

the  
**CrossFit**  
JOURNAL ARTICLES

## The Push-Up

Greg Glassman



The push-up, long a favorite among junior high school P.E. teachers and Marine Corps drill instructors, is for many, more closely associated with punishment than anything else. Though common to group exercise programs, its use in serious strength and conditioning regimens is infrequent. These days, the push-up, like the jumping jack, tends to be relegated to outdoor programs where the number of exercisers and lack of equipment make it a staple due to necessity.

In an earlier time the push-up was largely regarded as a measure of a man's strength and fitness. In more modern times much of this reputation has been passed on to the bench press, but the push-up's passing misses the great opportunity to master a gateway movement to one of the most developmental progressions in all of fitness.

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## The Push-Up (continued...)

The push-up is more a family of movements than a single exercise. In fact, it is a progression that starts from the horizontal, which is the classic “P.E. push-up” and then, through gradually, incrementally, elevating the feet from the floor to a point where the athlete is eventually in a handstand, becomes the handstand push-up.

The handstand push-up, at the far end of the progression, is a challenging exercise that, when freed from the wall, becomes an extraordinary feat of strength and balance that has no peer in weightlifting movements. At the moment of performing twenty handstand push-ups without benefit of the wall, the athlete has achieved a level of strength and balance that not one in a hundred thousand gym goers will ever realize. The integration of strength and balance gives the handstand push-up, even though limited to bodyweight, an athletic edge that brings this movement to at least peer status with even the heaviest of presses – whether bench, overhead, or jerk. Twenty handstand push-ups in the middle of the room or on parallel bars, again without the wall, confers, automatically, a single-rep military press of perhaps 150% bodyweight, whereas a 150% bodyweight single-rep military press suggests little or nothing about an athlete’s balance.

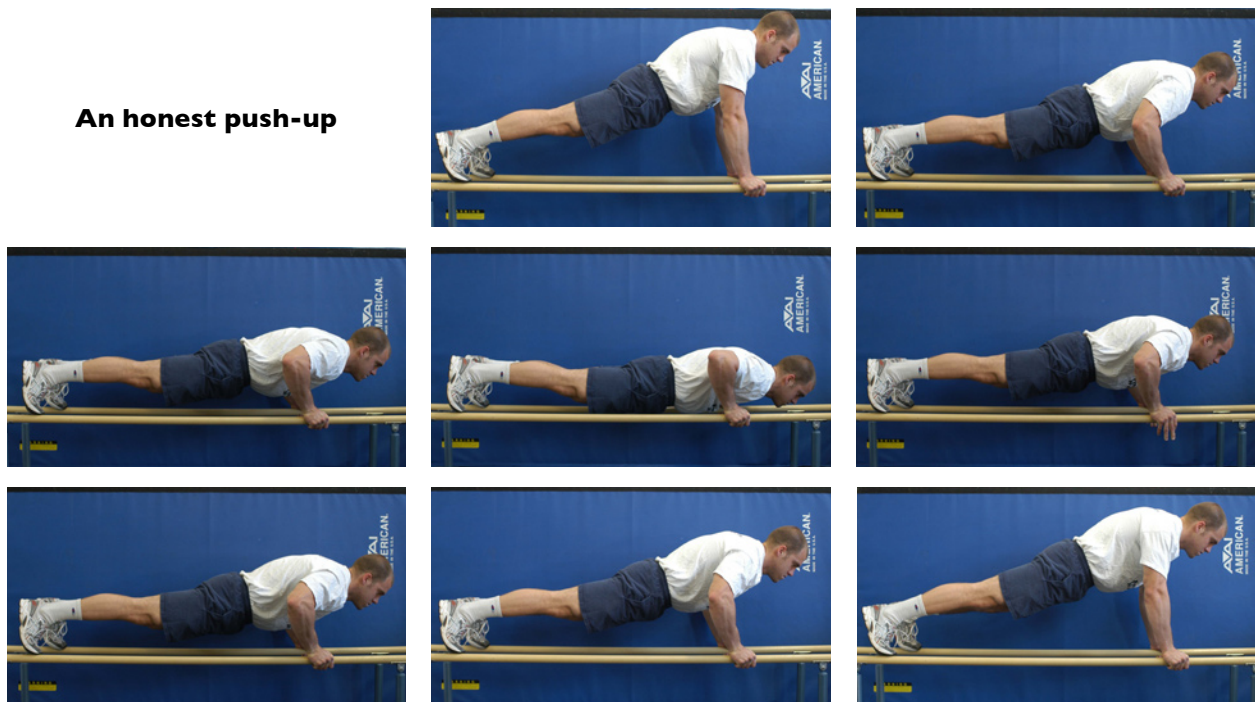
The possibilities and potentials don’t end at twenty,

thirty, or even fifty handstand push-ups. Consider for just a moment the hand, finger, and grip strength developed through performing these handstand push-ups on fingertips – at first all five fingers, then four, and eventually three. Then there are the presses to the handstand that will come smoothly, easily, and confidently as a bonus to the handstand push-up, but we’re getting years ahead of ourselves here.

