YURI MARMERSTEIN

BALANCING THE EQUATION

A SCIENTIFIC PROCESS BEHIND LEARNING HOW TO PERFORM A FREESTANDING HANDSTAND

Balancing the Equation

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Introduction

People by nature love to be inverted. Don't believe me? Watch kids on a playground: They love to be upside down every chance they get. Kids are naturally drawn to inverting themselves. I have found that performing handstands near children gets them to instantly attempt the same regardless of their strength, coordination or skill level.

However, just like many other traits and skills, the love for inversion gets lost by the time they grow up.

We can rekindle this love for inversion by practicing the easiest possible way to invert: the handstand.

The handstand requires no equipment, just some flat ground, a wall (if needed) and your own body. This is quite a small investment for the potential positive outcomes.

Hand balancing is a very enjoyable practice with numerous benefits including, but not limited to, increased strength of the shoulders, wrists and fingers, in addition to improved body awareness and coordination. Beyond that, it is a unique display of mastery of one's own body.

Unfortunately, hand balancing can be very frustrating to learn on your own. It is an incredibly complex skill, and there is a reason why few people do it well.

This was one of the things that initially drew me to the art; there is no way to bypass the work you have to put in.

The good thing is that learning to stand on your hands follows the same principles and progressions we all used to learn to stand on our feet. However, as adults we no longer have the luxury of time like we did when we were infants (think about how many hours a day you spent learning to stand on your feet). This is why I am going to streamline the process for you and take out some of the guess work. I will set out a clear method to help you understand how these skills are learned in your own body. My intention is to give enough concepts so that you can learn how to teach yourself.

This book will talk about the fundamentals of handstand training, and the best way to work up to holding a solid freestanding handstand. I also write under the assumption that you do not have regular access to a training partner. While having a partner can help greatly with some of the progressions, the program is designed for solo training.

My method differs from that of other disciplines that involve hand balancing such as gymnastics, breakdancing or capoeira. The handstand is a major facet of these styles of movement, but it is only a fraction of the whole. Despite including handstands as a regular part of their training, the percentage of athletes who have the skill mastered is still fairly small. Even though we will be borrowing some concepts from gymnastics, capoeira and breakdance, this system will go into much greater detail. The handstand is a means to an end in the above arts, but for us it is both the beginning and end goal.

About Me

I am not a gymnast or circus artist trained from childhood. In fact, I had little acrobatic training as a child.

Many people make the excuse that they are unable to do something because they were not trained from a young age. Does being trained as a child make a difference? Absolutely. There are certain levels that cannot be achieved without it; however, it is not a valid excuse. The learning process simply needs to be altered for adults.

In hand balancing, I am mainly self-taught. I have not had a proper teacher and learned with very little material and reference. I started training because I loved it, and I continue for that same reason. For me, there is no end goal other than the continued refinement of my own practice.

I started hand balancing at a fairly advanced age (when it comes to acrobatics) with the standard approach of trying to kick up, flailing about, and falling on my back. I managed to make progress through pure obsession but it took a long time. It's not a method I recommend to others.

Being self-taught provides me with a unique advantage. I achieved what I did by taking the longest possible way to get there. I have literally tried everything and made every possible mistake. I've discovered things through trial and error and know what works and what doesn't. Afterwards, I created my method of teaching the handstand utilizing the mistakes I made.

I have also been very lucky to be able to train with several world-class athletes and artists who have given me fantastic advice and inspiration.

This book is a collection of ideas I have been exposed to over the years as well as many of my own original ideas. Of course, everything has been done before. Just because hand balancing is making a comeback to popularity does not mean that it hasn't been around longer than any of us have. It's not the exercises here that are unique but rather the perspective behind them.

I break the path to freestanding balance down into five stages, each with a certain amount of acclimation required prior to moving on. In order, the five stages are: alignment, support, inversion, support plus inversion, and finally balance.

Once freestanding balance is achieved, it opens up unlimited possibilities to continue the art.

Chapter 1:

Alignment

Introduction to Alignment

The road to balance begins with alignment.

A handstand is most efficient and generally better-looking when the joints of the body are stacked on top of another. In addition, a well-aligned handstand is better able to handle an increased load and leads into more advanced elements with less difficulty.

Alignment is about learning what cues are required in your own body to create a certain shape, in this case a straight line or as close as we can get. This is a combination of positioning the shoulders, back and hips to get as close as possible to a straight line.

Note that having “proper” alignment is by no means a prerequisite for having a solid handstand. This is where we will bring up the old-time strongmen and hand balancers. These guys were able to perform incredibly difficult feats, all with “broken” handstand alignment. It is quite possible to achieve a high level of hand balancing proficiency without having a straight line, but there are certain techniques that can make some of the advanced elements easier to learn.

In other words, a broken handstand is not wrong, it just isn’t always ideal.

The intent with the following exercises is to teach your body what the positions feel like and apply them later.

Back to Wall Alignment

The first exercise we are going to perform will require a wall.

(leg image) Stand facing away from the wall with your legs straight and feet together. It is acceptable to have your heels a few inches or even a foot or more away from the wall, as this is not the focus of the exercise. If you have big glutes, moving your feet further from the wall may even be necessary to complete the exercise.

(right image) While facing away from the wall, attempt to remove all space between your back and the wall. This is accomplished by tilting the pelvis forward and contracting the ribs into your body which causes the back to flatten. Keep the back of the head touching the wall for this exercise to further help simulate the final handstand position.

Do not make the attempt to move on until you can get your back completely flat. One way to check your position is to attempt to slide your hand under your lower back; you should not be able to.

The next step is to now try to extend your arms towards the wall and in line with your body. The end goal will be to try to touch the back of the wrist to the wall while maintaining a flat back with arms straight and shoulder width.

The final position will have the arms and the back create a 180-degree angle between them.

This drill is deceptively difficult to those lacking the proper shoulder flexibility or strength of the opposing muscle groups. Even with the necessary attributes, this is still a novel position for most people.

The important point here is to actively reach back with straight arms while keeping the back flat. The difficulty comes from the ribs/back and shoulders moving in opposite directions. In the beginning it will produce great tension in the back and shoulders, but it will get easier over time. To cheat, most people will arch their back, bend their elbows or bring their arms out too wide. Do yourself a favor and start over if you catch yourself cheating. It is imperative to be strict with the form of this exercise.

As with all the alignment drills, this can be performed while holding a dowel in the hands. It helps to reinforce that the arms be straight and shoulder width apart, but it is not a requirement for proper execution.

Main points:

- **Back flat to the wall**
- **Arms shoulder width**
- **Elbows straight**
- **Back of the wrist touching the wall (or as close as possible)**
- **Feet together and slightly away from the wall**
- **Knees straight**

Chest to Wall Alignment

The following drill is going to add focus on hip extension while maintaining hips and ribs in. A major point of the exercise will be isolating the movement of the shoulders at end range.

Stand facing the wall with the knees straight, feet together and parallel. The ends of the toes should be touching the wall. Try to pull your chest and ribs in while extending your hips to the wall. The idea here again is to be completely flat to the wall or as close as your body allows for. The goal is for the hips, sternum and feet to be in contact with the wall.

Once the position of the body is understood, we can start to add in movement of the shoulders.

Start with the arms overhead and try to pull the arms away from the wall. Elbows must be straight and facing each other with the arms shoulder width.

Note that in the previous drill facing away from the wall, the wall stops the shoulders at 180 degrees to the back. In this drill, it is possible for someone flexible enough to go past this limit. While it is great to have the control to be able to go beyond 180 degrees, it is not something we want for the base handstand position. It can alter the alignment and weight distribution as well as decrease shoulder stability in the handstand.

Those of you who can go further than the 180 degrees of shoulder flexion in this drill would do well to remember what the 180 mark feels like. This will help tremendously with the handstand position later on. It may take a mirror, video or a partner to understand where this mark is.

With these alignment drills the goal is to remember what the position feels like, and what you have to engage to get into position and stay there. Once you get inverted, finding the position will not be as simple.

Main points:

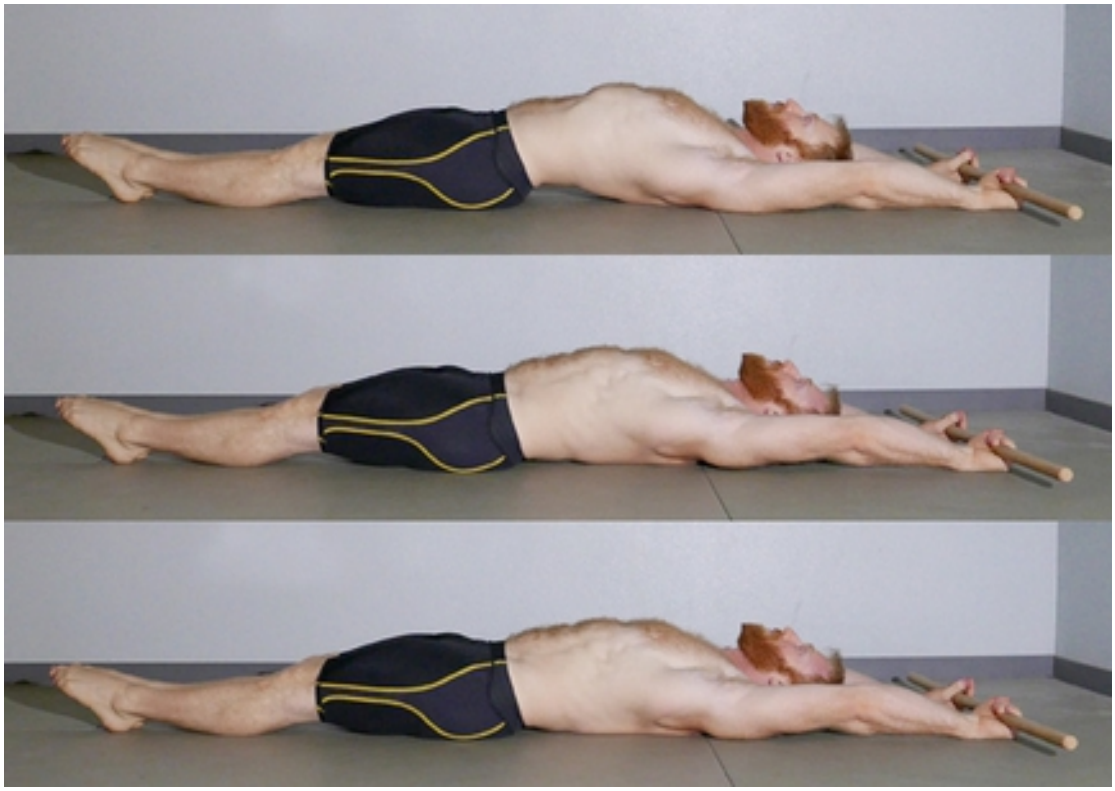
- **Feet together**
- **Hips extended**
- **Knees straight**
- **Hips, feet and sternum contacting the wall**
- **Press the arms away from the wall, up to a 180-degree angle with the back**
- **Head looking up between the hands**

Back to Floor Alignment

This next exercise will be a modification of the standard gymnastics hollow body position. While the basic hollow position is important, I do not believe its common form is the best to transfer into handstand practice.

The gymnastic hollow body position.

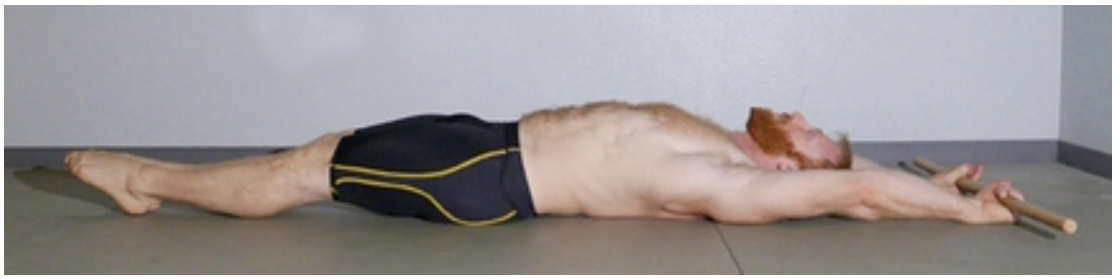
There are several progressions of this exercise, all with varying levels of body tension involved. Ultimately the goal is to hold the shape with minimal body tension to be able to conserve energy.



First off, lay with your back on the floor in a relaxed position with arms overhead. Make a note if your body naturally lays flat or if parts come off the floor.

The next step is to see what adjustments need to be made in order to lay flat on the floor. In most people, the lower back coming up is the main issue. To fix this, tilt the pelvis to help flatten the back.

Things to notice include lower back coming off the ground, knees bending, feet turning out and arms coming off the floor. These details can serve to diagnose to what physical restrictions are holding you back from a straighter line.



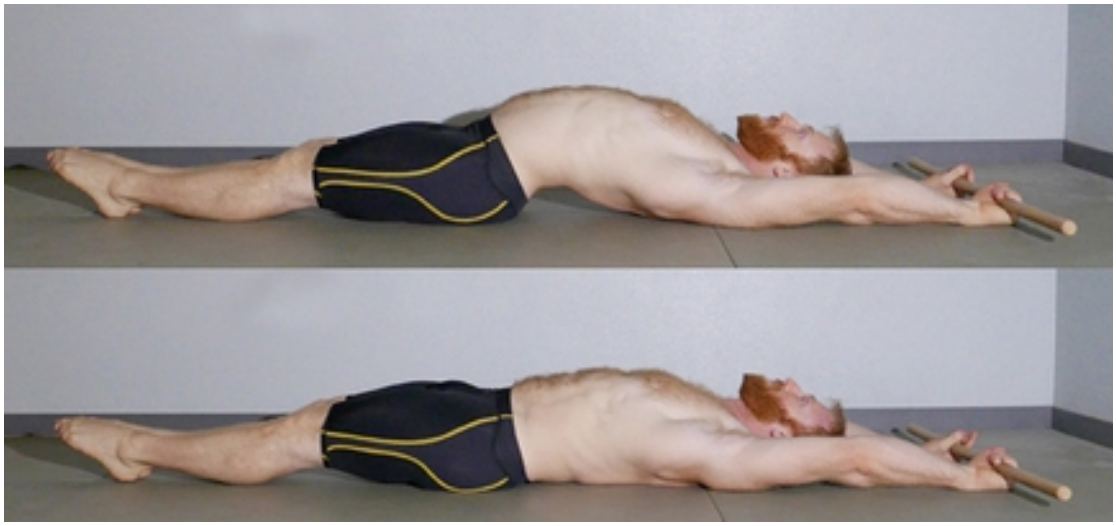
Next, we gradually add more elements to the exercise to improve the form. Bring the legs and feet together, straighten the knees, and point the toes. Arms should still be overhead and completely relaxed. We should now have what looks like a proper horizontal handstand shape.

