HIGH INTENSITY)	ISOMETRIC MEANS NOT APPLIED; REACTIVE			
		FRIDAY (HIGH VOLUME)	75-80%	3-4 SECONDS	3-4	4-5
	BLOCK THREE (CONCENTRIC) 2-3 WEEKS	MONDAY (MEDIUM INTENSITY)	82-87%	REACTIVE	2-3	3-4
		WEDNESDAY (HIGH INTENSITY)	90-97%		1	1-4
		FRIDAY (HIGH VOLUME)	75-80%		3-4	3-5
PHASE TWO	BLOCK FOUR 3-4 WEEKS	MONDAY (MEDIUM INTENSITY)	62-70%	REACTIVE	2-3	4-6
		WEDNESDAY (HIGH INTENSITY)	72-80%		1-3	4-5
		FRIDAY (HIGH VOLUME)	75-80%		5-8	4-6
PHASE THREE	BLOCK FIVE (AFSM) 3-5 WEEKS	MONDAY (MEDIUM INTENSITY)	35-40%	IDEAL TIME	PARAMETER BASED ON TIME	3-5
		WEDNESDAY (HIGH INTENSITY)	45-55%	BELOW IDEAL TIME		3-5
		FRIDAY (HIGH VOLUME)	25-30%	ABOVE IDEAL TIME		3-5

TABLE 7.2: PEAKING SCHEDULE FOR ANAEROBIC TEAM SPORTS

STRENGTH RANKING	PERFORMANCE RANKING	12 WEEKS OUT	11 WEEKS OUT	10 WEEKS OUT	9 WEEKS OUT	8 WEEKS OUT	7 WEEKS OUT	6 WEEKS OUT	5 WEEKS OUT	4 WEEKS OUT	3 WEEKS OUT	2 WEEKS OUT	1 WEEK OUT
STRENGTH EMPHASIS FOR SPORTS													
8/10	5/10										92-80%	92-80%	92-80%
SPEED EMPHASIS FOR SPORTS													
5/10	8/10											50-25%	50-25%
5/10	8/10											80-55%	50-25%
6/10	8/10											92-80%	50-25%
4/10	9/10									50-25%		50-25%	50-25%
6/10	8/10									80-55%		50-25%	50-25%
6/10	8/10								80-55%			50-25%	50-25%
6/10	8/10								80-55%		LIGHT	50-25%	50-25%
6/10	8/10								80-55%			50-25%	50-25%
STRENGTH AND SPEED EMPHASIS FOR SPORTS													
6/10	8/10								92-80%	92-80%	80-55%	80-55%	50-25%
5/10	9/10								92-80%	92-80%	80-55%	50-25%	50-25%
7/10	7/10								92-80%	92-80%	80-55%	50-25%	50-25%
7/10	7/10								92-80%	92-80%	80-55%	50-25%	50-25%
8/10	7/10								92-80%	92-80%	80-55%	50-25%	50-25%
8/10	7/10								92-80%	92-80%	80-55%	50-25%	50-25%
8/10	7/10								92-80%	92-80%	80-55%	50-25%	50-25%
8/10	7/10								92-80%	92-80%	80-55%	50-25%	50-25%
8/10	7/10								92-80%	92-80%	80-55%	50-25%	50-25%
8/10	7/10								92-80%	92-80%	80-55%	50-25%	50-25%

Emphasis placed on Eccentric Means
 Emphasis placed on Isometric Means
 Emphasis placed on Concentric/Reactive Means

*The strength and performance rankings are a scale that show where the emphasis in the peaking schedule lies. Remember, a solid foundation of strength is paramount, however only in so much as the athlete can produce in the time limits of their sport. It is up to the coach to know where an athlete is in their training, and determine how much emphasis must be placed on raw strength and how much placed on speed and performance.

