PRESENTS

JACOB HILLER

HOW TO JUMP HIGHER

IN 45 MINUTES

Recently featured in

ESPN

and

Fadeaway Magazine

ADD INCHES TO YOUR VERTICAL INSTANTLY IN WAYS THAT YOU NEVER THOUGHT POSSIBLE!

A Step-by-Step Guide Created by Jacob W. Hiller

Creator of The Jump Manual

ATTENTION – Please give me your feeback and I will clarify anything on this manual for you.

Add your comments or requests here, then I'll update the workbook, and send you the updated copy.

- Please also leave your testimonial☺ -

Click here: Jump Higher in 45 Minutes Feedback

Is it really possible to improve your vertical instantly?

Short answer … yes, if it weren't possible to effectively implement the following methods and to yield results, I'd be writing about something else that was effective!

Short term improvements will be based on your ability to use the strength and speed you already have efficiently, rather than building new speed and strength which takes time.

Moreover, I have received hundreds of testimonials on these techniques alone, as well as garnering the interest and attention of some of the world's greatest athletes, magazines, and sporting organization.

A word of caution!

While it *is* possible to make significant increases with these methods (especially the form section), they should play a "complimentary" role to a more focused and targeted training regime.

Your greatest gains are going to come from a comprehensive approach and attacking your training from every angle possible.

This is the type of approach we have implemented in The Jump Manual.

It works, but don't take my word. Try it now, and see if you're not jumping higher – You have nothing to lose.

Let's get started: Lace 'em up tight!

I'm serious about lacing up tightly. Some players lace up so loosely and their feet will slide around within the shoe so they lose a slight amount of reactivity.

Any amount of "sliding" you do in your shoes diminishes the power you put into the ground. So lace your shoes up tight enough to secure your foot tightly into your shoe. You will notice being slightly more reactive cutting and even jumping from a run, especially if you lace up habitually too loosely.

A few words about footwear…

The most important part of a shoe is how well it fits.

The only real advancement shoes have made that make a difference is an added "carbon shank" that stiffens the sole of the shoe. This makes the foot a stiffer, more reactive lever in applying force into the ground and supports your foot muscles during plantar flexion (driving your foot into the ground). Several shoes are making stiffer soles but Hyperdunks, Kobes, and several others actually have the carbon fiber shank. Most basketball shoes have stiffer soles, so as long as you are not using a flimsy soled walking or running shoe you are probably fine. Don't overestimate the difference this can make, it will probably be unnoticeable, but the combined effect of everything in this document will add up.

Lighter shoes feel quick and nice, and really that *feeling* of lightness is going to be

better than any actual reduction in weight since the actual amount of reduced weight is not significant.

Feeling good in a shoe (aside from the fit) is important, and the boost it gives your psyche can actually be meaningful.

In a nutshell this is the importance of footwear for the purpose of jumping higher. If you want to read some extended details on footwear choice for jumping check out my post here:

Jump higher with the right shoes. Fact or fiction?

Prepare your body for maximum effort contraction, unhindered mobility, and reactive tendons and muscles.

Improve muscle tissue quality and innervate the CNS.

Foam rolling

Foam rolling is a fantastic way to enervate your central nervous system, improve tissue quality, and increase blood flow. Foam rolling can even remove muscular pains and trigger points instantly.

You can get a foam roller cheap at Walmart, or at a sporting goods store. If you don't have access just Google "homemade foam roller" and there are several ways to make them.

Do it all - Start with the back, move to the glutes, hamstrings, calves. Cover the entire posterior chain. Move to your anterior tibialis (shins), quads, abs and chest. Roll over to your lats and arms.

If you're new to foam rolling just do it… it works – I promise!

For video instruction on using a foam roller please watch this video:
http://www.youtube.com/watch?v=8caF1Keg2XU

Prepare the "prime movers" with dynamic warm-up movements and "glute activation"

Dynamic movements activate our muscles through the same range motion that we intend to use for our sport. The warm up also primes the vascular system allowing increased blood flow and fuel to our muscles. Finally glute activation activates muscles that may lie dormant, and allows greater utilization for the vertical jump.

"Xband walks" are used to enervate the gluteals, "wake" them. This readies the gluteals to fire for maximum hip extension during the vertical jump.

Each warm-up should have no more than a 10 second break.

Here is a sample warm up routine. The key is activating the muscles and warming the tissues that are the "prime movers" in the vertical jump. The warming of the body dilates the vascular system which increases blood flow and ability to perform.

? – Can you use your own warm up?

As long as it hits the prime movers as you see in this routine.

? – This warm-up fatigues me. Can I reduce the number or reps?

Yes, as long as your body is still breaking a sweat.