Taking it one level further, we can even try to lift the legs with posterior tilt of the pelvis. The goal is to continue until the legs barely lift off the floor. The line of the hips should still be completely flat. This is a good drill for selective tension of the midsection required to hold the legs up without collapse in the hips or lower back.

Main points:

- **Back flat**
- **Hips extended**
- **Knees straight**
- **Toes pointed**
- **Feet together**
- **Legs hovering off the floor**
- **Arms straight and shoulder width**
- **Arms on the floor**
- **Head neutral**

There are countless variations of this drill that can be performed, but I want to add in one more for its use in correcting handstand adjustment.



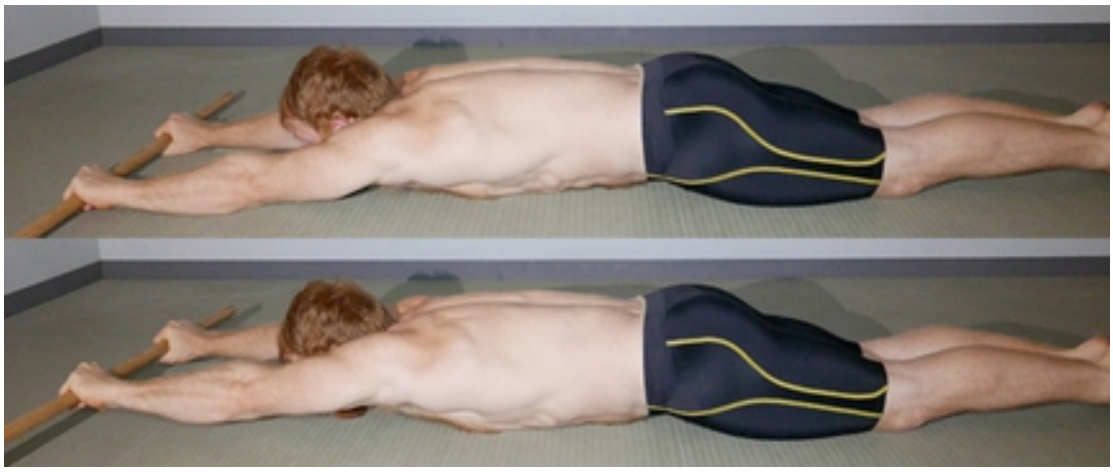
While maintaining the arms and legs flat on the floor, perform rib isolations. This is accomplished by lifting the back off the floor and pressing it back down.

The action of pressing the back down into the floor is a very common cue I give people to correct their handstand alignment. When in the final “ribs in” position, do your best to avoid any flair of the ribs, even if the back is already flat.

Note that tight hips and/or shoulders may make it difficult to keep the legs and arms flat while pressing the ribs in. In this case, it may be useful to have an external force, such as a partner, assisting in holding the arms or legs down during the movement.

Chest to Floor Alignment

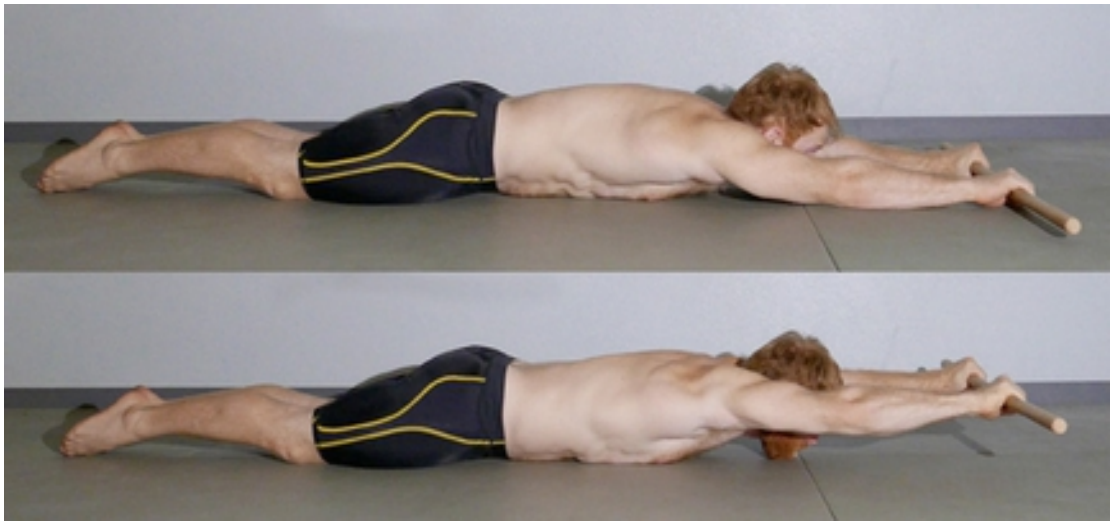
The next exercise has several parts to it. The final version will simultaneously work hip extension, back flattening/posterior pelvic tilt, and shoulder strength and flexibility.



Start by lying on your stomach in a comfortable position with legs straight and together. Tilt the hips and press the top of your chest down into the floor to flatten out your back. The idea is to feel the feet, hips and chest on the floor at the same time. The head should be looking up slightly to allow space to be able to pull the chest down further.

Then, the final phase of this alignment drill is to lift the arms up overhead while still holding the position.

The goal is to completely open the shoulders against gravity while keeping the elbows straight and arms shoulder width. The difficult part here is to isolate opening of the shoulder without compensating by arching the back, lifting the chest, or retracting the shoulder blades.



In the final position, the back should be flat and the arms lifted to where they create a straight line with the body. Lifts of the arms can be performed as pulses or an isometric hold.

Main points:

- **Feet, hips and sternum contacting the floor**

- **Arms straight and shoulder width**
- **Lift arms up until they are in line with the back**

Simulating Alignment Without a Guide

Even though it is more complex than this in reality, there are three basic cues that need to be remember for handstand alignment:

- Shoulders Open
- Ribs In
- Hips Open

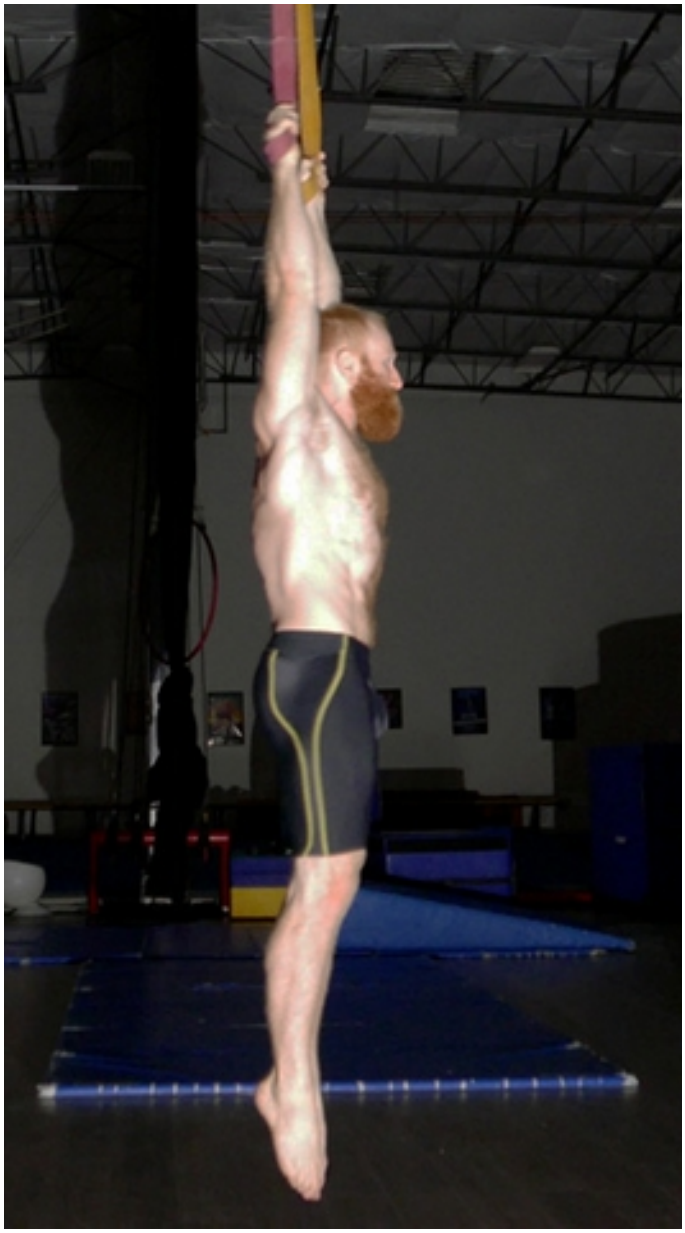
“Shoulders open” refers to shoulder flexion, but only up to a point where a 180-degree angle is created between the arms and back.

“Ribs in” refers to a combination of posterior pelvic tilt and a contracting of the chest and rib cage.

“Hips open” refers to isolation of hip extension while maintaining pelvic tilt.

When performing the previous alignment drills, the floor and wall acted as a guide for how to align yourself. The next challenge is to take away that guide and see how well the position is understood.

The first challenge is to try the position while standing. You will notice it is very counterintuitive compared to most people's regular standing position. It is crucial to understand this difference.



The next part of this challenge will be to replicate this alignment while hanging from a bar. Again, take note that your typical relaxed hanging position may not be one that best simulates your ideal handstand position.

Remember the adjustments you have to make to create the desired shape.

Alignment Conclusion

Alignment in a handstand is something that can be continuously worked over the years of your practice.

The alignment drills listed can be performed as a warm-up, cool-down or in between sets as a reminder.

Aligning the handstand is not the be all and end all, but it definitely has its place depending on the practitioner's goals. Also remember that being able to demonstrate "proper alignment" on the floor or wall is no guarantee that someone will be able to demonstrate the same alignment in a handstand.

Chapter 2:

Arm Support

Introduction to Arm Support

Before we actually go to a handstand we first have to cover the basics of arm support. The goal is to find a position where the body can hold itself up using its own structure rather than muscular effort.

The basic push-up position is the easiest way to begin to learn proper arm support concepts. We want to create a structure that does not collapse under increased load; a concept we can later take to our handstand.

Here is what I look for in a pushup position:

- **Arms shoulder width**
- **Shoulders directly above the hands**
- **Elbows locked**
- **Scapula protracted**
- **Posterior pelvic tilt**
- **Open hips**
- **Straight knees**
- **Toes pointed under**

I know it's a long checklist, and I could easily make it more complex if I wanted to. The reason for being so picky with the pushup position is that it is very simple to perform, but easy to perform "wrong". By that, I mean it reinforces the habits that will make the advanced bodyweight skills more difficult to learn.

One more concept that is important to understand in this position is the location of the shoulders compared to the base of the hands. Play with positioning of the shoulders and understand what it feels like when the shoulders are above, in front, or behind the hands.

Shoulders directly above the hands is ideal.

Shoulders in front of the hands increases the strain on the wrists and shoulders.

Shoulders behind the hands reduces the pressure on the wrists, but shifts weight back into the legs (a luxury you don't have in a freestanding handstand).

Frog Stand, aka The Crow

This position is very useful for a beginner to feel a couple of important concepts. The first is what it feels like to hold the full weight over the hands. Also, the crow introduces the concept of balance in a position with a very low center of gravity compared to a handstand. If performed correctly, the frog stand also teaches how to create a structure that uses minimal physical effort to hold itself.

In addition, the entry into the position teaches how to gradually shift weight into the hands. This concept of precision is very important later on.

To perform the frog stand, start on all fours with elbows slightly bent and shoulders in front of the hands. Place the knees on the top of the elbows so that they may rest there. If the knees are not supported by the elbows, the frog stand becomes increasingly difficult to hold.

Once the desired position on all fours is achieved, start to lean weight forward towards your hands until your feet bear less and less weight on the floor. Once you have the sense that your feet are weightless but still touching the floor, bend your knees further to lift the feet into the final position.

Make sure the transfer of weight from feet to hands is performed slowly, with the precision of grams and millimeters. It is important to learn how to make corrections gradually and in small increments to later master the freestanding handstand.

Try to avoid jumping into the position, if you lean into the arms correctly it should feel like the feet want to lift by themselves off the floor.

Main points:

- **Elbows slightly bent, facing inward**
- **Knees on top of the elbows**
- **Slightly rounded shoulders and upper back**
- **Regular breathing**

Chapter 3:

Inversion

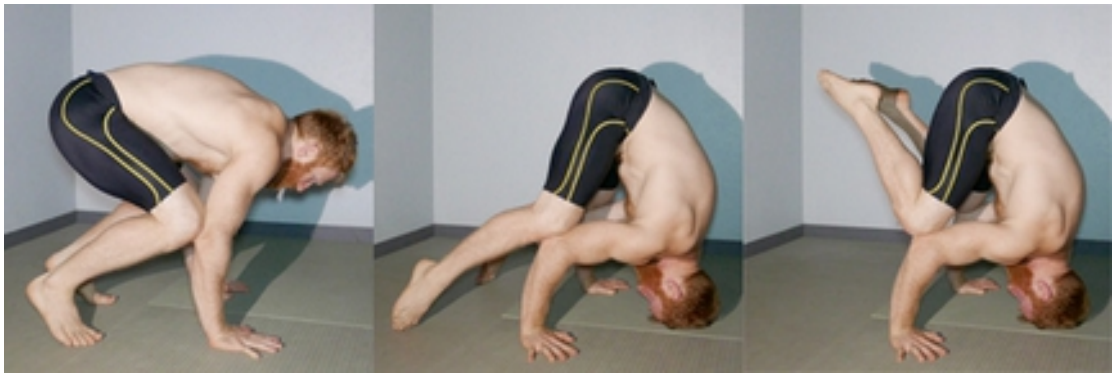
Introduction to Inversion

The next stage of handstand development is learning how to get comfortable upside down. Handstand development is as much psychological as it is physical, and the disorientation of being inverted is one of the reasons why.

