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Bearing the Standards

Jeff Tucker and Dusty Hyland of CrossFit Gymnastics set the standards for basic gymnastics movements.

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All images: Jeff Tucker/Dusty Hyland

A question I am often asked is what are—or what should be—the standards of movements for gymnastics skills we use within CrossFit?

Although we are not being subjected to a panel of USAGF judges under the scrutiny of USAGF standards, we agree that the time has come for some solid standards of movement and judging standards for the CrossFit faithful out there, whether those standards are to be used for CrossFit Games events, grassroots affiliate events or training in general.

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So here is a list of these definitions, movements and specific standards set in order and designed to be easy to judge. More importantly, these standards will allow for good movement and strength development in competition or training. I do not consider this a mandatory layout but merely my opinion in regards to gymnastics skills and CrossFit.

Cubit—A cubit is defined as the measurement from the longest finger to the elbow on any given athlete. Normally, it's about the width of the shoulder girdle and is allowed for hand placement by any athlete when performing handstand movements, static holds, etc.

The Push-Up—The hands are set just outside shoulder width (measured by the cubit of each athlete or within 30 inches). The chest touches the ground and the athlete's body returns to a locked-out position. There is no deviation in the trunk or breakage of integrity between shoulder and hip; i.e., no angle in the body line.

Hand-Release Push-Up—This push-up is often employed and seen in competition, and at the bottom of the movement the hands must retract completely from the floor before concentric loading is achieved.

The Freestanding Static Handstand—The athlete is performing a "handstand," an inverted balance on the hands. The arms are locked out with hands placed just outside the measured cubit (or within 30 inches), the shoulder girdle is open and extended, and the legs are together and unbroken (no angles in the body line) with toes pointed toward the ceiling. The body should be in a hollow, which is ideal, but simply put, a broken hip line resulting in a pike form is not allowed as the body should be in a nice vertical or "stacked" line. Think of it as feet over knees, knees over hips, hips over shoulders and shoulders over hands. The head form can be in any position for the balance hold: neutral or fully open with eyes directed toward the ground.

Lockout/Open Shoulder—"Lockout" refers to a position where the arms are fully locked out and straight and the shoulder is fully open. No angles are allowed in a fully open shoulder and locked-out arm.



The cubit: a standard distance in the gymnastics world.



In a good handstand, no angles are present in the body line.



The “handstand push-up” is more accurately referred to as a “headstand push-up.”

HeSPU/Headstand Push-Up—It is important to note that what we in CrossFit classify as a “handstand push-up” is normally a press with 50 percent range of motion. It is truly a “headstand push-up,” and we will classify this as a range of motion. For ease of conversation, we will refer to the movement as an “HeSPU.” It begins in a fully extended static handstand hold against a vertical wall. As you lower to the floor, our target area is the top of the head, not the forehead or nose. The head should be at a neutral position

so you can ensure its top will touch. Furthermore, this simple ROM should return to a position with fully locked-out arms and fully open shoulders. Should flexibility of the shoulder be an issue, then one must open to capacity, showing some ear beyond the arm and shoulder plane due to the lack of fully open shoulders. This will be completed with the head moving forward in order to see the full ear of the athlete. The legs should be together and straight (no bent knees), and the toe point is optional. The hands are to be within an athlete’s cubit or a 30-inch measurement. Any hand placement within 30 inches is fine. The same rules apply if Olympic plates are used for a platform and an AbMat laid between them for a softer touch of the top of the head.

Normally, HeSPUs are performed against a solid vertical surface with heels to the wall. If an individual completes the range of motion of the inverted press while coming away from the wall and yet can meet the standards given for hand width, leg extension, fully open shoulders and/or ear visibility, then the rep is considered good. This would essentially be what we classify as a “balanced HeSPU.” Hand placement in relation to the inverted body for foundational support—meaning distance from the body when inverted—elbow placement during performance (turned out or turned in when pressing), and hand distance from the wall are all issues that merely load the athlete’s system in a positive or negative way based on strength of the athlete or habits developed when training. These considerations should not be part of a judging standard, but they will certainly affect the inverted press.

KHeSPU/Kipping HSPU—All form issues discussed above stay the same with the exception that the legs are now allowed to be bent and apart while generating momentum. This is a form of inverted kick to aid an individual in completing the inverted press. Consider it an inverted form of the push-press movement. It is also considered a scaled movement for a normal HeSPU.