High Knees	20 ground contacts
Kick Butts	20 ground contacts
Karaoke	20 ground contacts
Front Leg Swings	15 swings X 2
Side-side Leg Swings	15 swings X 2
Xband Walks OR *Glute Bridges*	10 steps X 2 **OR** 12 Bridges
Toe touch to Glute Squeeze (no pause at the bottom)	10 X 2
Walking Lunges with a Twist Toward Forward Knee	10 X 2
ATG (butt to the ground) Bodyweight Squat	10 X 2
Ankle Rolls	30 seconds each ankle
Arm Swings front to back	15 X 2

Stiffen the tendons and condition the CNS for reactivity

Stiff doesn't mean that you are cold and sore. By stiff we mean that the activation of the muscles and tendons at the time of ground contact is optimal for returning the energy put into the ground.

If your muscles and tendons are soft or flat like a basketball – that's how you'll bounce. Stiff reactive tendons allow you to return the maximum amount of energy RIGHT off the ground.

Jump roping OR bouncing is one of the easiest and most effective ways to condition this stiffness.

Start with 45 second of jump roping or bouncing with a focus on minimal ground contact time.

Then do 3 sets of maximum reps for 20 seconds.

You should feel slightly more reactive off the ground.

At this point in the workout you should be feeling that your muscles are warmer, more elastic, and your body is ready to start moving at maximum speeds.

"Miracle Static Stretches"

When a muscle contracts or shortens, the antagonist muscle lengthens. If the antagonist muscle fails to lengthen properly this causes what I call "interference."

When you execute a vertical jump there are several muscle groups that you don't want to activate, AND the following static stretches will help those muscles to relax.

Static stretches have received a bad rep lately in forums but static stretches have many positive uses, including improving range of motion, tissue quality, muscle length, and blood flow.

Psoas stretch

Stretching the psoas lessens resistance during hip extension (a vertical jump movement).

- Assume the lunge position
- Tighten the back glute
- Drive your hips forward
- Lean back and twist
- Create the hip angle you seen in this picture.
- Hold the position for 20 seconds.
- You will feel the pull through your groin and over the front of your hip.

Anterior tibialis stretch

Stretching the anterior tibialis lessens resistance when you drive flex your calf.

- Sit on your heels.
- Lean slightly back
- Feel the stretch through your shins.
- Hold for 20 seconds.

Abdominal stetch

This stretch facilitates spinal retro flexion (bending backwards) as well as stretching the psoas and activating the glutes.

- Start from lying on the ground.
- Place your palms above your head.
- Contract your body into position.
- Hold for 15 seconds.

Note: *While executing these stretches don't allow the body to cool down.*

Some cheating …

The following stretch doesn't actually make you jump higher but they do increase your standing reach as it allows your arms to reach higher into the air.

■ Lats Stretch

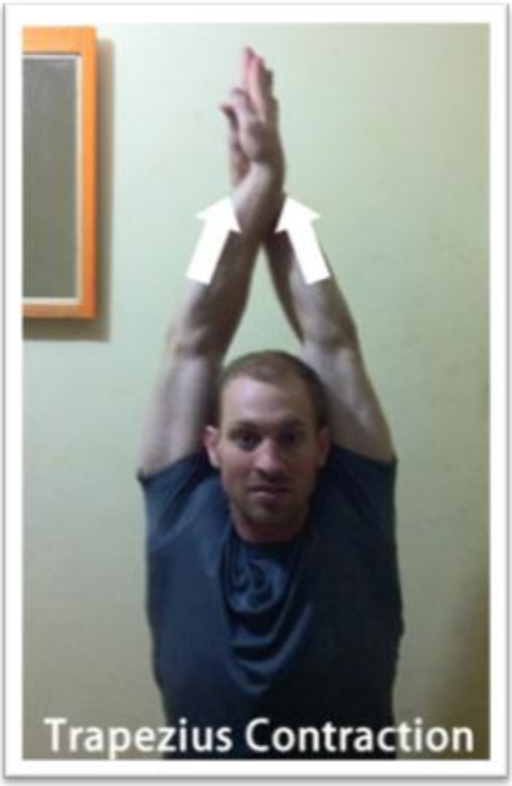
Stretching your lats will loosen the muscles that restrict upward reach.

- **Stand perfectly straight**
- **Bring one hand behind you head.**
- **Use your other hand to pull the arm in the opposite direction.**
- **Feel the pull on your side (lats).**
- **Hold for 20 seconds.**

■ Trap Contractions

This activates the muscles that left the shoulders and arms and allow you to reach higher.

- **Place your arms in the position pictured here.**
- **Squeeze your arms together and contract your trapezius muscles (muscles around your neck)**
- **Pull your shoulders upwards and together and reach higher in the air.**
- **Hold for 20 seconds.**



Now we'll talk about form. For an introduction to the importance of form, check out my video here: http://www.youtube.com/watch?v=Gghj4UduY30

Speed of approach and successful transfer of momentum

Think of a ramp. The faster you approach the ramp the more air you get. Increasing the speed at which you can perform the approach and effective transfer of momentum will result in a greater jump height.