The goal is to be comfortable enough upside down to be able to think, breathe, talk, take corrections, know where you are, and fall safely. Eventually you should build up to having a similar level of control inverted as you do upright.

Headstand

I do not feel the headstand has much transfer to handstand skill due to the wider base of support. Nevertheless, it is a good way to practice inversion and try to apply some of the alignment cues to the midsection and lower body.



To perform a headstand, begin as you would a frog stand, squatting with the knees on the elbows. Now place your head on the floor in front of your hands so that a triangle is created between the hands and head. The hands should be in your field of vision.

From there, lift the hips above the head with the knees still on the elbows.

The extra point of contact with knees and elbows can greatly help with confidence and stability for those who are new to this pose, commonly known as the “tripod”.

Because there is weight on the head, it is important to engage the neck by pressing it into the floor. As far as what part of the head to contact the floor, some people prefer the top of the head and some the forehead. It is simply a matter of preference.

The weight of the body should be leaning slightly towards the hands.

Once you can hold the tripod, slowly lift the legs up to a straight body. There should be no point at which you are not in complete control of the movement. Do not go up higher if you do not feel confident in your balance.

Make sure to keep the neck extended and remember the "ribs in" and "hips open" cues from before.

Keep in mind that in a headstand, the body will typically not be aligned completely vertical. A slight tilt towards the hands is normal.

Main points:

- **Triangle between head and arms**
- **Arms bent**
- **Neck extended**
- **Weight evenly distributed between head and hands**
- **Ribs in, hips open**

Inverted Hang

This is an exercise that is great for both building awareness in inversion and helping to demonstrate the benefits of alignment.

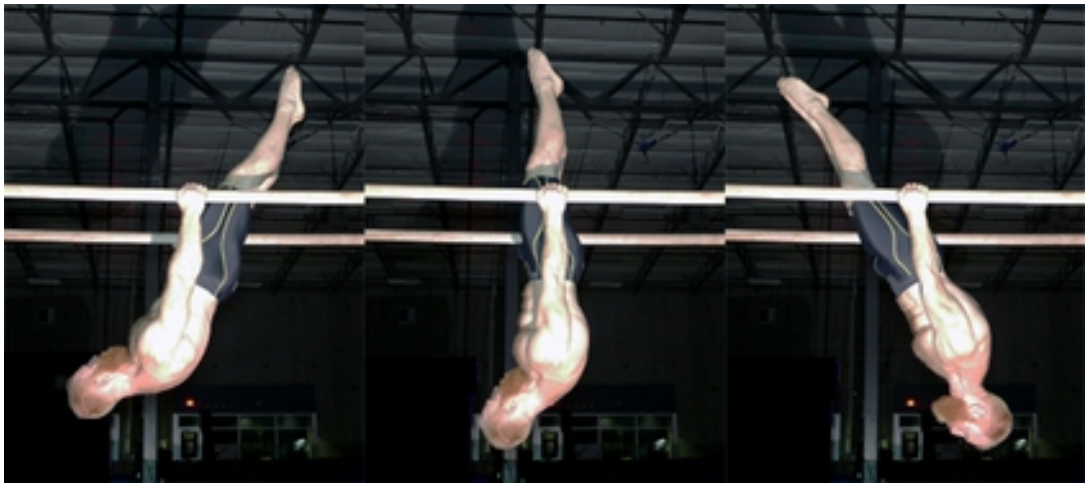
Grab a pair of rings (right image) or parallel bars (left image), and either lift or jump up to where your body is aligned vertically.

Once in the full inverted hang, keep the body straight and look up at the toes to have a reference point for body position. You should feel that when the body is straight up and down, minimal effort is required to hold the position.

Beginners should keep the rings or bars low and get a spotter to help them up if need be. If on the rings, another way to scale down this exercise is to rest your feet on the inside of the straps.

Main points:

- **Arms straight**
- **Rings parallel**
- **Ribs in, hips open**
- **Look up at the toes**



Next, try to keep the body as one piece and add a small tilt forwards and backwards, as if you wanted to go to a front or back lever. Feel the difference between the effort required to hold the inverted hang with a slight lean compared to vertical.

This difference is one of the reasons why we strive for a straight handstand.

Inversion in Support

The next step is to move on to handstands against the wall, which combines inversion with arm support.

It is critical to have mastered the concepts of arm support and inversion prior to attempting a wall handstand, as the combination of the two makes things a bit more complicated.

This will be the final stage before learning how to balance, which adds even more complexity to the skill. This is why it is important to build a solid base of support so that the good basic habits are ingrained in the body.

Chest to Wall Handstand

The chest to wall handstand is easily scaled for different levels of beginner and also encourages better form compared to the back to wall handstand.

The goal is to work your way up to being comfortable in the full position. When I say “comfortable”, I mean able to hold the full position with minimal effort and minimal movement for an extended period of time while still being able to breathe.

Start in a pushup position with feet against the wall and slowly walk up the wall. As the feet go up, gradually walk the hands in.

My suggestion when walking up the wall is to straighten the arm and tense the shoulder prior to placing weight on it to minimize the risk of collapse. Try to keep in mind the alignment cues we discussed earlier. Shifting the weight from arm to arm while walking up the wall adds a new challenge, so make sure the elbows are locked the entire way through. A bent elbow may seem safer, but it actually increases the risk of fatigue and collapse.

In the beginning stages only go up as far as you are comfortable, and gradually increase the height.

If you are only partway up the wall and not comfortable going higher yet, you have two options:

Option one (left) is to maintain the straight body alignment and lean the weight into the wall.

Option two (right) is to break alignment at the hips but focus on stacking the shoulders and torso vertically. This will help to feel a bit more weight in the hands rather than leaning into the wall.

These positions are stepping stones, so take the necessary time to build comfort, but try to keep pushing to get higher up and closer to the wall.

In the final stage of this exercise you will want your hands no more than a couple of inches from the wall. Strive to have the sternum, hips and feet all contacting the wall. This position may be held static for up to a minute or longer.

To exit, you can either walk the hands back down or cartwheel out. Either way, note that it still takes considerable effort to exit. This means that for safety purposes (especially for beginners) chest to wall handstands should not be performed to failure. Save a bit of strength just in case the dismount does not go as planned. If we are treating this as skill work, we shouldn't be going too far into fatigue anyway in order to build good patterns.

Main points:

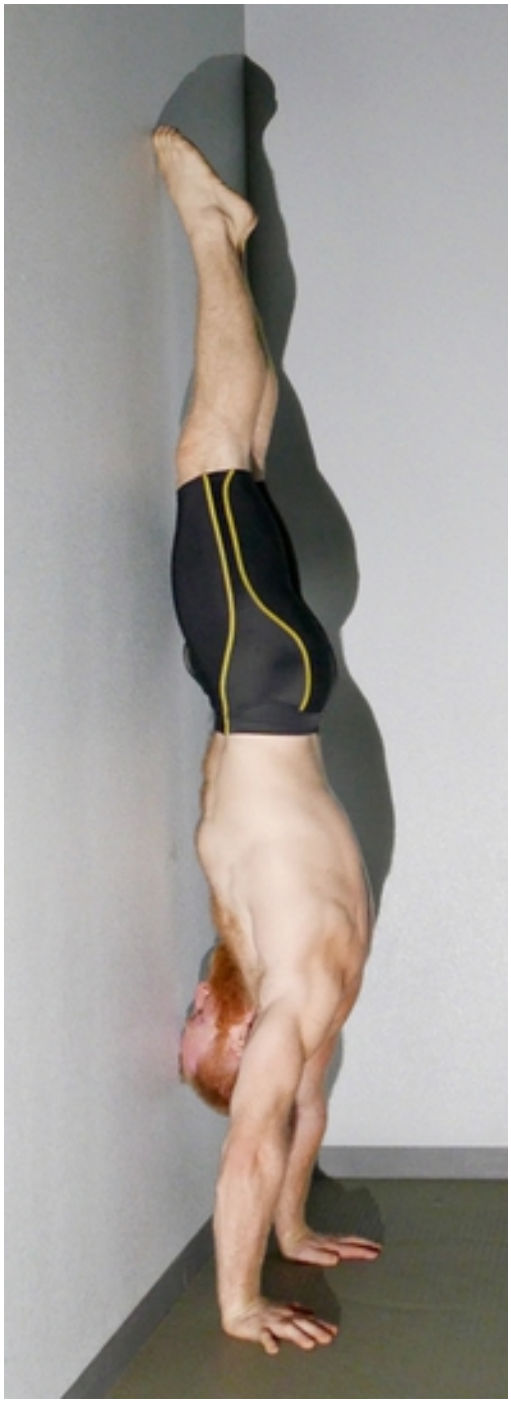
- **Hands near the wall**
- **Sternum, hips, and feet contacting the wall**

- **Arms shoulder width**
- **Elbows locked**
- **Feet pointed**

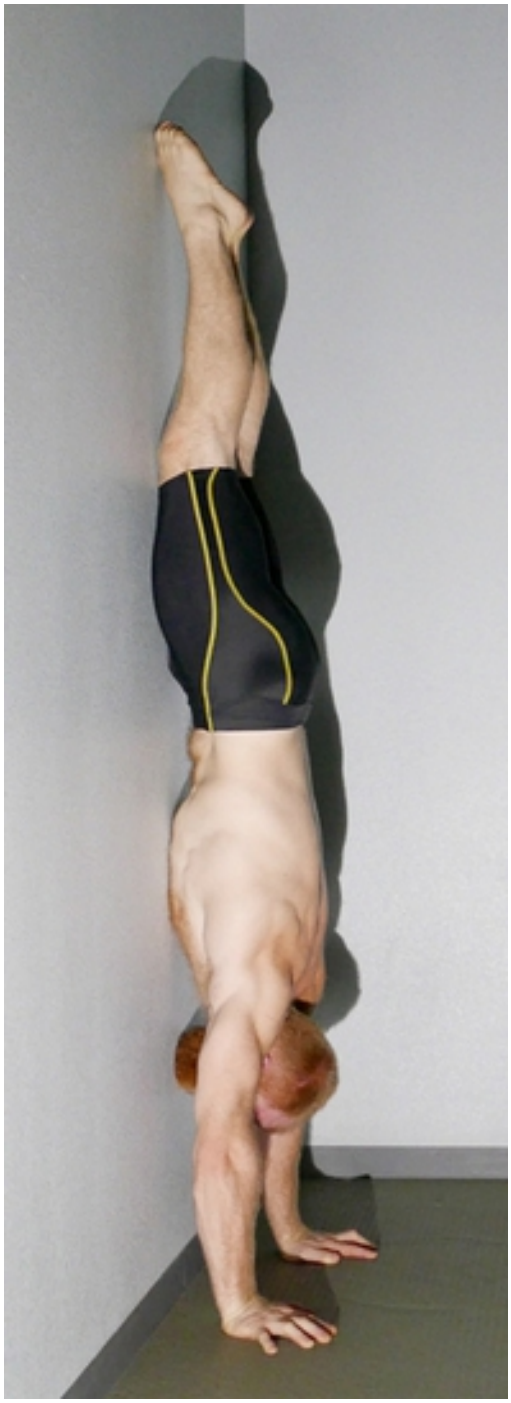
I have one more concept to get the most out of your chest to wall handstands.

The earlier alignment drills that had you facing the floor cued a slight extension of the head to create space. The same applies when transferring this alignment to a wall handstand.

Many people naturally want to pull their head in when performing a chest to wall handstand. However, the head-in position can actually hinder someone from achieving an ideal alignment. When the chest to wall handstand is performed with a close proximity to the wall, pulling the head in will restrict the shoulders from fully opening to the 180 degree mark.



The head-in position.



Instead, try pulling the head out and attempt to contact the upper chest to the wall.

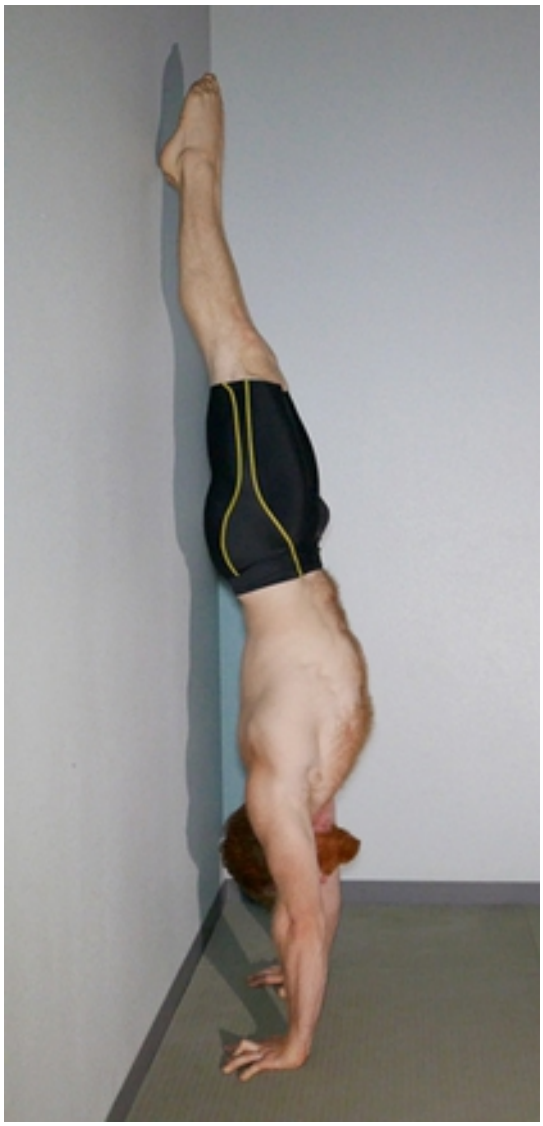
Even if the upper chest never actually touches, the action will still help to take care of both the “shoulders open” and “ribs in” cue in one movement. This will greatly improve alignment in the exercise.

Apart from alignment, looking at the floor will also help to understand a couple more advanced concepts in the handstand. First, looking at the floor gives a visual reference for the position of the body. This will make it easier to perform balance corrections and receive feedback. Second, looking at the floor increases the safety of handstand bail-outs. It is generally much easier to orient yourself to land your feet on the floor when you can see where you are landing.