Mastery of the basic, entry-level “P.E. push-up” is a prerequisite to the handstand push-up. Very few people have achieved mastery of the push-up though many of you think you have. The test is simple: can you do 100 perfect push-ups? The standard for perfection, though simple, disqualifies nearly everyone. A perfect push-up is slow and deep with a body absolutely perfectly straight and taut. We’ve listed the most common push-up faults below. Not one in fifty guys with a 300-pound bench press can do 50 honest push-ups!

So, “what is an honest push-up?” An honest push-up moves slowly from full extension to a point of maximum depth without “reaching” for the ground or perturbing the body’s taut, rigid, straight-line posture, and then returns rigidly to full extension. Done correctly, the push-up is a super demanding whole-body movement. Engage as many stabilizers as possible.

### An honest push-up



## The Push-Up (continued...)

“Reaching for the ground” is trying to find the bottom of the stroke early. The two most common “reaching” cheats are done by craning the neck to find the ground with the nose early or dropping the belly to find bottom early. The ideal is to retard, not advance, the body’s parts from finding bottom – nose, chest, belly, thighs, and pelvis are each in a race to see which can reach bottom last, not first.

“Perturbing the body’s taut, rigid, straight-line posture” is evident when the butt sticks up or the belly sags toward the floor. By our standards a drop of the middle (belly sagging) or lifting of the butt in the air terminates the set. So does stopping and resting at any point. The standard is tough – super-taut straight body, full range of motion (without “reaching”), and resting only when finished.

We do our push-ups on the floor, parallettes, and parallel bars, but the parallel bars or parallettes are better than the floor because they allow for another six inches of travel.

If performing push-ups on the floor we start our athletes from flat on the floor with the nose, chest, pelvis, and thighs – as much of the body as possible – making contact and then begin. The posture on the floor sets the posture for the entire set.

Progressing from the basic push-up to the handstand push-up is a simple matter of elevating the feet in small increments over time. A chair, plyo box, or securely racked bar all make good platforms for elevating the feet.

At first your handstand push-ups will require kicking your heels and posterior against the wall for balance. If you are performing this on the floor, you may want to place a small, flat pillow on the ground, under your head, and lower yourself slowly until the top of your head touches, and then press back up. When you can do half a dozen or so confidently, remove the pillow and the contact point becomes the nose, not the top of the head.

The handstand push-up is very similar in feel and difficulty on the parallettes and on the floor, but on the parallel bars the possible range of depth is several inches lower and consequently much harder.

In future issues we are going to detail the most common presses to a handstand. You’ll want to get the upper hand on these presses by improving your push-ups first.



Greg is half way to the handstand push-up

## 10 Push-up Milestones and Challenges

Here is a progression that should keep anyone busy for a couple of years.

1. Fifty honest basic push-ups
2. Ten handstand push-ups
3. 100 honest basic push-ups
4. Fifteen handstand push-ups
5. Tabata interval basic push-ups with 20 reps in each of 8 intervals
6. One handstand push-up without use of wall
7. Ten handstand push-ups without use of wall
8. Fifteen handstand push-ups without use of wall
9. Twenty handstand push-ups without use of wall
10. One handstand push-up without use of wall and on fingertips

## Push-up Links

1. Push-up records: <http://www.recordholders.org/en/list/pushups.html>.
2. Charles Linster was an early world record holder with an inspirational story of courage and perseverance: <http://www.recordholders.org/en/list/ulysses.html> and [http://www.disability.uiuc.edu/ARCH/archive/ss/9697/ulysses\\_yield.html](http://www.disability.uiuc.edu/ARCH/archive/ss/9697/ulysses_yield.html).
3. Here is the ultimate guide to parallettes and an excellent source for some of the coolest parallettes ever. Learn these skills and your fitness will skyrocket! [http://www.american-gymnast.com/technically\\_correct\\_paralletteguide/titlepage.html](http://www.american-gymnast.com/technically_correct_paralletteguide/titlepage.html).
4. Or, you can make your own parallettes. This is one of our favorite sites on the Internet: <http://www.drillsandskills.com/skills/cond>. At the end of this list of some beautiful skills and drills are instructions for building a perfectly suitable set of parallettes for practically nothing:

