

---

# THE CrossFit JOURNAL

---

## Getting Inverted

Jeff Tucker and Dusty Hyland look at the finer points of turning your world upside down.

---

By Jeff Tucker and Dusty Hyland

September 2011

---



All images: Jeff Tucker

The handstand can be one of the most undervalued movements within the CrossFit community or where sport is concerned. Nevertheless, its application and regular performance for skill sets can produce better movement within any field of sport where athleticism is involved.

To the novice or within our community, the handstand is sometimes seen merely as a basic tool within gymnastics sport—or a cool party trick. Its benefits, for example, include but are not limited to balance, strength, spatial perception/awareness, core-control development, isometric strength development, and so on. And these are but a few fringe benefits from basic skill sets before adding walking drills or ranges of motion with disadvantaged leverage to a handstand.

A large-volume book could be written on handstands and how this basic gymnastics tool can change your daily fitness goals and improve so much of your game. In this series, we will be offering several things to consider as you work at multiple levels to accomplish inverted goals. We'll take this basic movement and delve into load core control via hollow-body bracing in the inverted, locked-out position.

### Strength First

It's important to define some traditions and see why body position is important in inverted, locked-out isometric holds—or handstands.

An old-school handstand is a movement that now appears very outdated. Why? Well, it normally features a large arch to the back, a closed shoulder girdle (the shoulders are not fully open), and toes that are either located over or beyond the head when inverted.

What we would like to see today is an inverted lockout where, if you look down the side of the body profile, you will see toes and ankles over and in line with the knees, hips, shoulders and hands. The modern handstand used today for an inverted position requires understanding of the hollow bracing for this isometric hold.



*While an old-school handstand featured an arch in the back, the modern version uses a straighter body position.*

The hollow is a stabilization of your mid-spine and is not done with enormous energy but rather a simple bracing of the core. This is done with a core contraction that brings the rib cage toward the hip, allowing for good, subtle balance and lock-down of a nice vertical line down the body profile.

---

**What we would like to see today is an inverted lockout where, if you look down the side of the body profile, you will see toes and ankles over and in line with the knees, hips, shoulders and hands.**

---

Normally, you begin with neutral head position until students learn how to control this core bracing, at which point you can allow them to look toward their hands or the floor for a better focal point. Changing the focal point normally allows for better balance once the individual understands that the hollow is working and should be a large part of the movement.

The only caveat to this is that most newbies tend to let go of the hollow brace as they look up with their chin and toward the floor with their eyes. I tell people all the time they must recall that the chin is in some ways connected to the tailbone: the more you raise your chin without thinking of engaging your core while doing a handstand, the more arched your body will become and the less efficient your handstand will be. Remember that you can look with your eyes first toward the ground before ever moving your chin toward the ground when inverted.

One large issue is the basic strength requirement needed for a locked-out inverted hold. You must approach such static holds with body-weight control, so try to limit your beginner's attempts to five-second static holds with rest until basic strength prowess is achieved—or scale accordingly. This is very important and cannot be overlooked or overstated: you need to know if there are issues with strength, mobility or fear. All these things can become a factor and part of a recipe for injury.

Ascertain the numbers for the strict press, kettlebell swing, dead-hang pull-ups, bench press, etc. before getting someone inverted. Have them acquire some upper-body strength for added control in this inverted isometric hold. Then get them comfortable by scaling handstand inversion progressions to limit fear if that's what is required.

We have a great deal of tools we can use for prerequisite strength needs. For your consideration below is a list you could use for strength development for inversion to handstand:

- Active hollow body hold for 20 seconds.
- 10 hollow-to-supermans and back.
- 10 solid burpees with vertical jump and clap.
- 10 seconds in scaled handstand inversion holds.
- 15 push-ups, active body tension, externally cued hands.
- 10-second form frog stand.
- 10 barbell overhead squats.
- 10 thrusters with negative returns to rack position.
- 10 push presses with solid negative returns.



***Handstands require strength. Make sure you have enough before going upside down.***

### Freestanding Handstand With Dusty Hyland

As the squat is to weightlifting, the handstand has been the foundational block in the development of gymnastics and going forward should be seen as a staple in the CrossFit community. The importance of proficiency in the “balanced” freestanding handstand position cannot be understated. We are attacking some very specific skills sets that are absolutely required by CrossFit.

The ability to hold a “balanced” handstand in the center of the room requires strength, coordination, balance and agility, not to mention an applied understanding of body tension and midline stability. My belief is that the handstand rivals the overhead squat in exposing an athlete’s inflexibility and weakness. This point is most readily apparent at the shoulder girdle and at the hip. We are building more efficient human beings, and after a strong dose of CrossFit basics—i.e., squatting, correct form in push-ups (externally rotated and cued hands) and hollow holding—the athlete should be challenged toward an inverted position soon after.



*Once an athlete is proficient, inversions can also be scaled up.*

For the young and old athlete, the handstand, first on a box, then against the wall, in various forms addresses a fear component in addition to the list of skills stated above. Many movements do not do this. The handstand also provides for the athlete a first taste of applied human movement and the concept that all training has a functional use. Have you ever looked at a problem and turned it on its head? Slowly load up the system (the body) hands-first and see what issues need to be addressed. It is incredible for some to be in an inverted position, and for many of those who walk into your gyms, it will be a first-time experience.

Starting with an active lunge position, we can begin to move toward an inverted, extended position with the feet above the head. We know the primary mover or stabilizer in this movement will be the shoulders. You need to know how to lock out and press that open shoulder up as you kick up. Once you go to inversion, you are pressing shoulders, hips and feet toward the sky, which assists in establishing an optimal handstand position.