Back to Wall Handstand

The back to wall handstand should come after the chest to wall variation. The main reason I place this later in the progression is the amount of contact your body has with the wall.

In this exercise only the heels should touch the wall, giving you less guidance for what the ideal form should be. Another reason is that the kick up to the wall can also invoke a fear response in some beginners.



To perform this exercise, face the wall and place your hands with fingers a couple of inches from the wall. As far as finger distance from the wall goes, there is a sweet spot. Too close and it makes it easy to fall back down, whereas too far and the form will be compromised. Experiment with distance and find what works best.

From the start position we are going to kick the top leg while pushing off with the bottom leg. Gradually increase the height of the kick until the first leg gently makes contact with the wall. Once contact with the wall is made, use the same amount of power in the kick and bring the second leg up after the first leg.

This is not a movement that requires excessive force. Try to keep the kick gentle and deliberate so as not to injure your foot on the receiving wall. Upon finding the wall, pull the feet together and point the toes with only the heels touching the wall. Both legs should remain straight once they leave the floor for the entry to this skill.

The elbows should stay completely straight.

Remember the alignment cues: shoulders open, ribs in, hips open. This position will test how well you understand it since you no longer have the wall as a guide.

Main points:

- **Hands close (but not too close) to the wall**
- **Only heels touching the wall**
- **Elbows straight**
- **Shoulders open, ribs in, hips open**

Inversion Conclusion

The idea is that neither the chest nor back to wall handstand is an ideal position. The position that you will be balanced in is actually in-between the two. Working both these exercises will help set you up for a balanced straight handstand with proper form.

It is important here to be very strict with form and technique, especially as a beginner. The idea is to build good patterns right from the start. My recommendation is to quit as soon as form is compromised until a higher level of proficiency is achieved. There is a time and place for endurance work, but it needs to be very specific. Building good form is the first priority, and fatigue can make it very difficult to do that.

The goal here is to get comfortable. This means you can hold the position for an extended period of time without having to actively think about it. Once the technique is ingrained in your subconscious, it means you are ready to add more elements. It will be very difficult to focus on balance when it is a struggle just to stay up.

Also, remember to breathe! This is not a strength move so breathing should be natural. Holding your breath is a good way to ensure your holds don't last very long.

The breathing technique in a handstand needs a few modifications from how we typically draw breath while standing. Breathing through the chest will change your shape and alignment, so in a handstand you should be breathing through your stomach. This has to occur while maintaining the body tension that is necessary to stay in the position. It is very similar to Pavel Tsatsouline's "Breathing Behind the Shield" concept.

To build on this concept, someone who is not in control of their breath has a specific body language that shows signs of struggle. A goal of hand balancing is to make the movements look effortless. Control of the breathing is one of the main concepts to understand for this to happen.

Chapter 4:

Theory of Balance

Introduction to Balance

All of the above work is necessary preparation for learning to balance on your hands. There is a very big difference between holding a handstand and balancing one.

As bipedal creatures, we are in a constant state of falling over when we stand. I define balance as continuously catching yourself before you fall.

Standing on the hands is actually very similar to standing on the feet. In theory you already have all the tools you need to be able to stand on your hands, you only need to learn how to apply them. The main difference is that you've been practicing standing on your feet every day of your life. On top of that, people practice hours a day for several years to learn to stand on their feet. You can expedite that process in hand balancing if you understand the right concepts.

Balancing in and of itself is just a series of corrective movements based on feedback. You don't realize it, but when standing on your feet you are constantly making small adjustments. This is very easy to notice if you watch a toddler trying to walk or stand. Their sense of balance is still under development, so their balance corrections are very noticeable. If you watch closely, you can see how toddlers constantly fall and catch themselves. Adults actually do the same thing, but our sense of balance is refined enough that it has become autonomous. If you want to see adults making more noticeable balance corrections, go to the bar on a Friday night. Alcohol slows reaction time, so you can see similar balance corrections in a drunk as you would in a toddler.

Our own balance corrections are easy to feel by increasing the difficulty. Standing on one leg is a good way to do this. Taking away the visual reference by closing your eyes makes the balance even more difficult to hold. Or you can decrease the base of support and try to balance on the ball of the foot. You will notice that it now takes considerable effort and concentration to continue standing.

You will also notice that the more difficult you make the balance, the more the body tends to wobble and move around. A refined balance is still balance. Movement while balancing is normal as a progression, but the eventual goal is stillness. Of course, stillness is actually an illusion. A still balance is simply one where smaller corrections are performed more often and with less effort.

The Body as a Stick

The simplest way to understand balance correction is to imagine the body as one rigid piece.

Imagine balancing a broomstick vertically on your palm. It will always fall unless you do something about it. In this case you can control the position of the top of the stick by manipulating the bottom under it so that the stick constantly stays vertical.

Let's think of this in different terms, where X(t) is the horizontal position of the top of the stick and X(b) is the horizontal position of the bottom of the stick.

If X(t) = X(b) this means the stick is balanced.

If X(t) /= X(b) this means the stick is falling.

The longer duration the stick falls, the greater the difference of X(t) and X(b) becomes.

This is where feedback comes in. You have control of X(b); and the sooner you can notice X(t) is out of alignment the less you will need to move X(b) to match the position. The longer it takes you to notice the change, the more work needs to be done in order to return to balance.

The farther the top is allowed to get away from center, the more distance the bottom must travel to match the position, thus a bigger corrective movement is required. When a bigger correction is required, the chance of losing balance goes up considerably.

The analogy is easy to make because the stick is a constant. Unfortunately, our bodies have many moving parts that add more variables in the balance equation. In a handstand, it is possible to bend at the following joints: knees, hips, back, shoulders, and elbows. Every one of these is a possible variable and the stillness in balance will come when all these variables can be eliminated.

Balancing your body uses the same principles as the stick. The more we can make our body like the stick, the simpler it will be to balance.

There is still a benefit in being able to segment the body at different joints. However, this will be discussed later.

For now, when learning to balance, strive to hold the body as one piece. It sounds simple but it feels very different when someone is actually in the handstand. All the more reason to get used to holding the position prior to beginning balance work.

The body as a stick.

Here is a breakdown of the roles of all the joints in the body:

Feet:

This will be your anchor for balance. The feet are the furthest point away from your center of mass and thus will be the most sensitive to changes in balance. They essentially take the place of X(t) in the stick analogy. Think of X(t) as the furthest point away from the base of support that should not be moving.

If you can keep the feet from moving you will achieve a solid balance compared to letting them sway back and forth. The farther the feet get off-center, the more off-balance you will be, so visualizing and maintaining the position of the feet is a very valuable balance cue.

I would also recommend point the toes as this helps complete the line aesthetically and increases awareness of the position of the feet.

Legs:

The legs should stay together, as if both legs were acting as one leg.

Strive to keep the knees locked unless you are bending them for artistic reasons.

Hips:

In an ideal balance, the hips will be open and immobile. Some styles of hand balancing prefer a slight pike in the hips for technical reasons. There are advantages to this, but my preference is a straight line at the hips.

Beginners may need to fire their glutes in order to lock the joint, but eventually this can be achieved in a relaxed state.

Bending at the hips is a common correction for underbalance, so it is normal to display some movement in this joint before the balance has been properly refined.

Back:

The back should be completely flat (or as close as your body type allows) with the ribs and chest pulled in. Posterior pelvic tilt will help take care of the lower back, and contracting the ribs will help flatten the upper back.

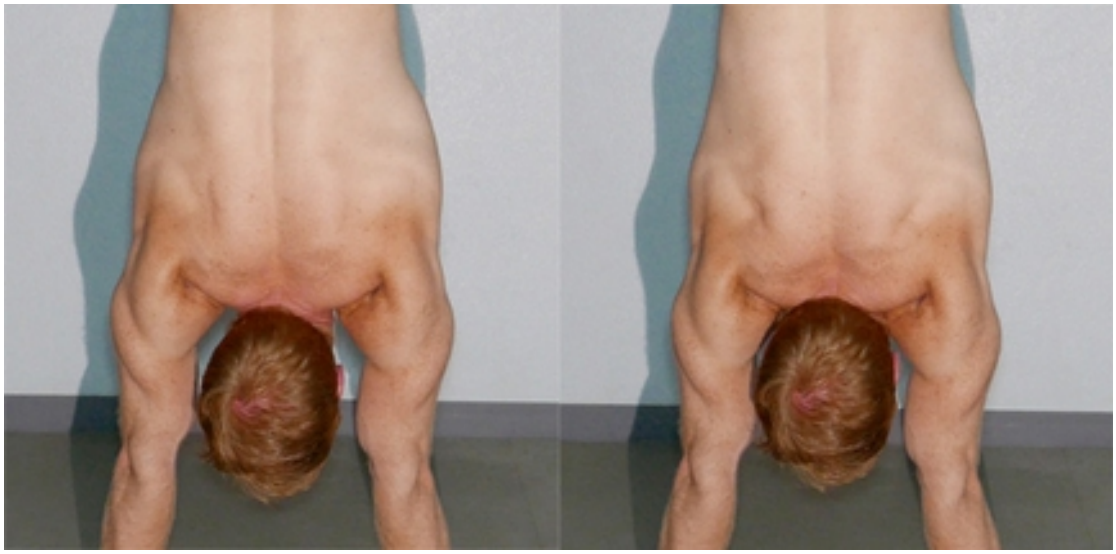
If the back is not flat, usually a broken shoulder angle is the cause. The torso and shoulders must work together to create one line.

Shoulders:

What to do with the shoulders during a handstand can be a little complex, and there is no technique that is 100% correct for everyone. There are, however, a couple of universal concepts that need to be addressed.

The first is locking out the shoulders. This joint is important because it creates a bridge between the base of support (the hands) and the bulk of the body. The handstand hinges around where the shoulders are placed. This means that improper shoulder position is the cause of most broken alignment. This also means that the whole body will react to any movement in the shoulders. One of the earliest and most profound pieces of advice I got was to “lock the shoulders”. This is a joint that must be solid in order to refine your balance and position.

How shoulder stability is achieved is up to the individual. Some prefer to fully elevate the shoulders and push tall, activating the upper trapezius. Others prefer to pack the shoulders, using the lats and lower traps for stability.



(left) Handstand with packed, lat-activated shoulders, and (right) elevated, trap-activated shoulders. Either can be stable depending on the individual.

My personal preference is to be somewhere in-between the two. The advice I typically give people is to go where your shoulders feel the most stable.

The next concept that needs to be addressed is to keep the arms vertical. The shoulders should be directly above the hands. It's something that can be achieved regardless of the shoulder angle. If the shoulders are in front of the fingers, this is what I would call being in a slight planche. This places more stress on the shoulders and wrists in addition to having a higher energy cost to hold. If this is your base technique, the consequences will add up over time. Having the shoulders behind the hands take the center of mass away from the body and makes it very difficult to balance. In beginners, this is often a symptom of a fear response in order to quickly tilt the body back to the feet.

In the ideal position, the shoulders will be at or near 180 degrees to the body. This is what allows us to create the desire shape.

People who have hypermobile shoulders can sometimes take the "shoulders open" cue too far and go past 180 degrees. This position is not recommended as the stability of the joint is compromised. At a more advanced level you can learn how to balance with increased shoulder flexion, but building a base first is more important.

Later on, movement in the shoulders can have an important use in balance correction. However, I cannot stress enough the importance of learning to balance with locked shoulders prior to adding movement.

Elbows:

The elbows should be locked and turned so that the pits face each other. A useful cue is to think of pressing the elbows in towards each other.

This is a crucial piece to using less energy to hold the handstand. When the elbow is straight, the weight of the body can be held up by the bone structure of the arm. At a more advanced level, resting on the elbow joint can allow the practitioner to partly relax their arms. This is similar to how you can relax your quads and glutes when standing with straight knees.

A bent arm requires a lot of muscular effort to be able to bear the weight. This means you will fatigue sooner and have an increased chance of the arms collapsing.

Why do people bend their arms? Often it's a psychological response. First off, it brings them closer to the floor and safety. Secondly, it creates an aid for balance. Bent elbows make it slightly easier to find a balance because it takes away some of the feedback, slowing down the rate at which you have to make corrections. This is similar to how bending your knees while standing makes you more difficult to knock over.

A physical reason for bent elbows is to take pressure off the wrists. Also, people with inflexible shoulders can sometimes achieve an open position only with bent elbows. However, in a freestanding handstand, I would actually place elbow extension at a higher priority than shoulder opening.

Straight elbows are also a must for treating the handstand as a resting position in the more advanced stages of skill development.

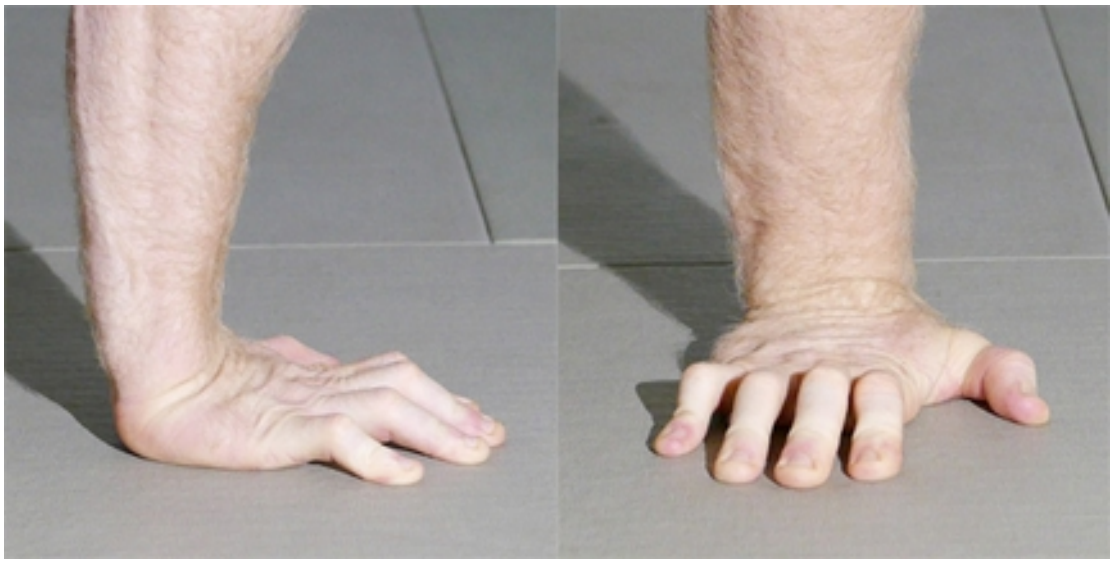
Some people can hyperextend at the elbows. It is completely safe to stand on your hands in hyperextension (although extreme cases should show discretion before full commitment). In some cases, hyperextension is actually preferred for both aesthetics and certain techniques. Note that I said it was safe to *stand* in hyperextension. This may not be the case when it comes to some more advanced balancing work such as handstand hops and jumps.