TABLE 7.2: PEAKING SCHEDULE FOR ANAEROBIC TEAM SPORTS

STRENGTH RANKING	PERFORMANCE RANKING	12 WEEKS OUT	11 WEEKS OUT	10 WEEKS OUT	9 WEEKS OUT	8 WEEKS OUT	7 WEEKS OUT	6 WEEKS OUT	5 WEEKS OUT	4 WEEKS OUT	3 WEEKS OUT	2 WEEKS OUT	1 WEEK OUT
STRENGTH AND SPEED EMPHASIS FOR SPORTS													
7/10	8/10			92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%
7/10	8/10			92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%	50-25%
7/10	8/10			92-80%	92-80%	80-55%	80-55%	50-25%	50-25%	80-55%	80-55%	50-25%	50-25%
7/10	9/10			92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%	50-25%
7/10	9/10			92-80%	92-80%	80-55%	80-55%	50-25%	92-80%	92-80%	80-55%	50-25%	50-25%
7/10	9/10			92-80%	92-80%	80-55%	80-55%	50-25%	92-80%	92-80%	80-55%	50-25%	50-25%
8/10	8/10			92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	50-25%	50-25%
7/10	9/10		92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	80-55%	50-25%	50-25%	50-25%
7/10	8/10			92-80%	80-55%	80-55%	50-25%	50-25%	92-80%	80-55%	80-55%	50-25%	50-25%
8/10	8/10			92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%
8/10	9/10			92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%
9/10	9/10	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%
9/10	9/10	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%
9/10	10/10	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%
9/10	10/10	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	80-55%	80-55%	50-25%	50-25%
8/10	9/10	92-80%	92-80%	80-55%	80-55%	50-25%	50-25%	92-80%	92-80%	80-55%	80-55%	50-25%	50-25%
7/10	9/10	92-80%	92-80%	80-55%	50-25%	92-80%	80-55%	80-55%	50-25%	92-80%	80-55%	50-25%	50-25%
6/10	10/10	80-55%	80-55%	50-25%	50-25%	80-55%	80-55%	50-25%	50-25%	80-55%	80-55%	50-25%	50-25%

Emphasis placed on Eccentric Means
 Emphasis placed on Isometric Means
 Emphasis placed on Concentric/Reactive Means

*The strength and performance rankings are a scale that show where the emphasis in the peaking schedule lies. Remember, a solid foundation of strength is paramount, however only in so much as the athlete can produce in the time limits of their sport. It is up to the coach to know where an athlete is in their training, and determine how much emphasis must be placed on raw strength and how much placed on speed and performance.

TABLE 7.3: YEAR LONG TRAINING PROGRAM OUTLINE FOR COLLEGIATE FOOTBALL TEAM												
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12	
1/2	1/9	1/16	1/23	1/30	2/6	2/13	2/20	2/27	3/5	3/12	3/19	
WORK CAPACITY @ HOME		80-55%	80-55%	92-80%	92-80%	92-80%	92-80%	92-80%	92-80%	80-55%	BREAK	
WINTER WORKOUTS												
WINTER BREAK/ TRAIN AT HOME												
WEEK 13	WEEK 14	WEEK 15	WEEK 16	WEEK 17	WEEK 18	WEEK 19	WEEK 20	WEEK 21	WEEK 22	WEEK 23	WEEK 24	
3/26	4/2	4/9	4/16	4/23	4/30	5/7	5/14	5/21	5/28	6/4	6/11	
80-55%	80-55%	80-55%	80-55%	80-55%	80-55%	80-55%	80-55%	80-55%	92-80%	92-80%	92-80%	
SPRING BALL						FINALS			HOME TRAINING			SUMMER WORKOUTS
WEEK 25	WEEK 26	WEEK 27	WEEK 28	WEEK 29	WEEK 30	WEEK 31	WEEK 32	WEEK 33	WEEK 34	WEEK 35	WEEK 36	
6/18	6/25	7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	
92-80%	92-80%	92-80%	80-55%	80-55%	50-25%	50-25%	65-40%	65-40%	65-40%	65-40%	65-40%	
SUMMER WORKOUTS												
TRAINING CAMP												
WEEK 37	WEEK 38	WEEK 39	WEEK 40	WEEK 41	WEEK 42	WEEK 43	WEEK 44	WEEK 45	WEEK 46	WEEK 47	WEEK 48	
9/10	9/17	9/24	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	
80-55%	80-55%	80-55%	50-25%	50-25%	80-55%	80-55%	50-25%	50-25%	50-25%	50-25%	80-55%	
2012 FOOTBALL SEASON												
WEEK 49	WEEK 50	WEEK 51	WEEK 52									
12/3	12/10	12/17	12/24									
80-55%	50-25%	50-25%	50-25%									
BOWL PRACTICE												

	EMPHASIS PLACED ON ECCENTRIC MEANS
	EMPHASIS PLACED ON ISOMETRIC MEANS
	EMPHASIS PLACED ON CONCENTRIC/REACTIVE MEANS
	EMPHASIS PLACED ON PEAKING/AFSM MEANS

