



**Complete Athlete Development  
Program**

## **Introduction**

After witnessing too much of the “keep them busy, make them tired” method of training that pervades the industry, Ultimate Athlete Development was started to properly educate and train athletes to prepare them for sport, rather than simply making them tired. By educating our athletes and parents about more effective training methods, we hope to not only improve their performance, but their confidence and knowledge of the training process as well.

All programs at Ultimate Athlete Development are designed for the individual athlete and every training session is coached. They are not simply given a sheet of paper and let run loose. Every athlete that walks through the door has their own strengths & weaknesses, training and injury history, training capabilities, and psychological makeup. There are principles that apply to all athletes, but to try to shoehorn every athlete into one or a few training templates would lead to suboptimal results.

At Ultimate Athlete Development, we are committed to developing the best athletes possible. Our goal is to create a holistic program to develop all-round, healthy athletes. Each of our programs are designed to make athletes stronger, faster, more explosive, leaner, and more injury resistant. Too often, these aspects of training are thought of as being distinctly different.

For example, rotator cuff exercises are considered injury prevention, and pushups and bench presses as strength training. But all the rotator cuff work in the world will not save your shoulders if your pushup or bench press technique stinks. If we teach athletes the proper landing and cutting positions, they will not only be faster, but safer. Proper strength training technique increases mobility, strength, and power and provides injury prevention benefits due to improved joint stability through a full range of motion. Speed and agility are trained not only through drills, but proper strength and power training and education about good eating habits.

Warm-ups, strength training, technique, stretching, conditioning – it all works together to make a better athlete. Every part of the training process must work together to promote performance and health. To further demonstrate this, an impromptu study conducted by Andrew Paul and the strength and conditioning staff for football at the University of Missouri found that:

- 82% of improvements in agility times were explained by the combination of strength improvements (squat) and body composition improvements (getting leaner).
- 71% correlation between vertical jump and agility times
- 92% correlation between body composition and vertical jump

What this all adds up to say, is that getting stronger and leaner makes you a better athlete! And if it happens at the collegiate level, you darn well better believe it happens in younger athletes, and likely to a larger magnitude.

One final thing to consider is time investment. In the course of a typical speed and/or agility training session, they have likely gone through drills and run ragged for 45 minutes, but they have done little to strengthen muscles, tendons, and ligaments, learned little about how to properly move and position their bodies in space, and likely not learned proper technique in basic movement patterns such as squatting, pressing, pulling, and lunging. In all likelihood, the benefits they gain in that session probably could have been realized in about 1/5 the time, leaving plenty of time to focus on the rest of their development. The holistic nature of our program works to improve all aspects of athletic ability, aside from sport-specific skills. These skills are best learned in the sporting environment, not in the weight room.

## General Physical Preparation

A stable base must be built before advancing to more sophisticated and specialized training. This is similar to building the foundation of a house – without it, the house may stand for a while, but will eventually crumble. This foundation is often referred to as general physical preparation, or GPP.

*“Exercises or activities NOT directly related to the sport, that develop physical qualities, improve technique, (or address individual morphological (structural) issues).”*

*-Mike Gattone, adapted from A. Medvedev*

General physical preparation is any type of training that is not specific to the sport. This generally includes strength training, and any other non-specific movement training. This general training becomes necessary because high volumes of sport-specific training forces athletes to adapt to specifically what they must do to succeed in their sport. While this is a good thing for performance, it also increases the risk of injury, due to pattern overload that takes place. Certain muscles become strengthened while others become weaker, which makes joints more susceptible to injury. For example, swimmers, baseball, softball, and volleyball players tend to have excessive internal rotation at the shoulder, due to the very nature of their sports. Without proper training of the posterior shoulder, the likelihood of injury increases.

GPP makes up the vast majority of the training at UAD. All parts of the training that do not apply strictly to the athlete's sport are covered.



## Strength & Power

Pavel Tsatsouline refers to strength as the “Mother quality” – that is, nearly all other physical qualities are positively impacted by getting stronger. Because of this, strength is the foundation for nearly every program at Ultimate Athlete Development. Increased strength improves hypertrophy, power, agility, strength endurance, and conditioning. By creating a “reserve,” and allowing an athlete to operate at a

lower relative percentage of their best, it allows them to keep something “in the tank” for the rest of their competition, rather than always having to operate at 100% effort to compete.