The elbows *can* play a role in balance, but only in particular situations.

Hands:

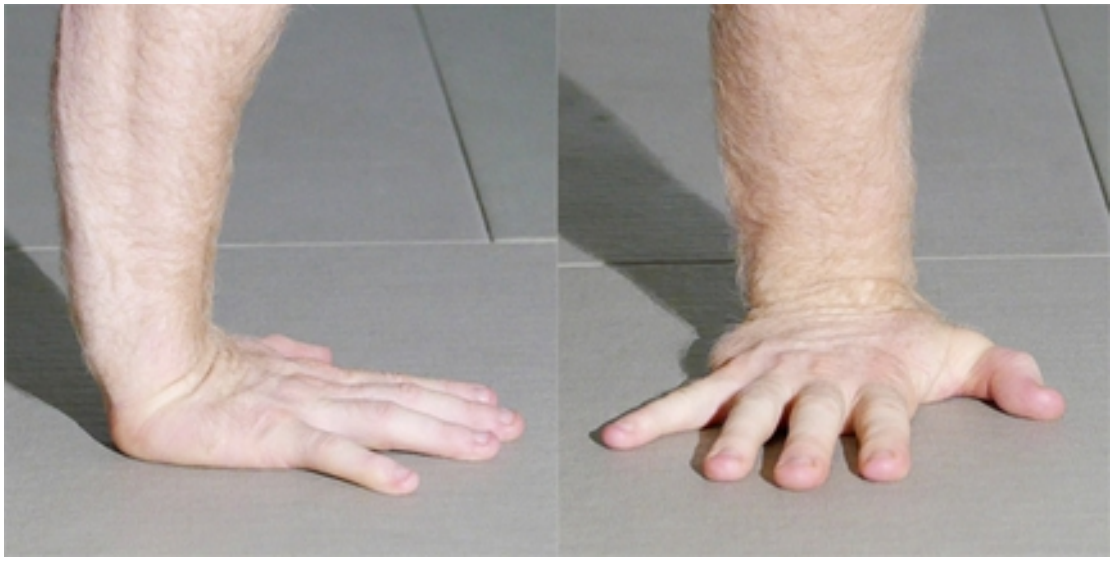
The hands will be the most important part of balance, as this is where all the control comes from. Ideally, the body stays as one piece while the hands do all the balance.

The typical hand position I teach is one where the heel of the hand, knuckles of the hand, and fingertips all contact the floor with the fingers curled inward. Think of creating a suction cup to grip the floor. This will allow for the most control.



"Active" hand placement, with fingers curled inward.

A flat hand would be considered a passive position compared to an active curled hand. It is widely considered much more difficult to balance with the hands flat, but a lot of beginners will do this out of ignorance.



“Passive”, flat hand placement.

Sometimes lack of forearm, finger and wrist flexibility can prevent people from achieving the active hand placement. Also, different surfaces can change how the hands work. My preference is to learn on hard floor first because this gives the most feedback.

Once the hands are activated, the weight can be transferred through the heel, knuckles and fingers of the hand when balancing.

Since you can fall only forwards or backwards, you will have most control aligning your strongest fingers in the direction of your balance. In this case, try to have either the index or middle finger of each hand facing forward. Having them turned in too far puts extra pressure on the wrists, while having them turned out too far makes it more difficult to control balance.

One more note: a practitioner should make several corrections per second through the hands in a balance where the body appears not to move. The hands should be active and constantly correcting.

Head:

There are several possible head positions, and none of them are wrong. A good handstand and balance is possible with any head position. However, there is a particular head position that makes learning to balance easiest.

The head can be in three places more or less during a handstand: in, out, and neutral.

Capoeiristas typically use the “head in” position so that they may keep their eyes on the opponent. This method can work, but is not very efficient for a beginner due to the excess of visual stimulation. Most of balance awareness comes from visual cues (remember how it was more difficult to stand on one leg with the eyes closed?). The head in position gives you a lot of visual information, but very little that you can use as a reference for balance or for where to fall.

Head neutral is something common in gymnastics. This technique is a bit more conducive to the dynamic skills seen in the sport. In this position, the gaze can be aimed at the floor beneath the hands or slightly outward. This head position is absolutely viable for different levels of handstand practitioners, but the important thing is not to confuse head and shoulder position. When inverted, some people like to pull the head in instead of opening their shoulders.

In my opinion, the easiest way to learn and hold the handstand is to pull the head out into a slight neck extension. This is more common in the hand balance and circus world.

The technique accomplishes several things. First, it gives a clear line of sight to the area between the hands. This is the point you want to focus on as it can give you a clear connection of where your body should be in space. Think of your body being aligned vertically from the point of your gaze. It also gives you a reference point of where to fall in case you lose balance. The other advantage this head position gives is that it shifts more weight towards the fingers without actually changing the body position. This offers a little more stability in the handstand.

Take note that the head and shoulders need to move independently of each other. Shoulders are to stay completely open regardless of head position. My preference for learning to balance is to have the shoulders open, pulling the head slightly forward into extension (neck tension should still be minimal) and looking at the floor between the hands.

Balance Conclusion

Do not get confused by all this information. The actual balance is really simple - you control the position of the body by manipulating the pressure on the floor with your hands.

Think of balancing as a feedback loop between the hands and the feet. The goal is to keep the feet on center. As soon as the feet come off the centerline, you must react as soon as possible to bring them back. The longer it takes to react, the larger a correction will have to be made to return to center, and the greater the chance of falling.

The goal is to make smaller and smaller corrections until the effort becomes minimal. The process will go from bigger to smaller corrections as you refine your practice over time. Eventually the corrections made to balance should be almost unnoticeable by an outside observer.

In a two-handed handstand, correction works in two directions: forward and back. Typically you can only fall in either of these directions. When the feet go off center you have to push them in the opposite way they are falling. You will notice that as the balance changes, the weight will go to different parts of your hands. If your feet go towards the fingers, press with the fingertips to bring them back. If the weight falls to the palms, press the heel of the hand into the ground, almost as if trying to lift the fingertips off the floor.

It is important to be careful not to press too hard either direction, as it can just as easily make you fall the other way. Refining the balance will take precision and practice, but it is a lot easier when you know what you have to do.

Now that the theory has been covered, we will put it into practice.

Chapter 5:

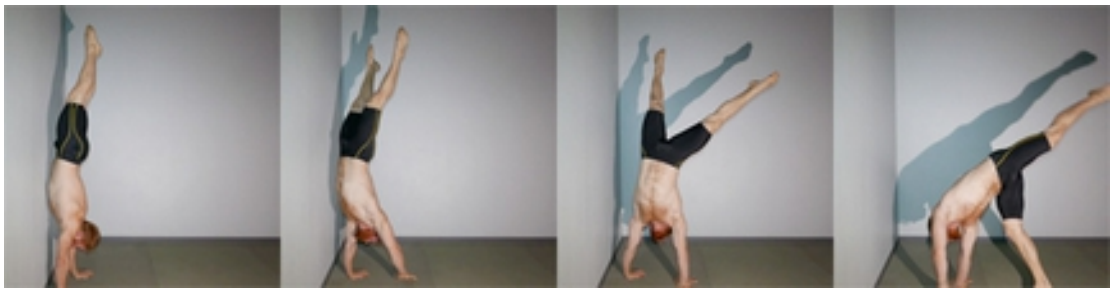
Balance Development

The Cartwheel (Bailing Out of a Handstand)

Before we begin true freestanding work we need to learn how to fall. There are many ways to bail out of a handstand, but there is one movement in particular that I prefer: the cartwheel.

If we fall towards the heel of the hands in a handstand, it is easy to land on our feet. The question is, how do we safely land on our feet when falling towards the fingers?

First, figure out your dominant cartwheel side. I cartwheel with the left foot in front, so my order of placement on the floor is: left hand, right hand, right foot, left foot. This means that when I bail out of a handstand, I step with my right hand and land on my right leg. Those of you who cartwheel with the right leg in front will step with the left hand and land on the left leg.



To learn to fall, you must simulate falling. The easiest way to do this is to begin from a chest to wall handstand and let your body fall in the direction of your fingers. To some degree, it's even acceptable to push off the wall here. You will reach a point that you can no longer control by pushing through the fingers. That is where you transform the forward momentum into a cartwheel.

Step one hand along a 90-degree arc so that it is along the same line as your base hand. Transfer weight over to the hand that just moved, and complete the cartwheel by landing on that same leg.

Keep the arms straight and look at the floor the entire time. Orientation is much easier when you can see where you are falling.

The order of operations is also crucial here. You must experience a fall prior to the bail in order to truly understand the sensation of falling forward. If you perform the cartwheel bail right, you should be moving perpendicular to the wall. Landing less than a 90-degree angle from the wall means you initiated the step and turned too early.

Being able to bail safely is very important; not only to reduce the chance of injury, but also to inspire confidence when we get to freestanding work. This move should be practised until it's smooth prior to beginning freestanding handstands.

Main points:

- **Chest to wall handstand**
- **Allow the body to fall towards the fingers**
- **Step one arm along the line of the other arm**
- **Kick down and land with the same leg as the stepping arm**
- **Look at the floor throughout the duration of the movement**

Chest to Wall Balance

Now that we are comfortable with the basic wall handstand we can start trying to apply balance theory to it. Keep in mind that balance adds another dimension to the handstand and is futile until you can hold the position comfortably.

Begin by getting into a good chest to wall handstand. Remember to apply the alignment cues so that the position is solid. From here we will learn how to manipulate the position of the center of gravity by using the wrists and fingers.

Start to lightly press the heel of the palm into the floor, keeping the body in one piece. You should feel that this starts to shift the weight towards your fingers and take your body away from the wall. Once off the wall, press the fingertips into the floor to bring you back. Proximity to the wall is important; as if you are too far the drill does not function the same way.

In this exercise, the entire body should move as one piece and pivot around the hands. It is very tempting to segment the body to get off the wall, but that's not a skill I teach until later. This actually gives the drill a dual purpose. First, it teaches balance manipulation through the hands. Second, it teaches how to balance freestanding in the same alignment someone is able to demonstrate with the wall.

This exercise may begin as simply a forward and backward oscillation of the body. Beginners can just start to feel more weight shift into the hands without coming off the wall at first. At a more advanced stage, students can begin to hold balances for several seconds or longer before returning to the wall.

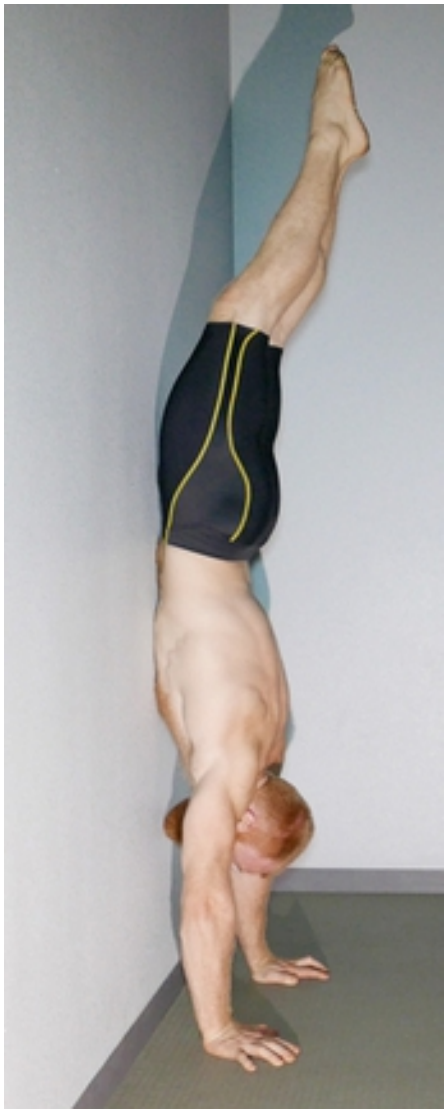
For this exercise, try to avoid a position where the feet come off the wall but the belly remains in contact. A picture demonstration of this is below.

I never allow any kind of push off the wall with the feet. That defeats the whole point of all of the balancing exercises and does not prepare students well for freestanding balance. When gradually coming off the wall, it's okay to let your feet touch until the last second when all the weight goes into your hands.

One more note is that with this exercise you run the risk of falling forward. Make sure you are comfortable exiting the handstand using a cartwheel or forward roll to avoid falling.

