

Philosophy.



BoingVERT



***You Do Not Have The Full Program**

To get the complete program, you must activate your BoingVERT Jump Society membership. The site is Members Only, Invitation Only. (If you did not buy BoingVERT Blast Off! then the program you are looking at is NOT the complete program.) There are additional exercises as well as unique exercises that are part of the program but NOT contained in these PDFs.

Further, each exercise must be done correctly as demonstrated in the videos.

More yet, the dietary information you need to maximize your vertical potential is located only in the Members Only Site.

***Note: If you did not purchase BoingVERT Blast Off!**

You do NOT have the full program.



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BoingVERT PHILOSOPHY BOOKLET

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Introductory Letter from Dr. Jump

Dear BoingVERT Athlete,

Congratulations! You hold in your hand what I am personally promising will change the way that you jump and allow you to reach heights you never thought possible. With a fine-tooth comb, I have ravaged through every piece of jump-specific research that I could get my hands on. I didn't just read it; I have compiled, studied, and challenged it. Second, I have had the unique opportunity to listen to and spend time with some of the most amazing sports scientists and coaches our industry has ever seen. Not only have I been greatly influenced by their findings but I am positive that by paying it forward you will now benefit, as well. In addition, I have spent countless hours analyzing and dissecting what makes elite jumping athletes perform to their near superhuman levels (this includes the freaky athletic FH Global team members). Last but not least, I have tested out the theories on athletes of all levels to enable me to formulate the most optimal training theories as it pertains to increasing jump performance. All of this has been done in the quest to change the way that jump performance is approached around the world. Thus, I am excited beyond belief to have this opportunity to reach out to you and more importantly show you the proven ways to walk the sky.

I have often said that I would never design a mass jump training program. Well, I guess I learned to never say never! When I was approached by the team members of FH Global regarding the development of the BoingVERT program I could immediately sense their passion and energy to give the BoingVERT athlete every advantage to learn to walk the sky. They could have easily gone with a cookie-cutter training program that would be suboptimal for the majority of you but they didn't do that. They had a greater purpose. Their desire was in giving you, the athlete, the ability to reach your goals in the most scientifically-proven and results-driven fashion. Thus, I decided to jump on board with them and help take you to the next level of your potential. I firmly believe that no matter where your current jump skill mastery lies, you can improve through the dedicated use of this program. The BoingVERT program was designed with this singular goal in mind.

This industry is always changing. That said I am never done learning and I will continue to do everything in my power to ensure that I am able to offer you support and expertise in your journey. We at BoingVERT are committed to your excellence. Thus, be sure to keep an eye out for information that we will provide you in the future that will continue help take you to further levels.

I want to thank Guy and Dillon from FH Global for believing in my abilities and bringing me on-board for this unique opportunity to help those who are chasing greater stars in the sky. I want to thank the incredible athletes of FH Global who not only provide an example of excellence to athletes across the globe but allow me to study their unique prowess in order to better improve others. I also want to thank the numerous leaders throughout the industry that have shaped me and my line of thinking so that I can more fully enable athletes to become more today than they were yesterday. Most of all, I want to thank YOU, the athlete, for having the determination and commitment towards bettering yourself and reaching for new heights. Your passion fuels mine. You are the ones who inspire me to hone this craft to the point that I strive to each and every day. You have my enduring word that the program that you hold in your hands will not disappoint you in your quest to be your best.

May you all continue to chase bigger and better dreams. Do not listen to the naysayers. And do whatever it takes to achieve everything you could ever hope for.

NLBTS-No Limits but the Sky!

Shawn “Dr. Jump” Myszka, CSCS*D

About the Program Designer

Shawn Myszka (aka Dr. Jump) is the Co-Founder/Athletic Performance Director of Explosive Edge Athletics in Minneapolis, Minnesota, which currently trains many of the top athletes in the state of MN on all levels and he serves as a consultant to coaches at numerous professional, collegiate, and high school athletic programs. Shawn is a well-known and highly sought-after clinician who is a true leader in the field of jump training, plyometrics, and sport-specific power development. He is a frequent presenter at strength coach and sports-specific conferences nationwide. Shawn, who is the Founder of the Plyometrics/Jump Training Special Interest Group, has also recently developed the first-ever Jump Training Certification designed for coaches looking to specialize in training to increase jump performance. Shawn's professional research is centered specifically on testing the latest training concepts, theories, and trends related to jump training and development. This focused-research has helped him to author countless articles focused on jump training techniques in various publications over the last number of years. In addition, Shawn serves as an adjunct professor in the Exercise Science Department at Bethel University in St. Paul, MN. Finally, Shawn is a founding member of the Minnesota NSCA Advisory Board and was voted the 2008 Minnesota NSCA Trainer of the Year.