All athletes at Ultimate Athlete Development must demonstrate competency in bodyweight exercises before moving on to using free weights. Barbells, dumbbells, kettlebells, and odd objects make up the various external loading that athletes may use. Free weights are preferred over machines due to the coordination and stabilization required in their use. The majority of exercises in UAD programs are large, multi-joint lifts, on two feet. These lifts integrate and teach the body to work as one, as well as teaching stability.

In addition to building strength, athletes are trained to display this strength in a short amount of time, otherwise known as power. Power is essential for faster sprinting, higher jumping, and faster change of direction.



## Speed & Agility

Many people first look at our facility and unfortunately assume that we only cover strength training. However, our training covers the whole gamut of physical qualities, including movement properties, such as speed and agility. However, the results of the study by coach Paul at the University of Missouri showed that traditional agility drills such as ladders and cone drills are likely highly overrated. Those methods are good for getting athletes better at ladders and fast feet drills, and they look great, but do little to teach an athlete proper body positioning or how to put force into the ground to change direction. That is because agility consists, largely, of 3 things:

- Relative Strength (Strength relative to the athlete's body weight)
- Body Positioning and Angles
- Kinesthetic Awareness (Awareness of where the body is in space)

By focusing on these 3 aspects, we can improve the agility of our athletes more effectively than more traditional means. Therefore, the speed and agility of our athletes are improved by focusing on their kinesthetic awareness, running and cutting mechanics, and increased strength via strength training.

## **Injury Prevention**

Injury prevention is vital for continued improvement – an athlete can't get better sitting on the sideline! The role of the strength and conditioning coach is, above all, to do no harm. This means that we are to avoid any and all injuries in the weight room while also reducing the risk of injury on the field of play via smart training.

With that in mind, injury prevention is a complicated and multi-faceted phenomenon. Strength, proper technique, and proprioception all play important roles in injury prevention. Additionally, carrying minimal body fat can reduce the stress on joints, possibly decreasing overuse injuries.

Young athletes are extremely resilient and will bounce back from unnecessary stressors far better than adults. For this reason, the rounded-back deadlifts and cleans, knee-caving squats, and elbows flared bench presses commonly seen in many weight rooms will often not lead to injury in the short-term in the younger population. However, as these athletes age, this undue stress will eventually accumulate and lead to injuries that could have been avoided. For this reason, many coaches of young athletes may boast of their low injury rates, not realizing the disasters they are setting up for the future.

As such, correct technique is strongly emphasized at Ultimate Athlete Development. Proper execution of exercises and biomechanically sound movements performed in training will strengthen the appropriate muscles and minimize the stress on the supporting structures, such as the tendons and ligaments. Piling a bunch of bad reps on top of one another may make an athlete tired and feel like they're working hard, but it also places them at a much greater risk of injury. Additionally, strengthening the structures surrounding the joints (muscles and tendons) via proper strength training will provide extra stability, reducing the risk of injury.

## **Mobility/Flexibility**

Mobility and flexibility are frequently overlooked aspects of many programs. It is often assumed that a few stretches here and there are all an athlete needs to gain the requisite mobility. While that may be fine for some athletes, it certainly is not for all.

Additionally, self-massage is a great form of recovery for athletes. Because of this, all athletes are educated in proper self-myofascial release techniques, such as foam rolling and self-massage with various implements such as softballs, golf balls, lacrosse balls, and PVC sticks. Each athlete is also prescribed warm-up protocols and static stretching (if necessary) based on their individual needs. Nearly all athletes need more flexibility in the hip flexors and anterior shoulder/pecs, but some athletes have other needs as well, while some do not need extra flexibility and mobility. The amount of flexibility and mobility needed will be determined by the sport(s) the athlete plays.

## **Youth Training**

The need for general physical preparation is even greater the younger an athlete is. By building a solid foundation of general movement abilities, while also ingraining good technique and movement skills, they have a great foundation on which to build specific sport skills. Athletes as young as 10 are permitted to train at Ultimate Athlete Development, although we strongly encourage kids at that age and younger to get as much unstructured play time in as possible, in a variety of modalities and sports. The wider array of skills learned at this young age, the better off they will be in the future. Sport coaches at that age should be focused on proper movement and sport skills, as opposed to spending much time on game tactics, such as the offense or defense they are running.

Youth athletes will spend very little time using external loading, especially early-on, as they must first learn to master their own body weight. No athlete at UAD touches a barbell until they can properly demonstrate body weight squats and lunges and can perform at least 20 legitimate pushups. Youth athletes also can be seen performing gymnastics and tumbling movements and playing games that improve concentration, coordination, and kinesthetic awareness. Another goal with this age group is to promote the enjoyment of the training process. The drill sergeant style of coaching does little to promote this, and many kids drop out of sport at a young age due to this, never to return. Promoting a positive sporting experience, while giving them a chance to succeed, is vital at this time.