Main points:

- **Chest to wall handstand**
- **Press into the heel of the hand to bring the weight into the fingers**
- **Body comes off the wall as one piece**
- **Press down with the fingers to return to the wall**

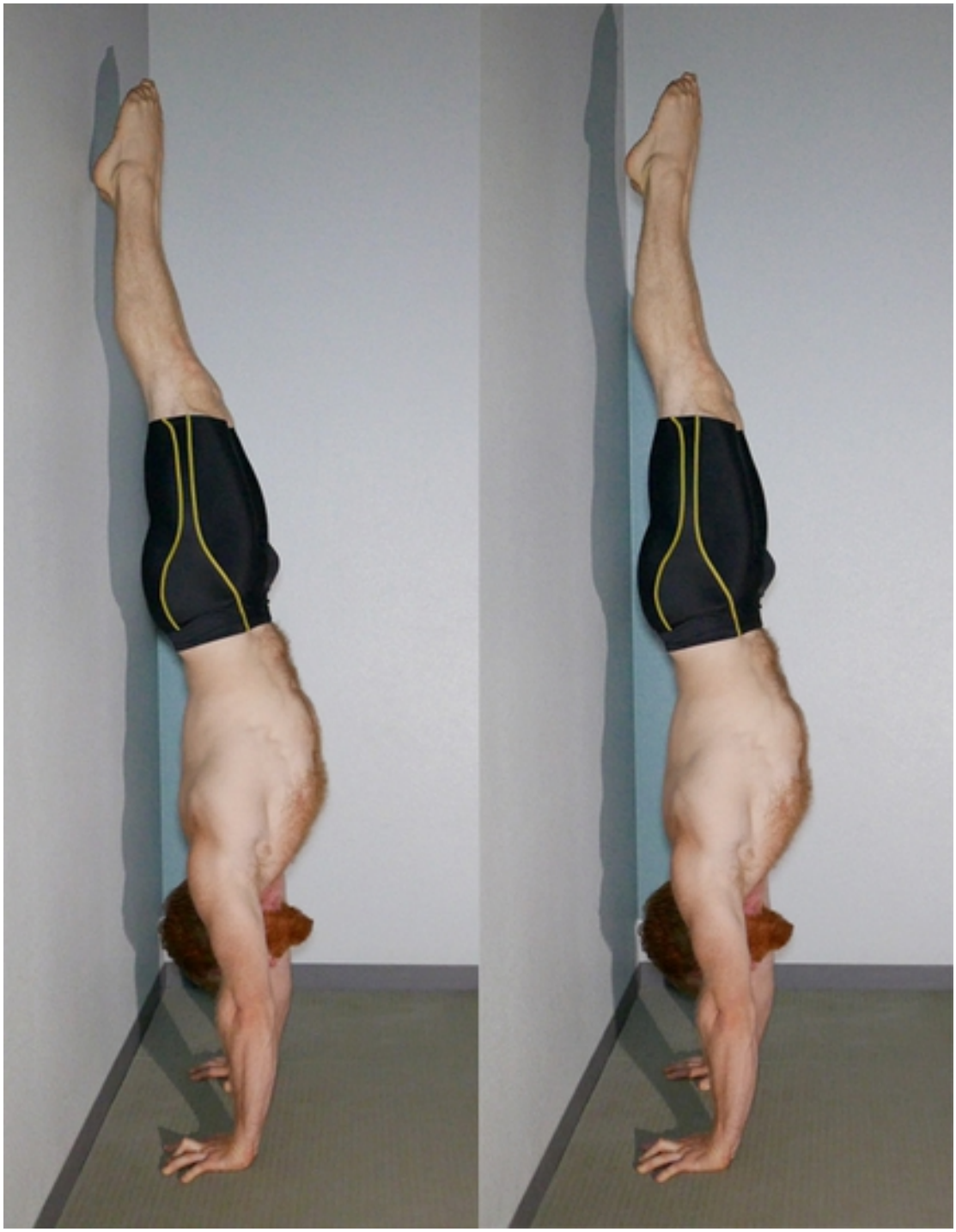


Note: Try to avoid a position where the feet come off the wall but the belly remains in contact.

Back to Wall Balance

The next drill is very similar to the previous one, but in different alignment.

Again, proximity to the wall is very important here.



Once in a back to wall handstand, start to apply pressure with the fingers until you feel the feet come off the wall. Press into the heel of the hand to return to the wall.

If performed correctly, there should be a very small amount of finger pressure needed to come off the wall. Pushing too hard or for too long will make you fall. Try to make changes in small increments.

This drill is very useful in teaching how much precision is required in freestanding balance.

Main points:

- **Back to wall handstand**
- **Lightly press into the floor with the fingers**
- **Feet come off the wall**
- **Press into the heel of the hand to return to the wall**

“Flirting” With the Wall

Once we get a general understanding of how to manipulate the center of mass using the hands, we can now start trying to balance with the intention of staying in free space rather than returning to the wall.

The wall is there as a crutch if needed, but the goal is to stay off the wall. Even in the basic wall handstand holds, there is a big difference between leaning on the wall for support, or using the wall as a guide for placement.

In the beginning, focus on form and technique rather than trying to max out hold times. Do not be afraid to come back to the wall to reset your form if you feel it is failing.

At first you can think of a set as how many times you can go off the wall and come back with control. Later on you can think of the ratio of how long you balanced; for example a 30-second set of wall balance where 20 seconds or more was spent off the wall.

Wall Scissor

The next handstand progression will take us a little further from the wall and help to prepare us for kick-up work.

Face the wall in a handstand, but this time allow more distance between the hands and the wall. About half a meter is a good starting point. Split the legs so that one is contacting the wall and the other is in free space. Both legs are to be kept straight with the back and shoulders in alignment.

Use the leading leg to pull the weight forward so that the trailing leg feels lighter along the wall. The hands should be engaged in preparation for manipulating the weight. Continue pulling the lead leg forward until the base leg starts to come off the wall. Try to find your balance in the split position.

From there, slowly and deliberately pull both legs in towards the center line until they are completely together. After finding balance with legs together, return to the split with one leg touching the wall.

This exercise should be performed slowly and with complete control. This means you should be able to pause at any part of the movement and be able to hold a static position there.

The weight transfer should come from the hands and the lead leg. Do not push off the base leg to get away from the wall. Pointing the feet is one way to help discourage pushing off the wall.

The main purpose of this drill is to start weaning you away from the wall and to simulate the top portion of the kick up to freestanding handstand. It also introduces the concept of movement isolation. The legs will be moving while the arms, torso and shoulders should stay perfectly still.

Main points:

- **Handstand facing the wall with a little bit of distance**
- **Upper body stays in alignment**
- **Legs in a split, both off center from the vertical line**
- **Feet pointed**
- **One leg contacting the wall**
- **Shift the weight towards the fingers to come off the wall**
- **Find balance in the split and slowly bring the legs together towards the vertical line**
- **Return to a split to find the wall again**
- **Be patient!**

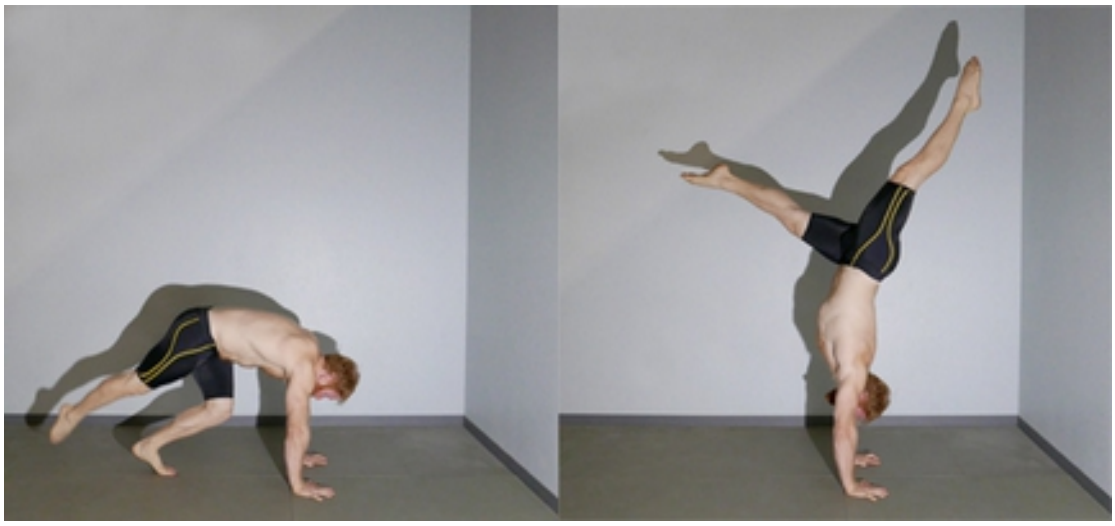
As you get more proficient in this exercise, feel free to increase distance from the wall. This will be more challenging since the legs have to travel further to reach center.

Kick-up to Handstand

The entry into a handstand can be a major cause of frustration for many people.

There are a myriad of ways to enter a handstand, but I typically teach the kick-up before any others. The kick-up to handstand works well with the wall scissor drill and allows more room for error to help find the balance. This method is in my opinion the easiest for beginners to learn.

The entry I teach differs from the standard kick-up seen in gymnastics. I have modified the movement to make it more specific to finding balance. In addition, this particular technique may help lead into more advanced entries and skills later on.



Start by positioning your hands on the floor shoulder width apart. Elbows should be straight with the fingers facing forward. Position the shoulders directly above the hands and apply weight to the arms. The application of weight to the hands should allow you to engage your hands and grip the floor. This way, the shoulders can be a constant with the body moving around them.

The kicking leg needs to be straight and ready to lift. The base leg can be bent or straight, depending on personal preference and flexibility. Personally, I prefer to keep the base leg bent so I can jump off of it.

From the starting position, the kicking leg lifts as the base leg pushes off the floor. When the hips rise up over the head you must simultaneously open the shoulders to achieve a straight line between the arms and torso.

When learning this movement, it will be easier to stay in a split before pulling the legs together. It allows more room for error in placement and control of balance.

The entry to handstand is not about power, but rather precision. It's about knowing exactly the right amount to kick to end up directly on top of the hands. When performed correctly, it should almost feel like you get "stuck" on your hands.

In order to appreciate how to catch the handstand at the top of the kick, you need to understand what it feels like to kick too short or too far. Unfortunately this will take a number of repetitions to master.

By the time you are ready to train kick-ups, I do not recommend using a wall. When the wall is available, people have a tendency to kick with the intent of reaching the wall as opposed to actually catching themselves in their handstand. This is a progression for a freestanding handstand, so it is important to start weaning yourself

off of the support. By this point in the process, you should have already mastered the cartwheel bail-out, and falling forward should not be a safety concern.

In the beginning, I recommend practicing the entry and balance separately. This means refining the kick to the handstand where you can place yourself in the right position on most attempts. Ideally, this should be consistent before trying to fight for balance in the freestanding handstand.

Balance should still be practiced with the aid of the wall until the kick-up is solid.

Main points:

- **Shoulders above the hands**
- **Elbows straight**
- **Shift weight into the hands**
- **Kick with the lead leg, push off the base leg**
- **Open the shoulders as the hips rise**
- **Try to "get stuck" in the handstand**

Freestanding Handstand

True freestanding balance work can begin once the kick-up, bail-out, and wall balance are consistent.

This training will not completely replace wall work just yet, but it is definitely a major milestone.

Hand balancing is a very unique acrobatic discipline because it allows for unbroken control throughout. This control and deliberation is something you should feel in your practice; it will become even more prevalent in freestanding balance.

Using the kick-up, we now "add" the concept of balance to it.

Just like adding balance to the wall handstand, this will add another layer of complexity.

The goal is to cultivate the reflex of making balance corrections through the hands any time they bear weight, just like standing on the feet. This means that when you kick up to handstand (using the technique previously discussed), it allows you to have control of the balance on the way up rather than only at the top.

The kick drills in combination with the wall scissor should prepare you well for this.

Now is the difficult part…

Fight to stay up. The balance won't be consistent, whether it's from set to set or day by day. Through mindful repetition you can gradually increase your hold length, confidence and consistency.

Partner Spotting

I realize that many of us train alone, but having a partner can help immensely during the transition into freestanding handstand. Performed correctly, a good spot is one of the most helpful ways to progress to extended balances of 30 seconds or more. However, you and your partner must be educated in the ways of spotting a handstand, otherwise it may hinder your progress.

From the balancer's perspective, getting spotted for a freestanding handstand should not be attempted until all the previous alignment, wall balance and kick-up work is at a proficient level. What we want to do here is make the movements predictable so that there are no surprises when your partner has to catch you. If you get scared or flail your legs about, your partner will be hesitant to help. Try to make the spotter's job as easy as possible.

Do not think about relying on the spotter. He or she is there to pick up the pieces you are missing in your balance, not to do the work for you.

For spotting, I try to avoid using force or lifting my partner unless the particular situation calls for it. The goal is to guide the partner to the position in which he or she is balanced. From there you can give them gentle nudges when the balancer starts to fall away from the center line.

I recommend standing off to the side of your partner. This way you can avoid getting kicked if your partner is too aggressive. Proximity is important here as well. You want to be close enough that you can still manipulate your partner without having to reach.

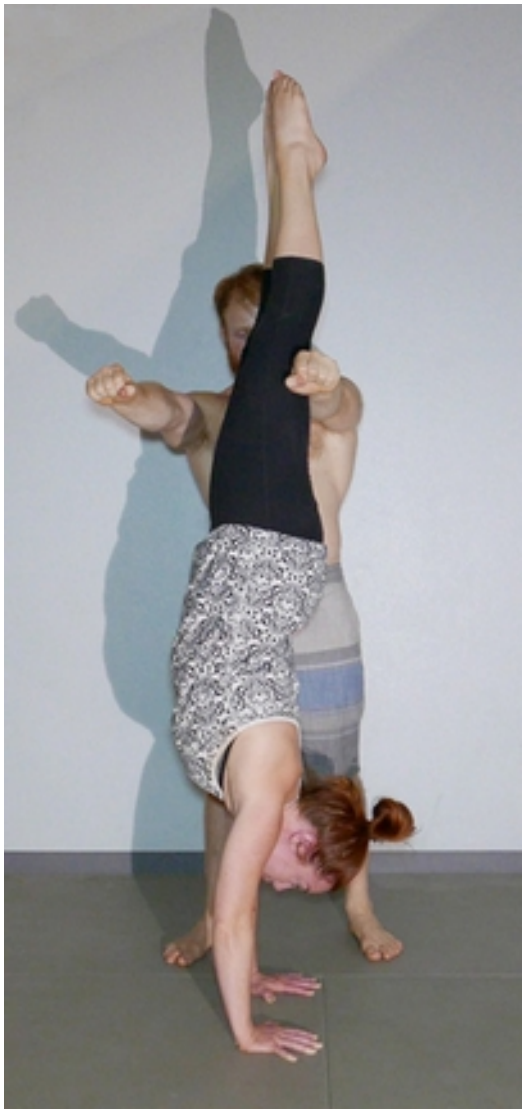
Remember to communicate with each other. This way the balancer can let the spotter know if he/she should modify technique or let go. Another bonus to communication is that it encourages breathing while in the handstand.