The kip is primarily used to add momentum for the HeSPU. All standards should apply as for a normal HeSPU as discussed above in relation to the shoulder, arms and ear-plane positions. I have seen several who perform this movement when allowed but let their hands move sometimes, so it’s important to note that they need to stay within the 30-inch allowance or the athlete’s cubit. As for the fully open shoulder or showing of the ear, it becomes very important to focus on these aspects as they allow for a faster inverted press.

HSPU/Handstand Push-Up—This is a movement on any elevated platform whereby the head actually lowers below the hand placement. It is performed on plates, parallettes or rings, for example, and the head's target is now meant to be lower than the hands as one lowers in the negative portion before returning to lockout. The more one lowers the head below the foundational support of the hands, the heavier and more difficult the movement becomes and the more strength required. All standards for lockout—open shoulder, legs together, ear plane, no body angles—apply as discussed.

In this movement, you can require that the top of the head touch a target, such as the ground or a mat, or comes below the hands' foundational placement. The point of this movement is to increase the load of the press and begin to approach body-weight press movements while inverted. The handstand push-up is about increasing ROM (range of motion) by evaluating the depth of the athlete's head as it lowers in reference to the apparatus. If an athlete is on parallettes, then the standard to be judged is how deep the head is in reference to the horizontal handle gripped by the hands. The athlete must lower below the parallette handle/horizontal plane created by the dowel and then return to the fully locked-out position. If we require more depth, we can place a target on the ground such as an AbMat or plate or soft target.

I prefer to use the apparatus for a point of reference when performing the inverted press, rather than the ground or a target. The point of reference for full extreme range of motion (EROM) will be when an athlete's head comes below the rings or parallettes or plates used for elevated platforms and returns without the head making any contact with the ground. This more than meets the standard and allows for a safer position of the athlete with no pressure on cervical spine.

HSPU on Rings—The rings should be set at 50 centimeters for width, and the straps should not be allowed to move outside of that width. The ring handle should be 10 inches off the ground (measuring the lowest point of the ring to ground). Wooden rings are preferred, and straps are fine. The buckles need to be high in placement to avoid encumbering the arms or body. We will use the rings as a point of reference for the ranges of motion (depth) for ring HSPU: with relation to the top of the head, the standard depths of movement from A to B will be determined by the top or bottom of the ring itself.



In a true "handstand push-up," the head moves lower than the base of support.



In a ring handstand push-up, the bottom of the rings themselves will determine the required depth.

An athlete starts this movement in a locked-out position. He or she must kick up to a static handstand hold in any safe manner, or a straddle press can be used. Once locked out, the athlete can wrap the legs in front or in back of the straps (or perform the movement freestanding with the feet together), and the EROM may begin. The head should remain neutral, and once the top of the head breaks the horizontal plane of the bottom of the ring where the hands are placed, the return to lockout can begin. The athlete is allowed to turn the rings in line with the shoulder as though holding a bar, or the rings can stay facing forward and parallel to one another.

The target for the head is not to the ground but rather below the bottom of the ring. You can also target the top-most portion of the ring when lowering if you wish to lessen the strength component of the movement.

When the athlete's head comes below the rings, the return is allowed without the head making any contact with the ground to show full range of movement. This standard can be used for elevated (on plates) and dynamic planes (the rings). As stated above, using the apparatus as a target is preferable to the ground to prevent excessive pressure on the cervical spine.

Body forms will be varied and angles will occur in this for a workout. It is obvious there are strategic ways in which to game such movements, and this is not the point. We are looking for judging standards only for the EROM on HSPU on the rings. It is far better to be in a hollow-body position with good vertical stability for this advanced form, but many will over-arch and rely on leg pulls and leverage completion. Your job as a judge is to judge the standard from Point A to Point B. The shoulders should be fully open when at the top of the lockout, and again, if flexibility is an issue in the shoulder girdle, then a full ear must be seen from the side of the ear plane relevant to the shoulder opening.

Strict Muscle-Up on Rings—Starting in a hang position with the rings turned out, thumbs facing forward and away from the body, with no momentum or swing, the athlete pulls up through transition of the dip to a locked-out support position above the rings. The movement is finished with a slight turn out at the top to 45 degrees or beyond. The movement must begin with the athlete having no contact with the ground, so the feet must be elevated beyond the ground at least 3 inches.