Education and Certifications

CSCS*D-Certified Strength & Conditioning Specialist with Distinction through the NSCA

SPS-Speed Power Specialist through Strength Pro

SES-Speed & Explosion Specialist through the National Association of Speed & Explosion

CPS-Certified Physique Specialist through the International Physique Professionals Association

Masters of Science degree in Exercise Science with an emphasis in Performance Enhancement from California University, 2011

Bachelors of Science in Health Promotion/Wellness with an emphasis in Strength Training from the University of WI-Stevens Point, 2003

Introduction

We know why you are here...you have one singular training goal...to jump as high as humanly possible. More specifically, you want to jump like the athletes of BoingVERT fame. While we can't promise that you will ever be doing 720 between-the-legs dunks, we can promise that the BoingVERT program will take you to another level that you are not used to.

The BoingVERT manual was not created to be a thesis or dissertation for you to read before you can ever get started. Quite frankly, we have done the research. We know what science has proven to work and not work. We have broken down the most pertinent research, combined the findings, and put it in an easy-to-follow template that will help you in your quest to reach your full jump mastery levels. We took it upon ourselves to relate the research in a simple way to the methods incorporated in this program. The brief explanations in this manual are by no means comprehensive but it will help to put us all on the same page. Furthermore, we don't need you to magically have a new profession as an exercise scientist when you have finished reading the manual but it is important that you know and understand what you are trying to accomplish.

Now that you have become a BoingVERT athlete you are part of our family. We are not going to leave you high and dry. We want to continue to give you the help and support that is needed throughout your journey towards the sky. We will be able to do this through your active participation in the BoingVERT community and sites. That said the plan that you hold in your hands is relatively simple and straightforward. For the majority of individuals out there, this approach is spot-on to what is required to make gains in leaping ability. Simply put, there is no need to overcomplicate matters any further than this. The time will come down the road for more detailed investigations as one advance up the ladder of jump mastery. However, many will probably attempt to add more into the plan but it should be warned that this will often be counterproductive in relation to jump performance gains. Stick to the plan exactly and it will get you optimal results. However, veer off in anyway and it could result in overtraining, injury, and at minimum, subpar results.

NOTE: We could sit here and bore you with literature reviews of the research that is out there regarding the concepts of jump performance. However, the fact of the matter is that most of you won't necessarily care about the whys. The thing that most of you care about is that you are getting up higher than you ever have. And we will enable you to do just that. However, there will be those people who do wish to learn more. For those individuals, we have provided references at the end of the

program manual which will go far in serving those athletes who would like to perform additional research and read some of the pertinent information regarding where many of the BoingVERT program ideas were developed.

Jump Science Classroom

Because of the importance of vertical jump performance enhancement in many sports, the attainment of qualities important in the execution of jump-specific tasks has been an area that has been very well-researched by sports scientists for decades. It's intuitively obvious to say that by even slightly increasing one's jump performance he/she may increase his/her earning capabilities in their sport by hundreds of thousands of dollars. Not only can superior leaping ability dictate the strategy and outcome of many sport events, it also is one of the most important physical performance determinants and can offer coaches tremendous insight into the physical attributes of a given athlete. Beyond that, we know that jumping high is cool and can make you a boss over your peers!

No one has taken in more scientific evidence along with the unique combination of analyzing some of the top leapers in the world than we have. We assure you of that. Thus, BoingVERT focuses on the heavy-hitting concepts that have been proven over and over again in research. We are not claiming to have any secrets. What we are offering are the proven methods to increasing jump performance in a calculated and periodized fashion that will drastically increase your jumping prowess. After continually performing jump-specific research and through the very detailed analysis of BoingVERT jumpers, we are able to establish key factors that will affect jump performance above all other concepts. By focusing on these factors, you too, will progressively increase your ability to get up in the air like no one else. A very brief discussion of each of those keys will be shared below.

The BoingVERT Key Factors to Jumping High

Jump Movement Skill is Paramount

How you jump and move will determine much of your success. It has been shown that all of the strength in the world means nothing if your body doesn't have the correct movement patterns to use it in the most optimal fashion. Have you ever wondered why you may see athletes who have high mastery levels performing very basic movement skills as part of their training? There is a reason for it: the athlete must continue to put the proper movement patterns in place on a continual basis. That said, it has been proven by some of the top sports scientists the industry has ever seen that technique in any sport skill is never constant. Meaning, once we self-optimize our jump technique and the corresponding coordination, we can't be sure that it will necessarily be repeatable. This becomes truer as your physical characteristics become improved. Your technique will be ever-changing. On that same note, because of the vast differences among individuals (in regards to their

biomechanics, neuromuscular characteristics, and physical qualities), there will be no one optimal technique that applies for all athletes. This is contrary to popular belief but it should make greater sense as to why this is the case as you continue to read about the variables that pertain to jump mastery and performance. However, there is a single, most optimal jump technique and coordination movement pattern for YOU based on what makes you who you are. Thus, the BoingVERT Jump System will require you opportunities to perform jump technique days throughout the program to continually give your neuromuscular system the opportunity to learn your proper jump movement patterns.