*Jeff Tucker spots an athlete in an active lunge position that will lead to an inversion.*

The lunge itself must be active, whether it's a standing lunge position or compromised lunge (hands on the floor). Make sure you spot the athlete in the beginning until competency is seen and requirements for safety are met. For beginners, have an exit strategy: reverse-lunge from your kick-up if using the wall, or cartwheel out of it by quickly turning hips in the descent. Some folks forget that the way back down is the way they came up. In our next segments, we will focus more on using the wall and speak on the pros and cons of facing the wall and kicking up toward the wall, as well as how we add ranges of motion.

The handstand should be seen as a resting position. You heard me! When done correctly, it is a balance move that requires much less strength than it seems when you first get up there. Understanding human movement and relating it to optimum performance training is what is at hand here, and exactly what is at the heart of CrossFit. So in a sense the handstand position and skill set apply pure CrossFit methodology—and we have known this all along. For the gymnastics coach and hopefully now the CrossFit trainer, the goal of an optimal handstand position is black and white. When cued and performed properly, the handstand should place the human form into an inverted, dynamically efficient and stable system where balance is the key focus, and strength, while an important factor, becomes secondary.

---

**It is incredible for some to be in an inverted position, and for many of those who walk into your gyms, it will be a first-time experience.**

---

We operate in the realm of the cubit (shoulder-width distance) established with a sound push-up and hollow-body hold. In a perfectly balanced freestanding handstand, the body is stacked vertically. The hands are engaged with the floor, fingers spread wide for stability. The shoulder is open and engaged in extension. The head is in a somewhat neutral position for optimal stability, while the gaze is slightly toward the hands to cue the balance of the



### Points to Consider

- Is the fear factor an issue? If so, ramp up slowly, getting comfort levels up with scales, partially inverted loads on tires, boxes, etc. and eventually kicking up to a wall for five-second holds with perfect form.
- Coaches, be active and helpful in your spotting for newbies. Have exit strategies.
- Gain the basic prerequisites and upper-body strength needed, and scale as needed.
- Learn active lunge positions with active tissue and spotting as needed, standing or bent body with hands on the ground.
- The student should have a clear understanding of locked-out, active tissue as he or she presses the shoulders and feet up toward the sky in inversion.
- Watch the placement of the head and chin; remember the preferred focal point.
- Develop hollow-core bracing: tight extremities, hands as foundations, legs and glutes squeezed together, cubit width of hands, active shoulders.
- Cue fingers spread wide and slightly gripping the floor for a good foundational platform.

athlete and line of sight. The trunk is active and tight, and the rib cage is shortened with the lower back flattened via an anterior pelvic tilt. The glutei are squeezed tight and the hip is open and neutral. The quads squeeze the legs straight and the toes are pointed toward the ceiling for structural integrity and stability.

The body is long and extended, and while all this work is performed you have to learn to breathe. Well, eventually you will begin to breathe.

### Conclusions by Jeff Tucker

Now that you got that, just where does this balance occur?

First, begin by adjusting balance on your hands alone from the top of your wrist crease toward the phalanges or fingers. Think of the palms of your hands working up and down for balance needed forward or back. Begin with small balance-drill sets and increase over time with success and length of balance holds, all the while keeping the integrity of the handstand form in your extended vertical body. Any angles in the vertical line are a big no-no! Keep that nice stabilized vertical form and hollow bracing as you adjust for balance on your hands alone.

Over time, you can begin to adjust with strong shoulders and elbows. It really is that simple. And yes, it takes work and time, but once you dial in the basic strength needed to perform small static holds, great rewards will come.

In our future articles, we will include more details on form development, balance work, walking on hands, straddle presses to handstand movement and much more.

Until then, get your butts tight and upside down. See you on the mat!



### About the Authors

**Dusty Hyland** is the co-owner of DogTown CrossFit Culver City, Calif. By the age of seven, he had started an active athletic regimen that has continued throughout his life. At 13, Dusty gave up a host of other sports to focus on gymnastics. He was a very successful gymnast, and after his father's job promotion and relocation to Northern California, he began to train at Stanford University under two-time world champion Tong Fei. By 16, he had competed at the Junior Olympic National Championships and trained with the U.S. Olympic Team. In college, he competed in NCAA Division 1 men's gymnastics and scored a NCAA record perfect 10 on the still rings. After one more year of competition, he retired due to injury. He then traveled the world starring in a Cirque De Soleil-type live show before settling in Los Angeles and doing some stunt work in films.

He has CrossFit Level 1, Gymnastics and Mobility certificates, and he is an NASM CPT and a USA Gymnastics Coach.



Courtesy of Dusty Hyland

**Jeff R. Tucker**, or "Tucker" to those who know him, is the CEO and founder of Global Sports Xtreme (GSX) in Fort Worth, Texas, and he has a passion for teaching gymnastics. At CrossFit Gymnastics Seminars, he and his staff delve into basic and intermediate gymnastic forms in a lecture setting followed by practical application. Skills are repeated until the student has a satisfactory understanding of how to learn, spot and teach such methods safely. Students are also taught how to scale the movements until they become second nature. Tucker's goal in this course is to aid CrossFitters in using gymnastics for strength development, core control and WOD progressions. Result: the CrossFit community will become more engaged in using one of the foundational blocks for CrossFit workouts—gymnastics.



Jeff Gill