TABLE 7.4: POSSIBLE VARIATIONS FOR EXERCISE SEQUENCING					
TRAINING PHASE	PHASE ONE: ABOVE 80% (HIGH FORCE AT LOW VELOCITY)			PHASE TWO: 80-55% (HIGH FORCE AT HIGH VELOCITY)	PHASE THREE: BELOW 55% (HIGH VELOCITY PEAKING)
BLOCK	BLOCK ONE	BLOCK TWO	BLOCK THREE	BLOCK FOUR	BLOCK FIVE
BACK SQUAT	BACK SQUAT ECCENTRIC	BACK SQUAT ISOMETRIC	BACK SQUAT WITH CHAINS	BACK SQUAT	BACK SQUAT WITH BANDS
	BACK SQUAT WEIGHT RELEASERS	BACK SQUAT ISOMETRIC	BACK SQUAT WITH BANDS	BACK SQUAT	BACK SQUAT WITH BANDS
	BACK SQUAT WEIGHT RELEASERS	BACK SQUAT WITH PAUSE	BACK SQUAT WITH CHAINS	BACK SQUAT	SQUAT JUMP WITH WEIGHT
SINGLE LEG SQUAT	SINGLE LEG DUMBBELL SQUAT ECCENTRIC	SINGLE LEG DUMBBELL SQUAT PAUSE	SINGLE LEG DUMBBELL SQUAT OSCILLATORY	SINGLE LEG DUMBBELL SQUAT DROP	SINGLE LEG DUMBBELL REACTIVE SQUAT
	SINGLE LEG DUMBBELL SQUAT ECCENTRIC	SINGLE LEG DUMBBELL SQUAT PAUSE	SINGLE LEG DUMBBELL SQUAT DROP	SINGLE LEG DUMBBELL REACTIVE SQUAT	SINGLE LEG DUMBBELL SQUAT OSCILLATORY
	SINGLE LEG DUMBBELL SQUAT ECCENTRIC	SINGLE LEG DUMBBELL SQUAT PAUSE	SINGLE LEG DUMBBELL SQUAT OSCILLATORY	SINGLE LEG DUMBBELL SQUAT 2POC	SINGLE LEG DUMBBELL REACTIVE SQUAT
FRONT SQUAT	FRONT SQUAT ECCENTRIC	FRONT SQUAT ISOMETRIC	FRONT SQUAT	DUMBBELL SINGLE LEG FRONT SQUAT REACTIVE	DUMBBELL SINGLE LEG FRONT SQUAT OSCILLATORY REACTIVE
LUNGE	DUMBBELL WALKING LUNGE WITH PAUSE	DUMBBELL WALKING LUNGE	DUMBBELL WALKING LUNGE SWITCH	WALKING LUNGE JUMPS	WALKING DROP LUNGE JUMPS
	WALKING LUNGE WITH BAND	WALKING BAND LUNGE JUMPS	WALKING DROP BAND LUNGE JUMP	BOX DROP LUNGE	BOX DROP REACTIVE LUNGE JUMP