Overall, maximal effort jumping is a bigger part of the BoingVERT Jump System than it is in many other vertical jump programs on the market. Improper movement patterns not only rob you of your jumping power and energy, but it can lead to great dysfunction and increased risk of injury in both the short and long-term. In order to optimize jump movement patterns, we must look to combine both neuromuscular efficiency along with biomechanical efficiency. This means not only will we utilize exercises that put you in a position that orchestrates optimal movement patterns but also do it in ways that will take advantage of your body's force characteristics. Because of the lack of attention in this regards (i.e. a focus on optimizing technique/coordination) for most athletes, they are currently performing their jump tasks in ways that are hampering their performance greatly. Thus, this new emphasis is going to be an invaluable contributor to one jumping higher. The jump patterns of athletes who are of more beginner status can vary widely as the whole execution of jump acts are still relatively unstable. As more repetitions take place, these variations decrease and the movement pattern begins to become an involuntary act that requires very little thinking to execute. Remember, only perfect practice will make perfect and take you in the direction that you want to go.

Landing/Plant/Absorption

It can be said that how well we take-off is going to be determined by how well we plant or land. The reason is because the amount of energy that is being absorbed by the body and its tissues while we are planting/landing (or going through its downward stretching phase on a countermovement jump) is going to be considerably greater than the amount of force being produced while the body is pushing off. When an athlete lands from a jump he/she will be required to absorb anywhere from 3 to 8 times his/her own bodyweight depending on the dynamics of the specific jump and the landing style employed. In addition, Newton's Law would tell us 'every action has an equal and opposite reaction.' Thus, if we teach our bodies to take in additional force in a more efficient manner, it will inherently be able to exert more force out. Put more simply, if we increase how well we plant or land, we

increase our ability to take-off. The idea of decreasing time-to-stabilization (TTS), where TTS refers to how long it takes to dynamically stabilize the body, is one that has great correlation to improvement in jump conditions. Because of this, you will notice that there is great emphasis in the BoingVERT Jump System on eccentric movement actions and the elastic energy capabilities of the muscle and tendon complex. This emphasis makes the BoingVERT program much different than any others on the market. If a program neglects this key concept, it will lead to jump technique inefficiencies and/or could manifest into a non-contact injury. There will be much more to come on optimal landing concepts as you continue to read this manual.

Rapid Change of Direction into Take-off

In the highest performing athletes, the transition time between eccentric and concentric actions (between downward and upward) is completed in the most rapid fashion possible. This is both by training and by design. This fast transition will allow for the greatest utilization of energy stored during the downward phase as well as the greatest build-up of maximal forces earlier in the upward phase of the jump. This speed will also allow for the agonist muscle groups (i.e. the muscle groups that will contract in order to produce force for your take-off) to temporarily change their force characteristics and allow for greater speeds due to the involuntary stretch reflex that is built into them. You may have heard of the stretch-shortening cycle (SSC) before. That is exactly what we are referring to here when we speak of this combination of elastic energy and stretch reflex. This SSC is present in most jump tasks in which the contributing muscle groups are first stretch-loaded and then shortened quickly to add to the concentric power production capabilities. We will see this type of SSC-action during the execution of a countermovement jump (where one flexes at the knees and hips first before pushing-off to propel upward) or during an approach/running vertical jump (where the plant phase acts as the rapid stretch before push-off). When this SSC is present, the action becomes very sensitive to both the rate and the magnitude of the stretch. Meaning, how fast and how deep one proceeds through his/her stretch phase will dictate just how much contribution is realized from the properties of the SSC. The SSC makes movement much more fluid, efficient, and less demanding. Thus, we should always look to take advantage of it whenever we can in both the movement efficiency we display in jump-specific tasks as well as the exercises we select. The SSC will allow us to change direction rapidly and reduce how long it takes to produce movement. Coincidentally enough, a short time-to-takeoff (TTT) has often been correlated with high-performing jumpers. This "TTT" can encompass each phase of the jump action (eccentric/plant, amortization/transition, and concentric/push-off) and is defined

as the time from which the individual begins their eccentric/plant action to the time that the toe leaves the ground. Overall, each component of the BoingVERT Jump System will have specific exercise protocols which work towards decreasing TTT through the attainment of specific physical traits and qualities.

It's about Speed of Movement

Watch any great jumping athlete and the first thing you are bound to notice that separates him/her from the ordinary jumper is their extraordinary speed of movement. This is no accident. Whether they attained it through concentrated training or it happened as a by-product of self-optimization, the fact of the matter is their crazy movement velocities are a big key to their jumping prowess. The fortunate part of this is that we can train our bodies to move in a similar fashion. We are what we repeatedly do. Thus, we must train with methods that will emphasize the movement speeds we attain during jumping conditions. We know that with jump-specific tasks we have very limited amounts of time to produce force and move in the direction that we desire to go. For example, during the ground support phase of a plant and jump, our feet may be on the ground for only 300 milliseconds. Maximum force development requires 600-800 milliseconds in most individuals. Thus, to piggyback what will be said below during the brief discussion regarding the role of strength in jump performance, it should become very apparent that speed is of much greater importance than strength for the attainment of most jump-task prowess. Jump height is ultimately determined by the velocity our bodies are able to attain at takeoff.

Role of Strength

We won't sugarcoat it: a certain amount of strength is required to reach your maximum jump mastery potential. However, much can be done without the use of resistance/strength training.