When spotting, catch your partner's legs/feet when they come together at the top of the handstand. Your partner should already be proficient enough with the kick-up to be able to find a vertical position. Upon catching the handstand, the spotter should help the student place him/herself in a balanced position. After that, light guidance should only be given when the student falls away from their center.

More advanced spotters can manipulate and correct the partner's position; however, this takes more experience and may not always be the most helpful thing to do.

Remember, the most effective spot is accomplished by letting your partner do as much work as possible.

There are several ways to spot, and some take more skill than others:



The easiest way is to keep one hand on either side of the body so that the partner can oscillate between them.

If you can reach high enough, a great way to spot is to place your hand on the end of your partner's feet. This reinforces the feet as an anchor point for balance.

A light touch above the knees will help them to find balance, while a slightly heavier push downwards can help your partner focus their alignment and stack their joints.

My personal favorite method to spot is through pulses. This takes more experience as you have to feel your partner's balance, but this will give them the most feedback.

Place your partner on his/her center-line where the weight is over the hands and no forwards or backwards falling occurs.

Once your partner is situated, gently let go and let him/her balance unaided. The moment you see his/her balance falter, catch and place your partner on center again to reinforce the position.

This method allows your partner to see the corrections he/she should have made to stay up, but removes the frustration of having to kick-up all over again.

Chapter 6:

Layer Two of Balance

Saving the Handstand

Introduction to Layer Two

After learning a basic freestanding balance, the next step is to learn some new balance corrections and reflexes to add to what we have already built.

I teach the concept of balance in three layers.

Layer one is what we have already learned: to make corrections through the hands while keeping the body still. This layer of balance will always be active. While balancing with the hands makes for a clean balance, it leaves little room for error or versatility. The hands only allow the body to move a small amount before it is in a state of falling that cannot be corrected.

The idea behind layers two and three of balance is that we can allow more room for error in order to “save” the balance. This is accomplished by breaking the handstand line in order to shorten the body.

Note that a straight handstand must already be developed prior to any serious work in breaking the line. The following exercises must come from and return to the base of the straight handstand.

True mastery of the handstand is to never fall, and in this section I will break down techniques of how to manage this.

Learning to save the balance in different ways will lead to increased strength and control. It also progresses well into more advanced skills like press handstand, handstand push-ups, and various artistic shapes. In addition, these skills are excellent preparation for balance on different surfaces and apparatus where exiting the handstand is not as simple as it is on the floor.

To explain the theory of what it takes to save the handstand, think back to what we do when we balance on our feet. Stand straight up and slowly start to lean backwards. Do not let yourself walk. The body’s first line of defense to avoid falling is to press the heels into the floor. Failing that, the options are to either take a step or shoot the hips forward and chest back. Try the same thing falling forward. After you can no longer push with the toes, you accomplish the save by either taking a step or bending forward at the hips and/or knees.

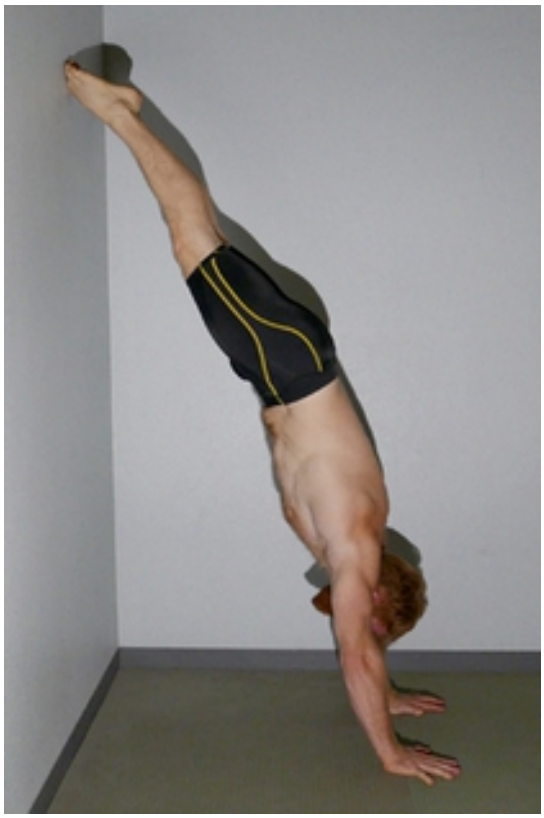
Breaking alignment shortens the length of the body and brings your center of mass closer to the base of support. The closer your body is to the base of support, the further it allows you to be off-center while still being balanced. This means the straight handstand is actually the most difficult position to balance in, even though it’s the most mechanically efficient. This is why many people naturally prefer a broken alignment when they learn to balance. It minimizes the risk of falling.

That is one way to do it, but what we are eventually looking for is a straight handstand with the control to be able to break the line and return to the original shape.

Saving Underbalance, Second Layer

Underbalance is defined as falling back towards the heel of the hand. There are several ways to correct it, and they all involve isolation of a specific joint.

We will use the wall in a very specific manner to learn these exercises.



This is the "starting position". Begin in a chest to wall handstand, but place the hands far enough from the wall that you are required to lean into the wall for support.

The hands should be considerably farther from the wall than in the foundational balance drills we practiced earlier. The idea is to simulate falling towards the heel of the hands so we can learn how to correct it.

The following exercises will gradually lower the center of mass using the specific movement mentioned. At a certain point, the feet will come off the wall and all the weight will be in the hands. The further the hands are from the wall, the more difficult it will be to take weight into the hands.

As always, pushing off the wall with your feet is strictly prohibited. Once the feet are off the wall, balance in the broken position. Then, reverse the corrective movement to return to a straight handstand without losing equilibrium.

Shoulder Isolation

From the starting position, lean forward in the shoulders while keeping the arms straight. Balance in the closed shoulder handstand.

To reverse the movement, think of bridging the feet over the hands as the shoulders press back to an open position. The torso and legs should remain as one piece.

This is a great drill for building strength and control in the shoulders. Later on it can lead to handstand and planche transitions as well as freestanding handstand pushups.

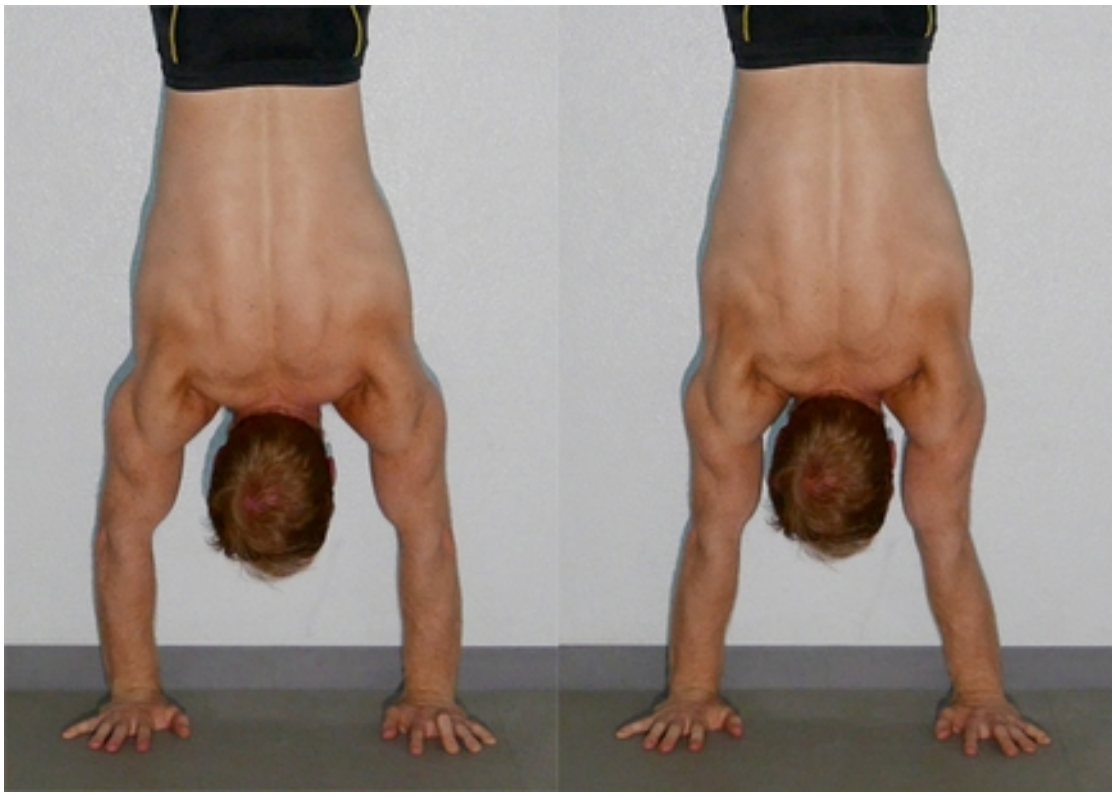
Hips Isolation

Bend at the hips to lower the center of mass and take the weight into the hands. Balance in the piked handstand before returning to straight body by extending the hips.

The shoulder angle should remain open, and the hips should stay above the hands.

Elbows Isolation

This movement does not allow as great a range as the previous two, so it will require closer proximity to the wall to perform.



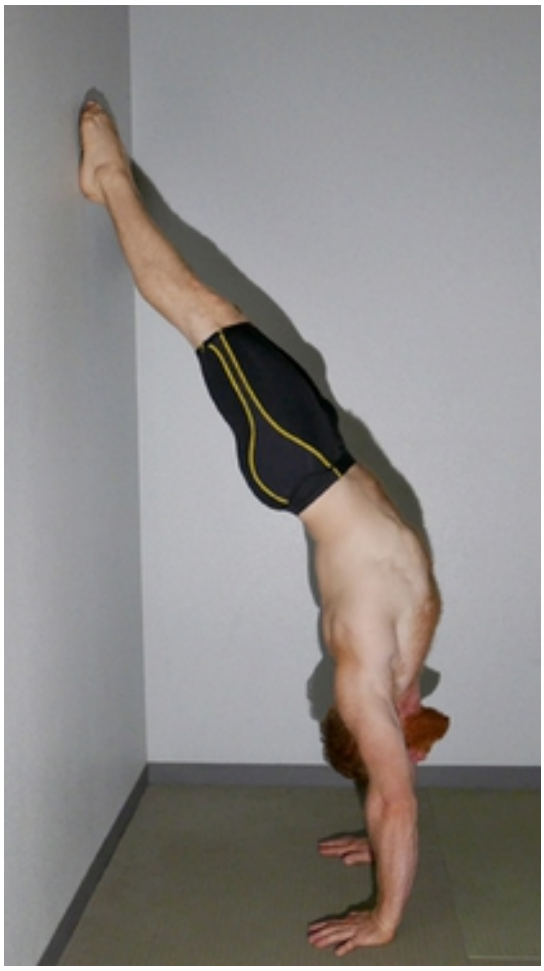
Maintaining the body as one piece, with the shoulders open, bend at the elbow to lower the body and bring the weight into the hands. Balance in the bent elbow position and then lock the elbows out to return to the base handstand.

The elbows should track outwards in this drill because the shoulders are not moving. There should only be a slight bend in the joint.

This drill can also be used as a corrective exercise for students who have a natural tendency to bend their elbows when they balance.

Saving Overbalance, Second Layer

The next step is to learn what to do if falling towards the fingers. The cartwheel bail is always an option if on the floor, but the idea is to build enough control to not have to use it.



This is the "starting position". Begin in a back to wall handstand with the hands a much greater distance from the wall than before. The body should be leaning weight into the wall to support itself.

Again, we will use specific movements to shift the weight off the wall and into the hands by breaking the alignment of the body.

Make sure to find balance in the broken position before returning to straight body. The further from the wall the hands are, the more difficult it will be to shift weight.

As always, do not allow any push off the wall with the feet.

Hollowback Handstand Shoulder Isolation

From the starting position, lean the shoulders away from the wall until the feet no longer bear any weight. The body should pivot around the shoulders without any arch (or minimal arch to be realistic) in the back.

To return, lean the shoulders forward towards planche, shift the weight towards the fingertips and bring the feet back above the hands.

This is where the shoulders should be flexed past 180 degrees to the back when performed properly. The shoulders will also be behind the heel of the hand, making it more difficult to keep a grip on the floor when balancing.

Learning to counterbalance the shoulders and the body in this range is an excellent precursor for learning the Mexican Handstand or Hollowback skill. It will also increase general shoulder flexibility when it comes to the regular handstand.

After finding a balance in the broken line, returning to straight body from here can be especially challenging.

Banana Handstand Correction

This movement is not technically a joint isolation, but I still classify it under the second layer of balance.

From the starting position, initiate a bend in the back to lower the center of mass. Let the head go forward as well. The arms will stay vertical to the floor but the shoulder angle in relation to the back will change. What we end up with is the "banana" position common to old time hand balancers.

After finding balance in the banana shape, return to straight body by pulling the ribs in, straightening the back and opening the shoulders.

Spending some time passing through the banana handstand not only builds control, but also exposes us to the history of the art.

Chapter 7:

Layer Three of Balance

Exploring Variety

Introduction to Layer 3

The third layer of balance is the most complex, but allows the furthest deviation off of the center-line.

It involves a combination of multiple joint angles being broken, which shortens the length of the body even further than before. In this case, the elbows, shoulders, back, hips and knees can all aid in balance corrections apart from the wrists and fingers.

In order to practice the third layer, take the wall handstand as far away from the wall as possible. You should practise taking weight off the wall and into the hands by only manipulating the position of the body. Try to see how far off the wall you can get without pushing off of it. As before, try to control the broken position before returning to straight handstand.

Note: The exercises for layers two and three are broken-down forms of the real movements. Once your body learns that these are possibilities, they will be autonomous when balancing. The wall makes it easier to learn and isolate specific movements, but once they can be applied in free space the wall is no longer needed (unless the exercises are specifically being used for warm up or conditioning).