TABLE 7.4: POSSIBLE VARIATIONS FOR EXERCISE SEQUENCING					
TRAINING PHASE	PHASE ONE: ABOVE 80% (HIGH FORCE AT LOW VELOCITY)			PHASE TWO: 80-55% (HIGH FORCE AT HIGH VELOCITY)	PHASE THREE: BELOW 55% (HIGH VELOCITY PEAKING)
BLOCK	BLOCK ONE	BLOCK TWO	BLOCK THREE	BLOCK FOUR	BLOCK FIVE
	DUMBBELL WALKING LUNGE WITH PAUSE	DUMBBELL WALKING LUNGE	DUMBBELL WALKING LUNGE SWITCH	SPEED SWITCH JUMP LUNGE	SPEED CYCLE JUMP LUNGE
RDL	RDL DUMBBELL ECCENTRIC	RDL DUMBBELL ISOMETRIC	RDL DUMBBELL	RDL DUMBBELL OSCILLATORY	RDL DUMBBELL SINGLE LEG BENCH HOP
	IN LINE RDL ECCENTRICS	IN LINE RDL ISOMETRIC	IN LINE RDL	RDL DUMBBELL OSCILLATORY	RDL DUMBBELL SINGLE LEG BENCH HOP
	RDL ECCENTRIC	RDL ISOMETRIC	RDL	IN LINE RDL	RDL OSCILLATORY
LEG PRESS	LEG PRESS SINGLE LEG ECCENTRIC	LEG PRESS SINGLE LEG ISOMETRIC	SINGLE LEG PRESS	LEG PRESS SINGLE LEG DROP PAUSE	LEG PRESS SINGLE LEG REACTIVE
GLUTE HAM	ECCENTRIC GLUTE HAM	GLUTE HAM HYPER	GLUTE HAM HYPER	SPEED GLUTE HAM DROP	GLUTE HAM OC ADVANTAGE POSITION
HIP FLEXOR	HIP FLEXOR ECCENTRIC PRONE	HIP FLEXOR ISOMETRIC PULL	HIP FLEXOR PRONE CONTRALATERAL	HIP FLEXOR PRONE OC CONTRALATERAL	HIP FLEXOR SPEED SWITCH LUNGE
	HIP FLEXOR PRONE ECCENTRIC CONTRALATERAL	HIP FLEXOR PRONE ISOMETRIC CONTRALATERAL	HIP FLEXOR PRONE CONTRALATERAL	HIP FLEXOR PRONE OC CONTRALATERAL	HIP FLEXOR SPEED SWITCH LUNGE
PLYOS	SWITCH LUNGE PAUSE SAND BAG	SWITCH LUNGE WITH JUMP	SWITCH JUMP LUNGE REACTIVE	LUNGE DROP REACTIVE JUMP	BOX DROP REACTIVE LUNGE JUMP
	SQUAT JUMP PAUSE	SQUAT DROP PAUSE JUMP	SQUAT DROP JUMP	ACCELERATED BAND SQUAT JUMP PAUSE	ACCELERATED BAND SQUAT JUMP

7.3: WRAP-UP

For a long time I thought it would be easy to come up with an ending for this book. But, odd as it may seem, the more I thought about how I wanted to bring this all to a close, the further away I felt I got from coming up with a good conclusion. Then it dawned on me why a conclusion is so elusive — I was trying to bring closure to something that is continuous. Sure, this is the end of the book in a physical sense, but from a philosophical perspective it is only the beginning. For most of you, this has been your first exposure to triphasic training. For others, you may have been familiar with the basic principles but were shown a new approach to their application, or had a “I never thought of it that way” moment. What all of you will hopefully take away from this book are new ideas and methods to try with your athletes. This book is only the starting point. The real learning will begin when you walk into the gym and start using what you found in this book.

I have learned quite a bit as well. This book has forced me to reexamine my own methods, to truly look at and question my own principles and see if I still value them as I have in the past. We all get stuck in mental ruts. We form certain paths of thinking that, after awhile, are hard to get out of. And while it is good to be rooted in beliefs, it can be detrimental if those roots prevent you from seeing and changing to a better path. I believe that discovery and innovation in the world of strength and conditioning are the reckless abandonment of assumed facts in the pursuit of better training methods. Don't take that to mean that we throw the baby out with the bath water, but I definitely throw out the bathwater regularly to clear the way for new, fresh ideas. Remember, science is never fully proven. Science simply shows associations between two variables. Don't ever be afraid to challenge those associations.

In that spirit I have decided to leave you with two example programs of my latest triphasic training method. I don't even have a name for it yet, but it is the culmination of the most advanced training ideals and methodologies I have seen and learned over the past seventeen years of coaching. It is without question the most advanced method I have ever seen and has shown amazing results with my athletes. Look at it. Question it. Think about it. But most of all, try it! How else would you end a book about applied sport performance training?