The question is usually posed then, "do I need to perform strength work in the form of weight training as part of my quest for jumping maximally?" The answer is no. That said muscular strength does contribute to jump performance. However, focus on strength only results in significant vertical jump increases in individuals who begin with average or below average strength. The reason for this is because sometimes strength methods are usually incorporated in a very slow fashion with an overemphasis on what occurs during the concentric portion (upward/push-off phase) of a jump movement. To add to this discussion, it's important to note that training-induced improvements in maximal strength or force output during slow movements do not always produce improvements in vertical jump characteristics. This is due to the fundamental exercise concept of the force-velocity curve. What

this states on a basic level is that as force of a given movement (or exercise) goes up, velocity inherently goes down and vice versa. We see this when any athlete attempts to lift maximum loads in an exercise as this often requires very slow muscle actions. In contrast though, jump height is going to be dictated by velocity at take-off so we must do everything in our power to increase the velocity-specific characteristics of the body to optimize jump performance. Some advocates of heavy strength training to improve jump performance will certainly balk at this claim. However, it is doubtful that any of the BoingVERT jumpers (or any of the top jumpers in the world for that matter) are going to blow anyone away in the weight room with superior strength feats. They do possess high relative strength ratios (more on this topic to come in a bit) but they are not champion power lifters by any means.

The Nervous System

It has been stated that the production of or increase in any style of strength quality (this includes maximum strength, acceleration strength, reactive strength, etc.) begins at the neuromuscular process. The nervous system is extraordinarily important in its overall role in jump tasks. Perfecting the motor pattern of jump-specific movements and achieving true Jump Mastery is based primarily around all the working neural mechanisms at hand. Each aspect of the BoingVERT Jump System will strive to increase the contraction of the important muscle groups at the right instant in time in jumping tasks, increase synergist muscle group activities while decreasing antagonist activity through reciprocal inhibition, and optimize stretch-shortening cycle activity and elastic energy utilization. Overall, the perfection of personal Jump Mastery during the long-term use of the BoingVERT Jump System will be realized to a great degree based on its ability to enhance the efficiency of the neuromuscular system to produce movement in jump-specific tasks.

Relative Power Capabilities

One's relative power capabilities (i.e. power output per unit of bodyweight) have been proven to correlate closely to vertical jump performance. Some research findings have actually concluded that one's power to weight ratio is going to have the greatest impact on maximum speed attainment in jump-specific tasks. It should be obvious that it will take much greater power outputs to move a heavier athlete from point A (plant) to B (take-off) than it will for an athlete of lighter body-mass. Thus, one of the quickest ways to improving upon your jump performance is to rid yourself of additional body-mass that is not contributing to power development for jumping. One look at the top jump or speed athletes in the world (think of any of the top dunkers of BoingVERT or an athlete like Usain Bolt) and you will visually realize

that they are not carrying around a lot of extra body-fat. There is some conflicting research as to the exact value that one's body-fat should be in order to jump optimally but a good generalization is that it should be less than or equal to 8-10% for males and around 15-17% for females. However, there are numerous ways to test body-fat levels and all have varying degrees of error in their measurement. Overall, decreasing body-fat can be a legitimate goal in and of itself when attempting to optimize jump performance. That said a minimal amount of body-fat should always be maintained (5% for males, 12% for females). However, these values are very rare and rather unlikely in the majority of individuals. If you are relatively untrained, you are likely to see a gain in muscle mass and a reduction in body-fat through the course of the BoingVERT Jump System. The program's umbrella goals are not necessarily centered on this but it is a positive by-product that often happens in athletes who are in this type of state (untrained, etc.). If you are an experienced athlete and/or someone who has been training consistently for an extended period of time, it will be more difficult to achieve this same body composition goal through the progressions in the program. If you fit into this latter category and feel as though you will need to lose a significant amount of body-fat (i.e. that you need to lose 3% or more) in order to optimize performance, then you would be best advised to focus on that goal (loss of body-fat) for the short-term by increasing energy expenditure (calorie reduction/restriction along with cardiovascular endurance training) to help increase your fat-free mass that you are carrying. Once your body-fat gets into a more productive range for optimal jump performance, it will be a better time to complete the BoingVERT Jump System in its entirety. More discussion of this topic will take place later in this manual.

Key Muscle Groups

When looking at the research done on jump coordination and the numerous investigations into why people may jump the ways that they do; we quickly realize that some predictable patterns of muscle contributions are likely to take place. These predictions will allow us some insight when designing training programs specific to increasing jump performance but also should be taken with a grain of salt as oftentimes these studies have been completed on non-human participants (i.e. computer simulation models). However, because of physical differences when working with humans, each individual will have slightly different contributions from each muscle group and/or joint area, as well. This is to be expected and is part of the nature of the beast when working with human subjects. That said the BoingVERT Jump System was designed with exercises that will work to enhance the force-velocity characteristics of the key muscle groups in precisely coordinated fashions

(i.e. the right muscle groups being activated at the right time) that will directly carry over to jump-specific movement patterns.