Many jumpers make the mistake of coming to a complete "jump stop" before executing their jump. This serves mostly to remove the built up speed and momentum of your approach.

Increase your speed to the maximum controllable velocity. If you are approaching so fast that your form falls apart you should reduce the speed and work up to higher velocities.

The right speed will yield a higher jump.

The "penultimate" step – Second to last step – The trampoline effect

In track and field events such as high jump, long jump and triple jump, the sequence of steps is precisely calculated. Part of this sequence includes lengthening the stride of the second to last step AND shortening the stride of the very last step.

The long stride lowers the center of gravity and "loads" the body to jump while still maintaining stride and speed. The shortened step serves to begin elevating the center of gravity and initiating upward momentum. This upward momentum is then joined by the synchronous execution of the vertical jump.

For examples and a video demo check this video:
http://www.youtube.com/watch?v=czwYS6feqEQ

While in track and field this "penultimate step" is extremely calculated because it's ALWAYS the same. In basketball and other sports an athlete must become more dynamically able of executing the technique. The distance to travel to the rim, and the timing at which to reach maximum height, is always changing.

If you overdo this step it will slow you down, lessen your momentum, and prove to be counter-productive. Some athletes can execute this naturally and may already be doing so. For others practice and awareness must be developed over time.

The easier it is for you to execute the movement, the faster you can execute and the greater boost you will receive.

For two foot jumpers, the step before planting both feet is the "penultimate step" and should be lengthened enough to lower the center of gravity.

While both a one foot and two foot approach will benefit from a proper penultimate step, the one foot approach yields the greatest benefit.

Some tips on toe off

Proper alignment not only helps to prevent injury BUT it also allows the power to be properly transferred through your body.

- ✓ Toes and knees should point in the same direction.
- ✓ Prior to making ground contact your toe should be pointed upwards (dorsiflexion).
- ✓ Focus on the initial velocity of the movement. This will help you end with the highest upward velocity.
- ✓ Arms, core, legs should all be moving upwards at the same moment.

Check out this video for details: http://www.youtube.com/watch?v=bo6m9oziL3g

Leaning too far forward will slow the execution of your vertical jump and prevent you from performing a full triple extension. Your chest should only be slightly leaned forward. The line from your head should go down to your knees, and then to your toe.

Keeping your chest up will also place your body in better alignment to

transfer energy. If you are leaned too far forward your body will fold slightly at the midline as lose power rather than transferring it through your core and propelling you into the air.

Don't reach forward with your lead leg, it breaks your speed, slows your execution, and ruins your "line of power." Long jumpers have a tendency to reach for the board which results in a horrible takeoff. While it is less common in basketball, it happens. You may have seen or experienced accidentally reaching for the last step as you went for a dunk or layup and had all your power slam down on your foot and your entire knee wobble. This is because the power is not transferred properly and smacks at your lower leg.

Trick your body into jumping higher with "post activation potentiation"

Lifting heavy weights explosively trains your nervous system to recruit more muscles and send stronger neural signals.

When you lift heavy weights and then perform a vertical jump you will "steal" some of that neural pattern and end up jumping more explosively

Rather than do a squat, I've found doing jump squats with heavy dumbbells to yield greater sport specific activation.

See if you can do 5 explosive jumps in with ½ your 1RM.

Follow up immediately with standard sport-specific jumping.

Use the breath to jump higher

Ok, now you're thinking I'm going too far, right?!

Power lifters use the breath to squat, deadlift, and bench press higher weights.

Martial artists use the breath to punch and kick harder.

Jumpers can use the breath to increase their vertical!

The principle is simple.

If you exhale at the moment of impact, your body and core will lose its stiffness and you will lose some energy return.

Instead, hold the breath at the time of impact and allow it to help keep the core powerful and reactive.

Try it… you may find you already hold your breath, but if not you might find yourself jumping a little higher.

Palm the ball – even with small hands

It surprises me how many people can't palm a ball. My hands are the size of my wife's (who is 5'4). Embarrassing right? But my stubby hands can still palm a ball off the dribble.

Here are a couple of tricks: (*You can also find this in an article I published in* Fadeaway *magazine – You can get it in Barnes and Noble – Europe only.*)

Palming a basketball will allow you to control and protect the ball with greater ease. If you are close to dunking, palming the ball will also allow you to dunk if you can at least get one wrist above the rim.

You should know that not every basketball is created equal. Some balls are naturally stickier, have deeper seams, and are easier to palm. However, with the tips below you will eventually be able to palm almost any basketball easily.

Here are the keys you need.

1. **Grab the ball across the seams, *not* with the seams ➔ Technique**
   Your middle finger should be in one groove and your thumb should be extended opposite of it in another seam. Using these grooves gives your hands a slight leverage advantage to palming the ball.