ADVANCED TRIPHASIC (3-DAY): CONCENTRIC PHASE

%100	MONDAY				WEDNESDAY				FRIDAY					
	REFS	LOAD	SETS	NOTES	REFS	LOAD	SETS	NOTES	REFS	LOAD	SETS	NOTES		
250	Squat Jump	CIT 140 - 150	2	2x - Tendo	Vertmax DS 2 Band	CIT	2	2x - Tendo	750	Leg Press	T 490 - 525	4	0.0.0.0.15:20	
	PWJ 30 Rest BB	EU		EU	Pair w/			EU	Pair w/			EU		
	CP Ext Rotrev Band OC	T	2	0.0.0.0.7:10	Tea Cup Stuff	5	2		250	Squat Jump	T 165 - 175	4	0.0.0.0.15:20	
	PWJ 30 Rest BB	ED		Each Side	Pair w/			EU	Pair w/			ED		
	Ankle Band Work	T	2	0.0.0.0.7:10	Calf Raises	8	2		GH HYPR Incline					
500	Back Squat	5,3 250 - 335	1,1		Sport Back Squat	5,3 250 - 335	1,1		Piston Squat Band	T	#N/A - #N/A	4	0.0.0.0.15:10	
	PWJ 30 Rest BB	EU		EU	Pair w/			EU	Pair w/			ED	0.0.0.0.15:10	
	4 way neck	6	2		OC Ball Gron Squeeze	T	2	0.0.0.0.7:10	Ball LG Curl	T	#N/A - #N/A	4	0.0.0.0.15:10	
		EU							Pair w/			ED		
500	Back Squat	T 375 - 400	3	0.0.0.0.7:10	Sport Back Squat	1	440 - 465	2	0.0.0.0.5:10	Gopher U Abs	T		4	0.0.0.0.15:10
250	SL Hex Deadlift	T 75 - 90	3	0.0.0.0.7:10	Hex Deadlift	T 175 - 200	3	Reactive	BENCH PRESS	T 195 - 210	4	0.0.0.0.15:10		
	PWJ 30 Rest BB	ED		OC-D	Pair w/			EU	Pair w/			EU	2-2-2-2	
	Hip Flex Prone OC CL	T	3	0.0.0.0.7:10	OC Ball Gron Squeeze	T	3	0.0.0.0.5:10	Cuban PRSS	T	#N/A - #N/A	4	0.0.0.0.15:10	
	PWJ 30 Rest BB	EU			Pair w/			EU	Pair w/			ED		
225	Lat Pull Down	T 170 - 180	3	0.0.0.0.7:10	DB BO Row	T 30 - 35	3	0.0.0.0.5:10	Gripper	T 115 - 125	4	0.0.0.0.15:10		
300	BENCH PRESS	5,3 150 - 200	1,1		BENCH PRESS	5,3 150 - 200	1,1		DB Trn Floor Press	T 40 - 40	4	0.0.0.0.15:10		
	PWJ 30 Rest BB	EU		EU	Pair w/			EU	Pair w/			EUA		
	Med Ball Pass	5	2	1/2 Range	Med Ball Pass	3	2		DB Side Lat Raise	T 25 - 25	4	0.0.0.0.15:10		
	PWJ 30 Rest BB	ED			Pair w/			EU	Pair w/			ED		
300	BENCH PRESS	T 225 - 240	3	0.0.0.0.7:10	BENCH PRESS	1	285 - 280	2	0.0.0.0.5:10	Chin up	T 115 - 125	4	0.0.0.0.15:10	
300	BENCH PRESS	T 90 - 105	3	0.0.0.0.7:10	BENCH PRESS	T 90 - 105	3	0.0.0.0.5:10	H-Sq Sh Bi Trap					
	PWJ 30 Rest BB	ED		OC-D	Pair w/			EU	Pair w/			EU		
	GH HYPR Incline	T	3	0.0.0.0.7:10	Glute Bar Lift	T	250 - 275	3	0.0.0.0.5:10	Glute Ham Back Cav Iso	180s	#N/A - #N/A	1	
	PWJ 30 Rest BB	EU		OC-A	Pair w/			EU				EU		
75	DB Shoulder Press	T 25 - 25	3	7 - OC-D	DB 80 Lat Reb Drop	T	3	0.0.0.0.5:10	Ez Throat Press	10 75 - 80	2	0.0.0.0.5:10		
60	DB Trn Ext	T 20 - 20	2	0.0.0.0.7:10					Pair w/					
	PWJ 30 Rest BB	EU		OC-D	Bar Curl	T 35 - 40	2	OC-A	Pair w/					
	Bicep shock curls	T	2	0.0.0.0.7:10	Pair w/			ED	ED					
	PWJ 30 Rest BB	ED			Bench Add Glute OC	T	2	0.0.0.0.5:10	Glute Ham Back Cav Iso					
	Bench Abd Gron OC	T	2	0.0.0.0.7:10					Pair w/					
	H-Sq Sh Bi Trap			#N/A - #N/A	H-Sq Sh Bi Trap			#N/A						
	PWJ 30 Rest BB	EU												
	Chest Rev Grip Iso													
		ED												
	GH HANG	120S	1		GH HANG	120S	1	Relax Mouth						
	Pair w/				Pair w/									
	Rollers Glutes & Hams	120S	1	#FEET	Rollers Dreads & Back	120S	1	#FEET						
	Pair w/				Pair w/									
	LAYING RELAXATION	120S	1		LAYING WALL SHAKES	120S	1	Relax Mouth						