In addition, different jump-tasks themselves will require different contributions from each of the muscle groups that are stretching and shortening in order to produce movement. For example, a standing countermovement jump is likely to require more quadriceps contribution than a running approach jump which is likely to be more posterior chain dominant. In the same token, just because an athlete may be a great vertical jumper doesn't mean that he/she can leap forward well or achieve high horizontal velocities to carry over into an effective approach sequence (such as approaching a basket to dunk, etc.). Finally, there is the idea of bilateral deficit which suggests that bilateral jump performance may not be associated with unilateral (one-leg jumps) jump performance and vice versa. Thus, we immediately see the need for unilateral-specific training methods. Overall, according to the concept of specificity, we must train each movement in a slightly different fashion. The BoingVERT Jump System was designed to make you a better all-around jumping athlete (versus just trying to make you jump higher out of a countermovement jump). Thus, you will see that this idea is very prominent in the exercise prescription throughout each phase of the program. Jumping will take place with exercises completed in a purely vertical fashion, vertically with an approach, off of one leg, and horizontally. Thus, no matter what your sport-specific jumping needs may require, you will improve upon them greatly through the use of our program.

Jump Styles

Research and analysis has proven that athletes with different physical qualities are likely to perform movements differently based on their personal strengths and weaknesses. In addition, their levels of proficiency may be enhanced in one type of jump task versus another. For example, think of an athlete who may be more heavily muscled. They are likely to perform better when completing a jump task that requires less overall speed of movement (such as a slower SSC task like countermovement jumping or jumping from a standstill horizontally). This is due to their leverage characteristics and strength qualities that are typically present in this type of jump athlete. In contrast, think of a leaner or more slender athlete. These athletes will traditionally be more proficient when jumping in a very dynamic style of movement (such as a depth jump or an approach jump). This again is due to the athlete taking advantage of his/her own personal strengths. Of course, there are always going to be exceptions to these general rules. And bringing up this point is in no-way saying that just because you are good at one style of jump right now, you will never be good at the other jump tasks. With adherence to this program, your

improvement in all jump tasks will improve drastically as it is bound to make you a more efficient jumper overall.

Gender

Research has shown that both males and females can expect to see similar results from vertical jump enhancement programs. Even though female athletes have lower force outputs and cross-sectional muscle size, many of the important physical traits specific to vertical jump performance are similar to their male counterparts.

Research shows that women jump as quickly as men do and develop force at a rate that is similar to males. Thus, a female athlete who has similar circumstances (training history, level of mastery, room for adaptation, etc) as a male athlete will be able to see the same types of changes in their personal Jump Mastery and ultimate performance. However, females have been shown to have an increased likelihood to some jumping-related injuries such as non-contact injuries at the knee. This is due to numerous differences that exist between females and males. In any event, it is even more important for female athletes to focus on proper landing positions at all times throughout the program.

Genetics

We won't dance around the issue that many of the top performing jumpers of BoingVERT hit the sperm lottery to a little greater degree than some of the rest of us. However, that's not to say that they don't work hard to perfect their craft. In fact, in most cases, these athletes are who they are because they outwork many of the rest of the athletes walking the earth. One's genetics will determine very important jumping variables such as leverage characteristics, muscle fiber composition, and some components of the nervous system. However, the fact that the BoingVERT jumpers are genetically endowed over some of us, it also doesn't mean that we can't learn anything from the way that they move, execute, and perform. If we can't learn from the best of the best, then who should we learn from?! That all said, every athlete has the ability to improve himself/herself and his/her jumping abilities. This idea applies no matter how genetically endowed you are. Now, you may not have the capabilities to ever achieve a mid-40 inch vertical or throw down crazy dunks, but the BoingVERT Jump System will still help you raise your jump game to the next level and take you closer to walking the sky than you have ever imagined.

The BoingVERT Philosophy

After careful examination of the pertinent scientific research and the phenomenal jumpers of BoingVERT, we have to take a further look at some proven training concepts that are well-established in any great training plan and the use of these concepts in the BoingVERT Jump System is no different.

Optimal Performance

We are not chasing fatigue, we are chasing performance. Many programs will preach crazy high volume or intensities knowing full-well that the majority of athletes walking the earth can't complete a full work-out let alone an entire training phase. We are not trying to run you into the ground, make it impossible for you to go shoot buckets with your buddies, or have trouble getting up off the toilet. We are looking for optimal performance. It is through the unique formula that BoingVERT is bringing you that we can ensure just that. We will make you work hard but also smart.

Intensity

As mentioned before, speed kills and is of utmost importance in the BoingVERT Jump System. On that same note, perfection of a movement at slow velocities will not result in increased performance or perfection of that same movement at high velocities. Thus, every repetition of every set must be your all-out effort. Get yourself in a heightened psychological state to make each repetition be like your last! That means putting the intensity pedal to the floor from the moment that the work-out begins.

Progressive Overload

The only way the body can adapt is by requiring it to do things that it isn't yet accustomed to through overloading certain aspects of its current movement or strength qualities. Each phase of the BoingVERT Jump System is designed to do just that. It will help provide a significant amount of eustress (i.e. good stress) on the body so it can grow, repair itself, and improve its performance. Overtime, this exposure to stress will require the body to function at a higher level and it will then be time to move onto addressing a different component important to your jump performance success. This is what you will notice when you look at the week-by-week plan laid out for you by BoingVERT.