The ideal strict muscle-up starts with a static hang into a strong pull and transition and finishes in support. Some body angles may occur with a broken hip/piked body. If a pike occurs and the athlete uses momentum to complete by swinging the piked form, it is a no count. Once again, no momentum is used, merely false-grip leverage (optional). The ROM of the dip is not important; however, a lockout with a turn-out with thumbs facing forward is required at the end of the movement. The legs should be together with the toes pointed.

Kipping Muscle-Up on Rings—Use the same starting position as for the strict muscle-up: with or without a false grip, with the thumbs facing forward, turned out and away from the body. However, the athlete may employ movement and a dynamic tap that doesn't exceed the height of the rings in either direction. The ROM of the dip is not important; however a lockout with a turn-out with thumbs facing forward is required at the end of the movement. The legs can be apart in this move but cannot come higher than the rings (in front or behind) at any point in the swing.

Pull-Over on a Bar to Support—Starting in a dead hang with any grip, the athlete pulls the body up and pikes over the bar to a support position. Again, the arms are straight at the beginning and in finished support. (This form mimicks a backward roll on the floor.)

Pull-Over on a Bar to Support to Lowered L-Sit Hang—After the pull-over is completed, the athlete must lower under control, backward or forward to a static L-hang where the legs are straight and parallel to the ground at 90 degrees and the arms are straight.



In an L-sit, the legs should be parallel to the floor.



Not mentioned in this article but critical to success:
always stick the dismount.

Kipping to Pull-Over on a Bar to Support—Starting from a straight-body hang, the athlete is allowed to use a tap or dynamic swing to assist achieving the end position in the pull-over. The athlete's body must travel up and over the bar (mimicking a backward roll) and finish in a static locked-out support position on the bar.

Dead-Hang Pull-Up—From a static hang, the athlete pulls his chin above the bar, breaking the horizontal plane of the bar.

Chest-to-Bar Pull-Up—From a static hang, the athlete pulls his or chest to the bar. The bar should contact the chest just below the clavicle.

Kipping Pull-Up—From an arms-straight dead hang on the bar (any grip), the athlete uses momentum to bring the chin above the bar, breaking the horizontal plane of the bar.

Strict Muscle-Up on Bar—From a static hang with no contact made on the ground by the athlete (any grip), the athlete with no swing or momentum performs a pull up and transfer to a fully locked out support position above the plane of the bar (not a pull over). Legs together, toes pointed.

Kipping Muscle-Up on Bar—From a static hang (any grip), the athlete will use a swing or momentum and possibly a tap to perform a pull-up and transfer to a locked-out support position above the plane of the bar. This is not a pull-over. The legs can be apart, and angles will be created in this momentum movement.

L-Sit on the Floor—From a seated position with the hands just outside the hips, the athlete pushes into a support position with the legs straight and parallel to the ground. The arms are locked out, and the hands may be in any position.

L-Sit on Parallettes—From a support position on the parallettes, the athlete lifts the legs straight up and holds them parallel with the ground with arms locked out.

L-Sit on Rings—From a support position on the rings, the athlete lifts the legs straight up and holds them parallel with the ground. The arms are straight and locked out, with thumbs facing forward.

Ring Dips—From a fully locked-out support position with thumbs facing forward, the athlete descends, breaking at the elbow, past parallel or 90 degrees of the elbow, then presses out to a support in a locked-out position with the thumbs facing forward. He will finish with a 45-degree turnout.

Support to Iron Cross—From a locked-out support position, the athlete lowers with straight arms to the cross position. A false grip may be employed, but the shoulder is on the same plane as the bottom of the rings. The athlete holds for two seconds, then returns to fully locked-out support.

Backward Roll on Rings—From a hang position with thumbs facing forward, the athlete pulls up, then tucks and rolls backward into a controlled support position at the top of the rings. The arms are straight, with the thumbs in a 45-degree turnout. This is similar to the movement of a pull-over on a bar.

Forward Roll on Rings—The athlete is in a support position on the rings and tucks and rolls forward to a lower hang position with thumbs finishing forward in a turnout position.

This is merely an introduction to standards for movements currently used, and I will put forth standards for more movements as we develop such body forms or moves in CrossFit competition and training.



About the Authors



Courtesy of Dusty Hyland

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 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 travelled the world starring in a Cirque du 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 Jeff Tucker

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.