ADVANCED TRIPHASIC (5-DAY): ECCENTRIC PHASE, LOWER BODY ONLY

DAY	TIME	REPS	LOAD	SETS	NOTES	
MONDAY	100%	Neural Speed Activation	T	1	Fly 60	
		BACK SQUAT	3	305 - 330	Roll I-band	
			2	360 - 385	Spine Rolls	
			1	440 - 455	Coach Watch	
		Pair Below	3	400 - 425	6:0-0-0	
		Pair Below	3	400 - 425	6:0-0-0	
		Pair Below	3	400 - 425	6:0-0-0	
		French Contrast	3	400 - 425	6:0-0-0	
		Hurdle Hop	4	RMA - RMA	4	Height
		Pair w/NO REST	4	RMA - RMA	4	0:2:0-0
		SO Jump Weighted	4	RMA - RMA	4	0:2:0-0
		Pair w/NO REST	4	RMA - RMA	4	
Acc Band Jump/Pause	4		4			
4 Way neck	T	RMA - RMA	4	3:0:0:0:20:20 to acc 2-way		
PW / 45 rest/BBIRT	T	RMA - RMA	4	3:0:0:0:20:20		
Wrist Flexion	T	RMA - RMA	4	3:0:0:0:20:20		
PW / 45 rest/BBIRT	Set - Hr	RMA - RMA	10	2:0:0:0:20:20		
ANT TIB END	T		4			
220 DB Walking Lunge	T	145 - 155	3	Bands		
PW / 45 rest/BBIRT	T		3	0:2:0:0:20:20		
Cuban PRSS MC F8	T		3	3:0:0:0:20:20		
PW / 45 rest/BBIRT	Set - Hr	RMA - RMA	10	Each Leg		
Ankle Band Work	T		3	3:0:0:0:20:20		
550 Glute Bar Lift	T	415 - 440	3	3:0:0:0:20:20		
PW / 45 rest/BBIRT	T		3	3:0:0:0:20:20		
Hip Flex Eccentric CL	T		3	3:0:0:0:20:20		
PW / 45 rest/BBIRT	Set - Hr	RMA - RMA	10			
Bench Abd Groin	T		3	3:0:0:0:20:20		
Hip Traction	300S		1	Belly Breath		
Pair w/				No Rest		
Partner Leg Walks				No Rest		
Pair w/				No Rest		
GH HANG	60S		1	Relax Mouth		
WEDNESDAY	100%	Neural Speed Activation	T	1	Fly 60	
		BACK SQUAT	3	305 - 330	Roll I-band	
			2	360 - 385	Spine Rolls	
			1	440 - 455	Coach Watch	
		Death Ground	1	480 - 510	Rest 1:00	
		Death Ground	1	480 - 510	Rest 1:00	
		Death Ground	1	480 - 510	Rest 1:00	
		Death Ground	1	480 - 510	Rest 1:00	
		Death Ground	1	480 - 510	Rest 1:00	
		Death Ground	1	480 - 510	Rest 1:00	
		Death Ground	1	480 - 510	Rest 1:00	
		413 SL Leg Press	T	330 - 350	3	0:0:0:0:5:10
PW / 55 rest/BBIRT	OC			Single Leg		
605 RDL	T	485 - 515	3	0:0:0:0:5:10		
PW / 55 rest/BBIRT	OC			Same Leg		
Hip Flex Prone OC CL	T		3	0:0:0:0:5:10		
SNGL LG ISO Deadlift	T		3	0:5:0:0:5:10		
PW / 55 rest/BBIRT	T	RMA - RMA	3	0:0:0:0:5:10		
Nordic HAM Curls	Set - Hr	RMA - RMA	10S	OC		
PW / 55 rest/BBIRT	T		3	0:0:0:0:5:10		
Bench Abd Groin OC	T		3	0:0:0:0:5:10		
550 Glute Bar Lift	T	525 - 550	3	0:0:0:0:5:10		
PW / 55 rest/BBIRT	T		3	0:0:0:0:5:10		
193 SL Reverse Hyper	T	185 - 195	3	0:0:0:0:5:10		
PW / 55 rest/BBIRT	Set - Hr	RMA - RMA	10S			
Bench Add Glute OC	T		3	0:0:0:0:5:10		
PRTRN Abs	T		3	0:0:0:0:5:10		
Hip Traction	180S		1	Belly Breath		
GH HANG	120S		1	Relax Mouth		
FRIDAY	100%	Neural Speed Activation	T	1	Fly 60	
		FRONT SQUAT	3	240 - 265	Roll I-band	
			2	285 - 310	Spine Rolls	
			1	350 - 365	Coach Watch	
			3	285 - 310	6:0-0-0	
			3	285 - 310	6:0-0-0	
			3	285 - 310	6:0-0-0	
			3	285 - 310	6:0-0-0	
		Hurdle Hop	3	RMA - RMA	4	Height
		PW / no Rest	3	RMA - RMA	4	Pause
		USSR Plyo Box	3	RMA - RMA	4	Rest
		PW / no Rest	3	RMA - RMA	4	Rest
Acc Band Jump/Pause	3		4	Rest HR T10		
Bench Abd Groin ECC	T	RMA - RMA	3	0:3:0:0:25:30		
PW / 35 rest/BBIRT	T	RMA - RMA	3	3:0:0:0:25:20		
CP Ext Rot rev Band	T	RMA - RMA	3	3:0:0:0:25:20		
PW / 35 rest/BBIRT	Set - Hr	RMA - RMA	11S			
Ankle Band Work	T		3	2:0:0:0:25:25		
248 DB RDL Shrug	T	125 - 135	3	5:0:0:0:25:30		
PW / 35 rest/BBIRT	T		3	5:0:0:0:25:30		
Hip Flex Ecc Prone	T		3	5:0:0:0:25:30		
PW / 35 rest/BBIRT	Set - Hr	RMA - RMA	11S			
248 Single Leg Squat	T	125 - 135	3	3:0:0:0:25:30		
360 BENCH PRESS	T		4	12:0:0:25:35		
PW / 120 rest/BBIRT	OC			OC		
90 DB Shoulder Press	T		3	12:0:10:25:35		
PW / 120 rest/BBIRT	T					
180 Rev Grip Trn Push	FFF	125 - 70	3	12:0:10:25:35		
GH HANG	120S		1	Relax Mouth		
Pair w/						
Partner Leg Walks	120S		1			
Pair w/						
Hip Traction	300S		1	Belly Breath		