Specificity

The Principle of Specificity, referred to as the SAID Principle (Specific Adaptations to Imposed Demands), forms the foundation of all training for the attainment of greater performance in a specific movement such as jumping. This principle calls for training to resemble that which we desire to become better at. Research has shown us that different types of training program will produce significantly different effects on actual sport task performance. The people here at BoingVERT know this and will help you take full advantage of the training protocols that are specific to you jumping higher as that is what it's all about! Thus, the exercises employed in the BoingVERT Jump System are specific to aspects of jump tasks in their: type of muscle contractions, range of motion, movement patterns, movement velocities, and muscle recruitment.

Mentality

You must believe. We are talking belief in the science, in the program, and in you. Trust that you are being placed in the best possible path for achieving your goals and you will go there. It's important that you approach each day with complete and deliberate intention of continual improvement towards perfection. You must place all of your focus and intensity on each everything you do in your training session. Leave your troubles in a different place for that hour while you are training so your path for enhanced performance receives your sole concentration. It will take some practice to do this, but once you are able to harness this power within yourself you will notice that nothing will stand in the way of you and your goals. On that same note, no talk about mentality would be complete without addressing the use of visualization in one's plan to increased performance. You have probably heard the old cliché that "whatever the mind of man can conceive, he can achieve." Or, "whether you think you can or you think you can't, you are right either way." These clichés hold their weight when we begin to look at athletes increasing their jump performance. If you want to jump higher, you must first see yourself doing it. Your physical training time is limited to maybe three to five hours each week depending on the given phase of the BoingVERT Jump System you are in. However, anytime that you are not training you can still be taking yourself a step forward by seeing yourself performing like you never have before. It is important for you to make the images in your mind as vivid as possible. See everything that you will see during your training session, hear the same sounds, take in the same smells, and actually feel each piece of the training session. Put yourself in the state of achieving your goals and jumping higher than you ever thought possible. Once you do this in your mind, to fully bring life to entire scenario, you must feel the exact same way that you will when you do jump and perform in that enhanced fashion. As silly as it sounds,

this will make it part of your life's coming attractions. After you come out of the visualization session, walk around in your everyday life with that renewed sense of purpose. Have unwavering faith that you will achieve your goals and they will surely come to pass for you.

The BoingVERT Program Breakdown

Testing

The BoingVERT Jump System will call for testing to occur, at minimum, at the beginning of the program (pre-test) and at the end of the program (post-test). However, there will be times during the program, especially during the Jump Mastery Phases that you will be instructed to jump towards reaching an overhead goal. The use of a Vertec or another similar vertical jump measurement system will be extremely helpful in this regard. If you do not have access to a measurement system like this, do not worry. You can also use a wall or backboard. Simply measure the height of your reach when standing flatfooted with one arm extended overhead. Then jump and measure the height that you touch when jumping in the specific fashion listed. Subtract the height of your reach from the height that you touched during your jump performance and you then have the quantitative value of your vertical jump in that type of jump. You will see a log at the beginning and at the end of the program for the types of jumps that you will be instructed to test on.

Warm-up

It has now been proven numerous times in research that extensive static stretching prior to jumping tasks decreases one's ability to attain maximal performance measures. Thus, the BoingVERT Jump System calls for a more dynamic and active stretching protocol as part of its movement preparation period prior to every training session. This movement preparation period is very important if we are going to completely optimize our performance during the exercise execution to come. You should take this period very seriously as it will begin to lay the foundation for proper movement mechanics and the appropriate warming of the involved musculature. In addition, it's important during this time to get the nervous system firing at its highest possible rates to help increase the likelihood of achieving neuromuscular efficiency.

Cool-down

The BoingVERT cool-down period will consist of general static stretches for the entire body. If one has access to a foam roller and wishes to perform self-myofascial release instead this should be done during this cool-down period. Either method of choice will help to return the muscles to their normal resting lengths and aid in igniting the recovery process. The importance of this cool-down period may look to be very minor. However, it will greatly aid in the body being physically prepared to participate in the next work-out to come.

VITAL:

**THE COOL-DOWN EXERCISES ARE ONLY FOUND AT
www.BoingVERTJumpSociety.com**

Landings are Key!

One of the main things that make the BoingVERT philosophy different from many other programs out on the market is its emphasis on force absorption in jumping. Because of this focus, proper landings become of utmost importance to us. Efficient landings will allow for optimal movement to occur as well as proper progression to take place from phase to phase in the program. Thus, it is extraordinarily important that you focus on becoming better at the landing phase that is present in any of the exercises or jumps that we do. Because of the physiological mechanisms in place, this focus will greatly carry over to increased jump height and performance. When landing from a jump or preparing to plant and take-off, we want you to attempt to assume a pre-landing body position before your body touches ground (think of a plane enabling it's 'landing gear' before it reaches touchdown). This pre-landing body position as well as maintaining posture, balance, and stability after the ground contact is key. You should learn to land on the balls of your feet (and have the majority of your weight balanced on the front two-thirds of your feet) with your ankle dorsiflexed (you should not be on your toes) and with slight flexion at all major joints (hips, knees, ankles, and trunk) involved upon landing. The shoulders, knees, and toes should be in alignment and form straight lines of force down into the ground. All of this in combination will allow for the quickest absorption rate, lowest ground contact time, and most rapid recovery of energy which will carry over into greater jump heights when you take-off again. If performing a single-response exercise (i.e. one that doesn't require you to jump again forcefully after landing), you should always stick and hold the position for at least 3 seconds unless otherwise noted. In these moments, you can then check your body position and adjust as necessary if joints are not in proper alignment or if you are not stable for some reason. This feedback will allow the proper landing technique to continually become part of what your body wants to do in each repetition you perform.