2. **Condition your hand to the ball ➔ Instant stickiness**

A dusty ball, or a sweaty or too dry hand, will make it nearly impossible to palm a basketball. I'm sure there are powders and products that give you instant stickiness with the ball. If you have them, use them; if not here is a dirty trick you can use.

Put your hand under 10 seconds of very hot water (don't burn yourself). Then put it directly into cold water for 10 seconds. The hot water improves the elastic quality of the skin, and the cold water contrast closes up the pores. The result is a stickier hand that can make palming even a stubborn ball easy.

If you can't do this ➔ Squeeze the ball back and forth from one hand to the other until your hand feels sticky to the ball. It may take 20 – 30 squeezes.

3. **Strengthen your hand.**

There are a variety of tricks you can use to strengthen your hand. The 2 following exercises are very simple and don't require equipment.

a. **Static squeezes on the basketball:**

Using step 1 above, put your hands in a position to palm the ball. Place your other hand on the basketball to apply pressure against both hands. Squeezing only with your fingertips, squeeze the ball with both hands AS HARD AS YOU CAN. Hold this maximum squeeze for 10 – 15 seconds. Repeat 3 times and do this twice daily. This is a great exercise because it increases finger strength at the exact position needed to palm a basketball.

b. **Fingertip pushups:**

This is pretty simple. Do regular pushups, but with your fingers spread wide and on your fingertips instead of your palms. Do 3 sets of as many pushups as you can do. If you can't do any, start by doing pushups from your knees (girl pushups).

The strength at your very fingertips is most important for palming a basketball. Over weeks and months of doing these pushups you will find palming a basketball much easier.

The mentality

Last, but surely not least, I want to talk to you about the "mind set" of a performance.

Of course … you want to be excited, however, although you want to be excited and have the energy levels necessary for an "all out effort", you don't want to be over excited so that the overflow of energy provides "interference" to your jumping form.

In a study on muscular strength, participants doing a biceps curl were able to curl more if they had been first "slapped" on the arm. It appears that their central nervous system was "awakened" by the pain, and they were able to perform at higher levels.

Bodybuilder Ronny Coleman uses this same technique to take his training to higher levels and allow his training partner to smack him on the neck.

DON'T HURT YOUR SELF – we are not talking about damaging yourself.

Some athletes use music, or motivation speeches to get pumped. Yet others think about their doubters and haters to fuel their desire to perform.

This is tricky because people are motivated by different things, but you need to find your source of motivation and let it be a constant source of fuel to your athletic drive.

Once you have achieved energy levels, you also need to be envisioning success rather than failure.

What your mind can see, it is much more likely of achieving.
Before you perform don't just imagine your success … but feel it, really see it, the thickness of the air, the thud of your footsteps, the energy in your muscles – provide an outlet for that perfect performance in your mind first.

Conversely … don't imagine failure. If in life you imagine failure more than you imagine success … you're in for trouble!

Hey! It's not working…

These techniques work. But if you find you are not able to put them to work for you, one of the first things to do is **to video tape your form**. This will allow you to assess your progress from a third person point of view. Olympians and professional athletes do this all the time. So should you.

Don't be discouraged if some of this is overwhelming. As you master each step you will find that it becomes natural and easy.

Teach it to others. As you teach the principles, your own understanding will solidify.

Practice, practice, practice … but remember – the higher quality the practice the more rapid the results. If you lack focus and continually practice improperly, then that is the form you will reinforce.

Tools to observe and assess your form.

- **When using my iphone** "in the field" to record form, I play it back with the app called "Video pix" which has built in slow-mo to see your form.

- **For Youtube and internet vids** I use a program called "MySpeed" which allows me to put any internet video in slow or fast motion. I use this program all the time to examine some of the best dunkers' form, to look at a client's form, or just to speed up watching internet instructional videos. Click here to visit the My Speed site.

- **Lastly, I use "Sony Vegas" to analyze form directly from my computer**, and for my "high end" clients I create videos demonstrating their errors, so they can view them.

I hope you enjoyed this!

There is more where this came from. Again, these are techniques you can go use RIGHT NOW. But your long-term success will be determined by a comprehensive approach to your training. **For more information you can go to :** http://www.jumpmanual.com

I wish you the best of success,

Jacob Hiller

About Jacob Hiller

Jacob Hiller is an performance enhancement specialist who has trained coaches in athletes in over 15 countries and in 4 different languages. He has coached amateur, professional, and Olympic level athletes in multiple sports as well as served as a consultant for major sporting organizations in multiple countries.

Jacob Hiller's vertical jump training guide "The Jump Manual" has become widely recognized as one of the most effective and comprehensive manuals of its type. It has drawn the attention of ESPN, Men's Health, Sports Illustrated, and Fadeaway Magazine.