BONUS VIDEO

[TRIPHASIC BLOCK METHOD PROGRESSION IN THE
TRANSFER OF SPEED PERFORMANCE: PART I](#)

[TRIPHASIC BLOCK METHOD PROGRESSION IN THE
TRANSFER OF SPEED PERFORMANCE: PART II](#)

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Cal Dietz has been the Head Olympic Strength and Conditioning coach at the University of Minnesota since 2000. He has developed the Strength and Conditioning Programs and overseen the daily progress in Men's Hockey, Men's Basketball, Women's Hockey, Men's and Women's Golf, Men's Swimming, Track and Field, Baseball, and Wrestling.

During his tenure, Dietz has trained a Hobey Baker Award winner, two Big Ten Athletes of the Year, over 400 All-Americans, 28 Big Ten/WCHA championships teams and 7 NCAA National Team Champions, and 13 teams finish in the top four in the nation. He has consulted with Olympic and World Champions in various sports and professional athletes in the NHL, NFL, NBA, MLB, and Professional Boxing. Also, during his time at the university help founded and chairs the Sport Biomechanics Interest Group with its purpose to explore the physiological and biomechanical aspects of advanced human performance encompassing the various aspects of kinesiology, biomechanics, neuro-mechanics and physics.

The Shelby, Ohio, native earned his bachelor's degree in physical education from the University of Findlay in 1996 and his master's degree from Minnesota in kinesiology in May, 2000. During his athletic career at the University of Findlay Dietz won three National team championships, two in football and one in wrestling. Highlights of his career was earning 2 All-American honors in Football and winning the NAIA National Duals MVP in wrestling. In 1995 he received the NAIA College Sports Magazine Athlete of the year and was inducted into the University's of Findlay's Hall of Fame in 2005.

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Ben is a graduate of Northwestern University where he played football for the Wildcats. During his tenure he developed a passion for discovering what makes the human body tick -- creating and implementing new methods to train, develop and improve sport performance. Ben started his

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