Lower Leg

The lower leg is a very important piece of the jumping puzzle. This is of even greater importance when we begin to look at the attainment of greater performance in more dynamic jump tasks such as an approach jump or running vertical jump. Even the greatest of jumping power capabilities from your knee on-up (i.e. in your hips or thighs) will mean very little if it cannot be transferred to the ground. Think of a high horsepower car with flat tires; it isn't going anywhere very quickly no matter how

loud the engine roars. Thus, it is important that we prepare the lower leg for greater force absorption and stabilization so that ground contact times can be reduced and our jumping power can be optimized. Not only is the lower leg important for Jump Mastery optimization but also for injury reduction. The lower leg can be a common area of injury such as ankle sprains or shin splints. You should perform this simple plan on a daily basis (unless otherwise noted in the phase plans) to increase lower leg strength and reduce injury likelihood.

<i>Exercise</i>	Sets	Reps	Rest	Notes

VITAL:

**THESE LOWER LEG EXERCISES ARE ONLY FOUND AT
www.BoingVERTJumpSociety.com**

Core

Many sport scientists have often pointed out the importance of the core region for dynamic movements. A strong core will lead to ideal biomechanical and neuromuscular efficiency as we move and allow for optimal levels of acceleration, deceleration, and dynamic stabilization during jump-specific tasks. Many people automatically think of the abdominal region when they hear the word “core.” However, the posterior side of the trunk (i.e. the musculature of the lower back) will be just as important when it comes to the purpose of the core in increasing jump performance. A weak core is often one of the main problems existent in inefficient jump patterns and can cause a cascade of negative side effects throughout the entire body. When we look at the core and its involvement in jump-specific tasks, we realize that the degree of efficiency will be dependent on its functional interaction with the muscles of the hips and remainder of the lumbar spine. Thus, the work we do will target this interaction and integration between these areas of the body. Specific core work will be completed in Phases 1 and 4 of the BoingVERT Jump System. Additional core work is not needed (or advised) during the other phases of the program as all areas of the core region will receive plenty of stimulation due to demanding and intense nature of the prescribed exercises in those phases.

Upper Body Training

Because this is a vertical jump-specific training program, no upper body plan has been included. Obviously, the upper body will play a decreased role in comparison to the entire core and lower body musculature. That said efficient actions of the arms can increase jumping performance considerably. This idea is emphasized during the descriptions of each of the exercises later in the program so be sure to pay close attention to what you should be doing with your arms during your training sessions. If you would like to perform upper body-specific training of any sort it can be included on the days opposite of your jump-specific training sessions. If you elect to do this, it becomes imperative that you are cognizant of the way you are feeling throughout the training week as if you feel as though your recuperative powers are on the decline, the first thing to be eliminated from your overall training plan should obviously be your upper body days (if your true goal is to walk the sky!). Your body doesn't realize if it needs to recover from the stress of an upper body session or a lower body session; it only knows that it needs to recover and attempt to adapt. Thus, if it doesn't possess the recuperative reserves to do so at the time it will quickly lead to overtraining and stagnation of the entire program.

Notes about Endurance Training

The BoingVERT Jump System advocates against the use of endurance training done concurrently with the training protocols that we advise throughout our program. Endurance training will often drastically hamper the training adaptations that we are attempting to elicit through our specific protocols. However, based on what we said earlier regarding relative power output and being at an optimal body composition, many athletes feel as though their body-fat levels are too high. If you feel as though you are over-fat for optimal jump performance, then you obviously need to burn more calories than you are consuming. An efficient way to do this is through the use of cardiovascular endurance training. However, because of the detrimental effects that this type of training can have on vertical jump performance, we will advise you to wait to begin the BoingVERT Jump System until you have lost the desirable amount of body-fat to put you in an appropriate body-fat range. Thus, use the time until that point to focus on losing the body-fat through a combination of endurance training and diet restriction.