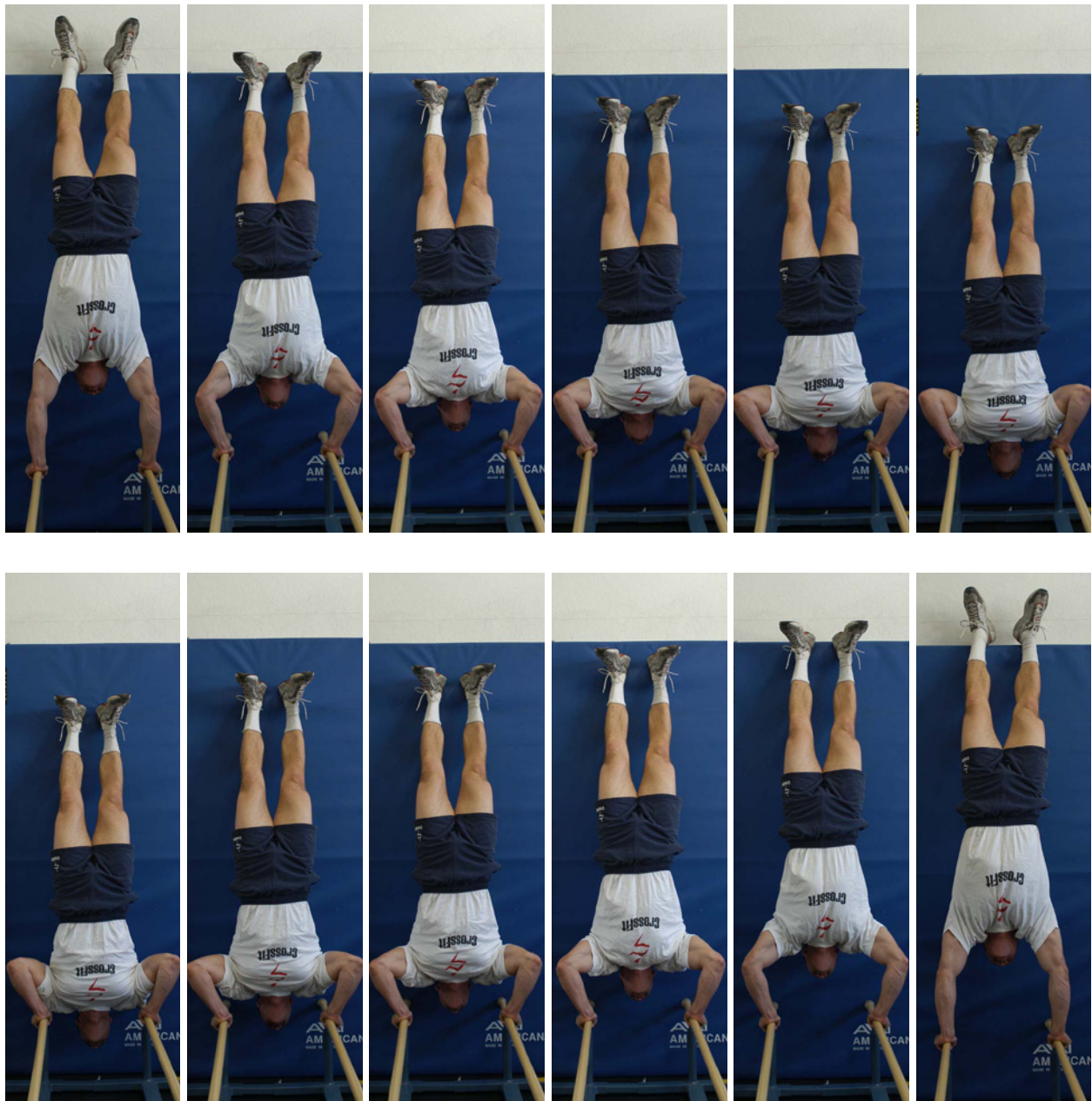
## A Cheater's Guide to Lousy Push-ups

Avoid each of these and you are nearly guaranteed an honest push-up.

1. Sagging: Dropping the belly in an attempt to hit, or reach bottom early
2. Piking: Sticking the butt up in the air. This is usually accompanying a rest (see resting, below).
3. Resting: Coming to a stop. This is usually tried at the top, often while piking, but may manifest as a collapse at the bottom.
4. Bouncing: This cheat is, exactly as the name implies, bouncing off the floor to rise to top again without effort. This is a big hit with fat guys.
5. Yogaing: With this cheat, the head and neck lead up followed by the chest then belly. It is a dynamic variant of sagging, but often performed as though it were a plus or artistic.
6. Reaching: Reaching's most common form is with the head and neck. Some cheaters can extend their head and neck an extra six inches in an attempt to find bottom early and avoid the pain of a real push-up. Look for the nose a foot below the chest.
7. Speeding: The count should be a slow "one-two" up and "one-two" down unless doing timed efforts like the Tabata Interval. For reps, they have to be slow and controlled.
8. Shorting: This is the worst and most common cheat where the cheater typically doesn't go all the way down. Not rising to the top is less common but still cheating.



## The Push-Up (continued...)



Greg Glassman is the founder (with Lauren Glassman) of CrossFit, Inc. and CrossFit Santa Cruz and is the publisher of the *CrossFit Journal*.