### **In-season Training**

A commonly overlooked aspect of training is that of in-season training. Many athletes will put in months of hard work in the offseason, only to stop completely once the season starts, due to the high demands and stresses placed on them by their sport practice. We strongly encourage all our athletes to continue training through the season, although depending on factors such as biological age, training age, level of sport competition, and trainability, it may be at lower frequencies, intensities, and/or volumes. For younger athletes, training in-season will change very little, as their sporting results are far less important than skill acquisition. The younger the athlete, the more time should be spent learning movement and sport-specific technical skills. That is, they should not be overly concerned with learning and mastering the tactical aspects of sport, such as things like learning plays, where to go with the ball in various game situations, etc. These aspects of sport can be learned later and are not important at this time, nor are winning and losing. Fun and proper sport skill acquisition should be emphasized.

However, as athletes get older and begin to compete in more competitive environments, the general training must be reduced in order to allow for improved sporting performance. To continue with the same level of general training while they are focusing multiple hours near daily on perfecting their sport is a recipe for disaster. For this reason, we offer a reduced rate for in-season athletes, due to a reduced training time, though this does not diminish its importance. In advanced athletes, the importance of in-

season training lies more in maintenance of physical qualities and injury prevention than improving physical performance markers.

### **Intensive Coaching**

Due to the small-group nature of the training at Ultimate Athlete Development, coaches are able to be hands-on with each athlete, allowing for perfect technique, increasing strength and injury prevention benefits. Our experience working with athletes runs the gamut from 12 year-olds through Division I athletes.



We pride ourselves on our ability to effectively teach techniques and concepts, as well as justify our training philosophies. If we can't explain to our athletes why we are doing something, we feel that we shouldn't be doing it. For instance, we aren't simply trying to get stronger for the sake of getting stronger. If I tell an athlete we need to get better at squats, their goal becomes getting better at squatting. But if I tell them that the goal is to get stronger at squatting so we can put more force into the ground, and therefore jump higher and run faster, their goal changes from simply "get a bigger squat" to "drive harder into the ground." This important distinction extends to everything we do. We train a certain way not only to improve performance, but reduce injury, by using sound teaching progressions and techniques.

### **Energy Systems Development**

The common model for "conditioning" is simply to make the athletes as tired as possible, with little regard for the actual energy systems of the body being developed. While this is fine for younger and untrained athletes, for whom literally almost anything will make a difference, to truly condition athletes for their sport, a more direct approach is necessary. Many places will try to sell you on how hard their workouts are and how tired the athletes will be at the end. But the greater question to be asked is, how much better did they make them? Literally anyone can make people tired, but it takes someone who knows what they're doing to make someone better. Our programs are aimed at the needs of the athlete.

### **Nutrition Counseling**

We understand the important role that nutrition plays in the results an athlete will achieve. Proper eating habits improve body composition and health and fuel athletes for both training and competition. With so much conflicting nutrition advice available, we want to give athletes practical and helpful advice they can

use and implement into their daily routines, along with teaching them healthy eating principles they can use for a lifetime.

Each athlete will fill out a 3-day food log at the start of their training time at Ultimate Athlete Development. Using this as a basis, recommendations are given to improve the athlete's diet, one step at a time. We realize that dietary habits do not change overnight. Thus, we start small, and encourage long-term change over the course of time.

## **Recovery**

The time athletes spend in our facility is important, but if the extent of their training begins and ends there, they simply will not realize their potential. Nutrition, recovery and restoration means, and quality sleep are all things that athletes simply must take care of on their own time to realize success. Rather than assume they will take care of these things, we must arm them with the best information we can and hold them accountable for them.

Plenty of time and effort goes into training, but not nearly enough time and education is given to recovery. We educate our athletes on not only the importance of recovery, but active recovery methods that they can use to make the best use of their time away from the facility. We educate our athletes on how to read their bodies, and encourage them to take great care of themselves outside the gym to maximize results. Self-massage, icing, stretching and mobility work, and sleeping habits are always discussed with our athletes. We know what it's like to be kids, feeling invincible with little need to focus on recovery. But our athletes have repeatedly found that they feel and perform better, while minimizing injury, by doing so.