Footwear

During the execution of jump tasks, movement is obviously dictated by the way that you put force into the ground. Thus, our footwear and the way it interacts with the ground are going to have a huge impact on our ability to jump most optimally. Simply put, most shoes out on the market are not good for jump performance! You

should select a shoe that is light, allows your foot to move freely, and that gives you the ability to 'feel' the ground. This added sensory response from the foot will increase proprioception which will allow for quicker ground contact phases and greater overall recruitment of the appropriate muscles. In addition, the shoe that you utilize should provide a fairly neutral ride and avoid over-pronation (turning of the foot) as this will greatly change landing and take-off mechanics. The amount of cushion is important as you want your muscles, tendons, and entire kinetic chain to absorb the forces at the ground...not the shoe. Thus the shoe you select should not have a ton of 'give' as that will result in too much energy dissipation when you land or try to jump. Finally, the heel should not be overly thick and/or heavy as the optimization of most jump tasks and exercises will require you to focus on keeping the heel from touching the ground during their execution. Based on that full description, most running shoes are obviously off-limits for jump performance training. In addition, most basketball shoes don't even fit the bill either. You are best off choosing from shoes that are made specifically for training purposes. The only catch to this is if you are a basketball player; then you must become accustomed to utilizing the shoes that you will wear during your sport. However, we implore you to investigate basketball shoes that are more closely in-line with those that fit the above ideals. Overall, it goes without saying that the shoe should be comfortable and you should enjoy wearing it.

Training Surface

The compliance of the training surface will have some impact regarding the working effect of the training exercise as well as the adaption response (the types of results) that you receive from the program. In most cases, you should strive to train on the surface that you will play on. In most cases, like with footwear, as long as an athlete's landing mechanisms are efficient and consistent, an athlete will be able to utilize a harder surface for the majority of his/her training. This harder surface will actually lead to greater benefit in the long-run as it will allow for greater degrees of energy storage throughout the body. Blacktop and hardwood floors are usually not a problem for most athletes and are the surfaces that many jump athletes often jump on during their sport tasks. Thus it would follow with the idea of specificity that these surfaces be utilized for the majority of your training purposes. Other surfaces such as sand, rubber flooring, or grass will allow for greater dissipation of forces, longer ground contact times, and some leakage of energy; all of which is undesirable. That said if you are starting to feel extra stress in your joints (specifically in your knees and ankles), it may be advisable to utilize a more absorbent surface for a number of sessions to allow your body to adapt more fully. However, if that occurs we would advise you to pay more close attention to your

overall landing technique and biomechanical position to ensure that you are optimizing both.

Sticking to the Plan

As mentioned prior to this point, it is imperative that you stick to the plan to a “T.” Every exercise on every day of every week serves an ultimate purpose. Each work-out in each week builds upon all others that have come before it in a very well thought-out, sequential manner. Thus, if you miss a training session, do your best to make it up later in the week and do NOT move on to the next week’s scheduled work-outs until they are completed. Do your best to stick to the plan and you will see the results that you desire.

Rest

As stated earlier, in order for your body to adapt it needs to be exposed to greater stresses than what it is used to. However, the body will actually adapt and compensate for this added stress during your times of rest. Thus, adaptation cannot occur if you are not getting the rest that you need to. The CNS (central nervous system) is in charge of this and if it is behind in its ultimate energy reserves, you will not make the gains that you are hoping for. That said, if you are simply “not feeling it” on a given day, it will be better to pack it in for the day and come back the next day to make things happen. This is one of the reasons that the training logs have a place for you to record your sleep levels as well as your mood. Strive for 7-9 hours of sleep each day. You should be aware of any trends in your sleep schedule and how it may impact your given performance on that day. The same thing applies to the mood. If you are consistently training in a sleep-deprived state or angered mood and you realize that it is detracting from your abilities, something needs to change sooner rather than later.

Individuality

Many people will ask if and how a general cookie cutter program will work for them. The concept of individuality is one that runs rampant throughout the sport training industry and for good reason. Obviously, the human body is a very complex organism. If you have the resources (time, money, and most of all a qualified individual to help you) to hire a private jump training expert to assist you in the design of an individual-specific training program designed around your jump performance goals, we say go for it. Many athletes who are the highest levels of

jump mastery (such as many professional dunkers, volleyball players, and track & field jump athletes) will often have these types of individuals in their corner. However, for the people who don't necessarily have these liberties, the BoingVERT Jump System will help you close the gap on your room for adaptation and take you closer to the highest imaginable level of your personal jump mastery. BoingVERT was developed around what scientific research has shown us over decades to work for athletes of every level and it is bound to work for the majority of individuals who hold it in their hand and read its contents now.

The Magic Question

By this time, I am sure that you are all screaming "shut up already" at the manual in front of you and just wondering one thing, "how much can I expect to gain?" Unfortunately, there is no way to answer that question accurately. The answer depends on countless circumstances. Each individual who does the program will display a different rate of change, degree of change, and efficiency in responding to the program. These factors are based on previous training history as well as genetics and work ethic. Thus, some of you will gain 3 inches while others may gain 10 inches. In any event, we can tell you this: you WILL gain and get yourself closer to limits of your jump mastery potential. We can make this promise as the program is based on sound scientific evidence proven with every type of population sample. Quite frankly, any program that promises a certain amount of inches is simply lying to you in order to get on their good side. They don't know how much you will gain; just like we don't. But if you apply yourself with the deliberate action towards concentrated improvement in the BoingVERT program, you will be more than pleasantly surprised by the changes you make and the new heights that you are reaching at the completion of the program.

References

The following works and their content were highly influential in the formulation and development of the BoingVERT training system. Many heartfelt thanks and gratitude goes out to each of these authors for forever changing the scope of the training methods incorporated to enhance vertical jump performance.

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