## **Testimonials**

When I first began high school sports (football to be precise) I weighed around 185lbs (wet). I wasn't big into weight lifting but it was a requirement to have to go out for football. So I did it! Our coach at the time had two individuals who taught us how to lift properly and also, how to stay motivated in the gym! Brock Leggins got me absolutely hooked on strength training. He was there for me every step of the way in terms of weight lifting! I could clean 120lbs, bench 165lbs, and squat 275lbs as a freshman in high school. I truly believe that without his guidance and encouragement I would NOT be lifting like I am today. I still train hard, and some of my personal bests include a squat of 475 lbs, bench 300 lbs, and deadlift 600lbs, and have participated in lifting competitions around Iowa.

Brock, Thanks For EVERYTHING you've helped me accomplish in the gym man!

*-Jake Ernst*

"I have two boys currently working with Sampson. Nick is a junior (basketball) and Nathan is a ninth grader (football and track). What has impressed me is the strength and conditioning education both have learned during their workouts. Sampson has covered the importance of nutrition, how the body works, injury prevention, and the connection of workout routines to the direct benefit of the athlete. The communication between trainer and athlete is exceptional, which results in a relationship that grows as knowledge of their bodies grow. As a parent I can relax knowing both boys are getting more individual attention in a small group setting along with little "down time" during the 45-60 minute session.

Another positive is Sampson customizing a program that works best for Nick and basketball while having a different program catering to Nathan with football and track. Nick and Nathan have different body types. Sampson's focus with Nick was to build upper body strength and mobility which will improve his rebounding efforts. The following summary was emailed by Sampson on Nathan, "The first 3 months on of the program were spent correcting the hip immobility that Nathan had in-order for him to be able to proper complete all of the lifts correctly. If the hip immobility issue were not addressed, Nathan would have been highly probable for knee injuries (ACL), and muscle strains (biceps femoris, semitendonsis, semimembranosus, abductor longus, sartorius, gracilis). Nathan now can complete a FULL squat (butt to ground) with no hip abnormality. I'm happy about fixing the muscle and hip issues that he had."

Last, but not least, Sampson is slowly building the boys' confidence in their physical abilities. This confidence increases their contributions as athletes with their high school teams. An athlete's self-confidence is important to his mental focus being able to compete without intimidation during practices and games. It is always exciting to see the improvements when they "max" out every 3 months."

*-Jerry Gerlach*

"I am so thankful to have found Brock and Ultimate Athlete Development. Brock is smart and personable. He studies and practices what he teaches. He had been training both of my teenage daughters. Brock has a genuine interest in their wellbeing. He challenges them to be stronger as well as safe. He challenges their diet so they get the most benefits from their training. I have confidence in Brock as he wants to see progress and he is critical about keeping the body safe from injury. When my daughter was injured during a rec game of volleyball, he would check on her and give solid advice for recovery. Brock showed up for a school games once which surprised me with his busy schedule. He said he loves to watch his clients excel! My girls love to work hard and they are stronger physically and mentally because of their personal trainer. Thanks Brock."

*-Jill Reding*

## **Coach Bios**

### **Brock Leggins MS, CSCS**

Brock earned both his Bachelor's and Master's degrees in Exercise Science from the University of Northern Iowa. He earned his Certified Strength & Conditioning Specialist (CSCS) credential from the National Strength & Conditioning Association (NSCA) in 2006. While at UNI, he assisted with the strength & conditioning for multiple teams over his final two and half years, including football, rugby, track & field, and volleyball, and directly oversaw the strength & conditioning for the men's rugby, women's basketball and men's and women's golf teams in his final year there. That same year, he was also in charge of strength & conditioning for Grundy Center High School. He has spent the last four years working with junior high and high school athletes in a variety of sports. Brock is a native of West Liberty, Iowa. He and his wife Mindy currently reside in Norwalk.

### **Sampson Shnurman ATC, CSCS**

Sampson graduated from Simpson College with degrees in Exercise Science and Athletic Training. At Simpson, he worked as the assistant strength & conditioning coach with a variety of sports, including football, wrestling, swimming, soccer, and basketball. His last year there, he personally oversaw women's soccer and wrestling. He achieved his CSCS credential in 2012. Additionally, he is a Certified Athletic Trainer in the state of Iowa. His knowledge of sports injuries and rehabilitation techniques demonstrates his focus on injury prevention within his programs. Sampson is an outstanding racquetball player, representing Simpson College in a 2<sup>nd</sup> place finish at the Collegiate Nationals. He also participated on the International Racquetball Tour while attending Simpson and achieved professional status. Sampson is a native of Martensdale, Iowa and currently resides in West Des Moines.

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