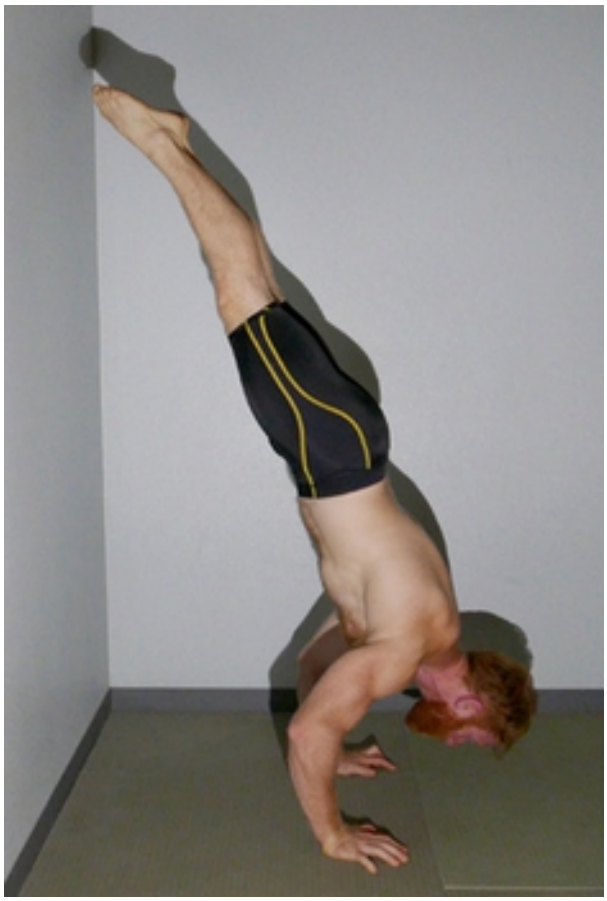
There are a wide variety of positions that can be taken in this phase. Below are some of the more common variations.

Layer Three Underbalance

Here are some possible combinations of layer three underbalance…

Shoulders and Elbows

Demonstration…

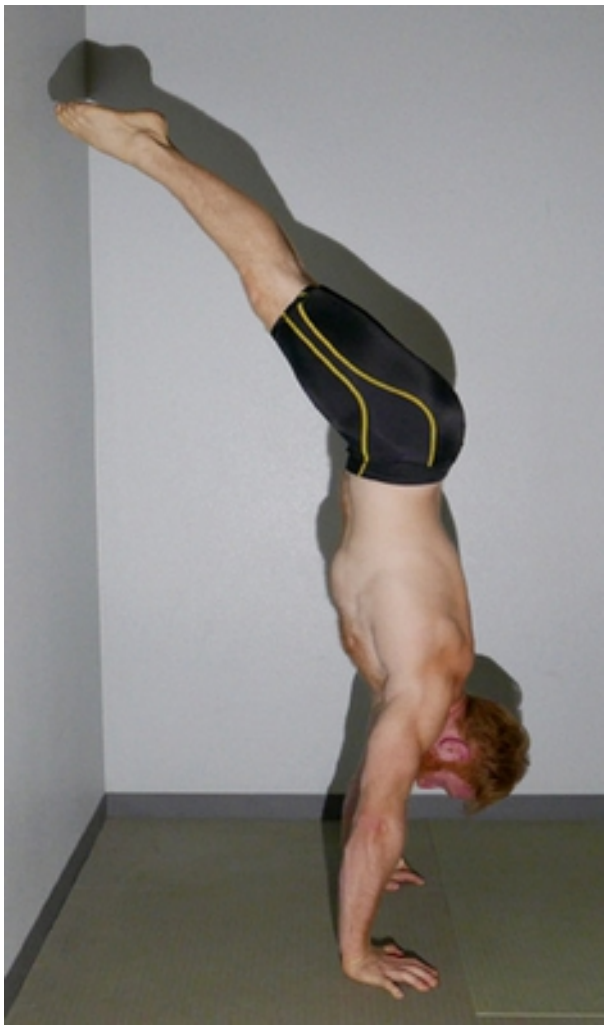


Lean forward in the shoulders and bend the elbows. When the elbows bend this time, they should move inwards to stay close to the body.

This is an excellent precursor for handstand push-ups.

Shoulders and Hips

Demonstration…



Lean forward in the shoulders and bend the hips at the same time.

This will allow for more range than hips or shoulders alone.

Shoulders, Elbows & Hips

Demonstration…

Lean forward at the shoulders, bend the elbows in, and let the legs drop.

Shoulders, Elbows, Hips and Knees

Demonstration…

Same position as above, but letting the knees bend to shorten the body even further.

Layer Three Overbalance

Overbalance in the third layer is not quite as elegant as underbalance, but it is still worth mentioning.

Here are some possible combinations that are more common…

Shoulders and Back

Demonstration…

This method takes the shoulder opening we isolated in layer two, and adds a bend in the back to allow for a lower center of mass.

Shoulders, Back and Knees

Demonstration…

Bending the knees in both the Mexican and banana positions can allow pressing from an even greater distance away from the wall.

Practical Applications of the Broken Line

The idea behind learning to break the line to save balance is to give you more tools with which to be able to stay up on your hands longer. Hand balancing is an art of control. The more techniques you have in your arsenal that allow you to maintain control, the better off you will be.

Learning the first layer of balance allows for more stillness and refinement. The second and third layers should act as a backup to be able to stay up longer or if something goes wrong. This is where the phrase “fighting for the handstand” really comes in. Eventually, exiting a handstand should be completely intentional. You will “allow” yourself to come down because your set is finished.

What it comes down to is having enough awareness to know exactly how far you are off-balance and what movement is required to bring it back. Once you have solid balance in layer one, you can even test to see how well you can balance. Enter a freestanding handstand and allow yourself to fall. See if you have a quick-enough reaction to catch yourself and bring it back. The goal is to see how far you can let yourself fall and still be able to stay on your hands. Not only does this improve your balance, but it also builds a ton of strength and prepares you for advanced movements and concepts.

There is a downside to breaking the line to balance, and there is definitely an optimal time to introduce it into someone’s training. The first time I expose people to freestanding balance, it is only with the use of layer 1. I purposely hold back on explaining layers 2 and 3. This is to encourage students to perfect their basic movements before adding any further complexity.

Layers 2 and 3 of balance allow for imperfections in the basic movements. Learning these skills too early in the process can lead to the student relying on them and wasting energy. The entry to handstand is a great example of this. If I kick perfectly on-target, then I have to work only minimally through my hands to maintain balance. However, if I kick short of vertical, I would not make the handstand using the same technique. But, I can bend my elbows to get underneath the kick to still make it up to handstand, despite the kick being underpowered. This is an excellent application of different balance techniques, but I still used more energy than I should have needed to get up. Plus, the movement was not as clean as if I had just kept my arms straight and kicked properly.

A problem can appear when I stop caring about the precision of my kick because I know I have the control to catch it. Bending the elbows in the entry can then become the new habit, which will cause a lot of frustration for learning skills like press handstand and beyond.

The idea is to break the line only if you have to. Clean balance is still the priority above all else.

What About Walking?

What about the use of walking on our hands as a method of catching the balance?

There is some validity in this, and I actually learned to walk on my hands prior to learning balance. There are many benefits to being able to walk, but there is an optimal time for when to start training it. I define walking as catching yourself after you have fallen, whereas balancing is catching yourself before you fall. Because of this, I will usually teach balance prior to walking.

Learning to walk on your hands too soon can lead to some habits and issues that are not helpful. First off, when learning to balance on different apparatus, the option to take a step is not always there. The choices might be to either balance or bail out. Next, walking goes against the balance reflexes we have worked so hard to build. Walking, even if it's in-place, has the center of mass constantly moving. This deactivates the balance corrections made through the hands and also completely negates our goal of still balance. Lastly, walking makes it more difficult to keep a good handstand line. This can be especially detrimental to someone who has not yet developed good alignment habits yet.

Don't get me wrong, though, I support handstand walking. I think it offers many benefits, and I actually count if as one of the prerequisites prior to starting one arm handstand work.

However, it should not be seriously developed until after proficiency in balance is attained. The approach to learn each should be kept separate.

Chapter 8:

Programming, Standards and Milestones

Programming

Programming for hand balancing can be a tricky subject. To many people's dismay, there is no set and rep scheme that can get you a handstand. The handstand is largely skill dependent, and no cookie-cutter program can take into account the differences in an individual's technique and learning process.

Even if the physical elements can be achieved systematically, the handstand has many psychological elements that need to be addressed.

This is an issue that cannot be solved on paper. I believe that training must be individualized, and students need to learn to think for themselves. Thinking and being able to modify a program is especially important in handstand work when the balance can fluctuate considerably from day-to-day.

I have never trained handstands "by the numbers". I find that this approach can often limit people's own feedback and awareness because they are too focused on finishing their sets and reps.

What I can do is offer some standards, milestones and priorities to help structure your training.

Below are different levels, along with training priorities and questions to ask before moving on.

Neophyte

This is the level of absolute beginner; someone who has zero experience with hand balancing. They have basically never been upside down before.

Prerequisites:
- None

Goals:
- Working up to handstand against the wall

Priorities:
- Learn body alignment
- Find a resting position in arm support
- Get comfortable upside down
- Improve work capacity of being on the hands

The absolute beginner can make progress the fastest, but also has a higher chance of experiencing a plateau when they reach their psychological limit of what their body considers “safe”.

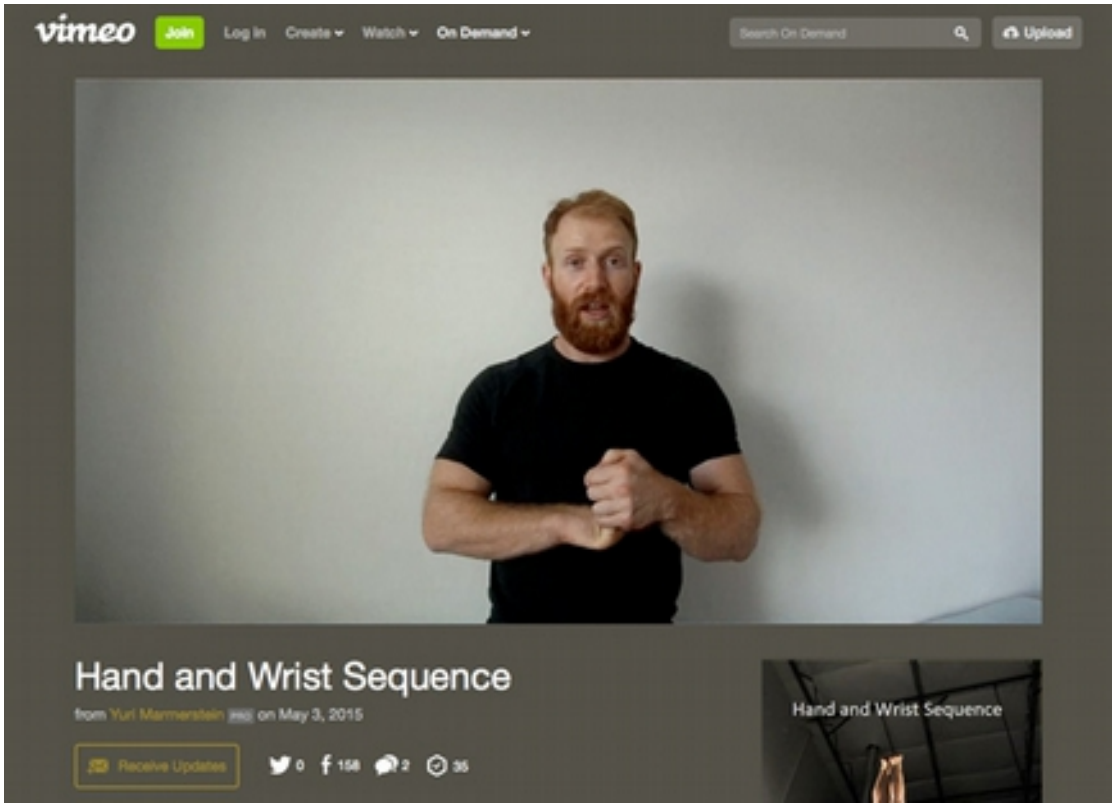
Once the student understands stability in the pushup position and is not afraid of the headstand or inverted hang, their main workload should consist of alignment drills and chest-to-wall handstand progressions. In this case, the handstand progressions will begin in a pushup position and slowly increase the height. As the legs get higher, the hands should walk closer to the wall. The idea is to slowly work at building comfort in an increasingly more vertical position.

My standards of being comfortable in a static hold at this level are as follows:
- Extended hold time (at least 30-60 seconds consistently)
- Steady breathing (talking in the position should not be a problem)
- Structural support (straight elbows, alignment cues, etc.)
- Awareness of self (able to take corrections while in the position)
- Awareness of surroundings
- Clean exit (come out of the position without falling on a consistent basis; and not be out of breath when the movement is complete)

Training sessions should be short and to the point. There are a lot of new stressors that the body and mind need to acclimate to, so it’s best not to push too hard. On top of that, building a solid base of good habits is very important for the future. It’s best to avoid practicing in a fatigued state, and it’s a good idea to quit as soon as form is compromised.

There will be a couple of physical issues encountered here. The first is work capacity of spending time on the hands. Wrist soreness is common in hand balancing, so it’s best to take things slow in the beginning. Another common issue is shifting weight from hand to hand while walking up the wall. Support needs to be especially solid since each arm will momentarily bear the full weight of the body. I cannot stress enough the need for straight elbows.

Students at this level may also reach their psychological limitations of what they consider safe. If they go too high in the handstand too soon, they start to shut down and collapse. There is no hurry to learn the handstand. Go higher when you feel ready and take small steps.



Check out my wrist warm-up on Vimeo for techniques on how to speed up wrist acclimation.

Initiate

An initiate is someone who is able to perform a wall handstand, but still has some basic refinements to make before they are ready for balance work.

Prerequisite:
- Wall handstand

Goals:
- Improve technique against the wall
- Get comfortable with the cartwheel bail
- Introduce balance through the hands

Priorities:
- Comfortable static holds of both variations of wall handstand (as listed earlier)
- Learn to fall forward and cartwheel out of chest to wall handstands
- Build up training volume and work capacity

Training sessions at the initiate level should still be kept fairly short. Be aware of your total volume as well as the duration of your rest periods. Try to have an idea of the total number of sets on your hands you are able to complete prior to fatigue setting in. Also, have a general idea of the approximate length of each set. A good standard to have is being able to train with a 1:1 work to rest ratio.

Someone who can demonstrate multiple extended holds of a good wall handstand with little rest in-between will have a much easier time learning to balance their handstand.

How much work capacity is enough? That depends on the individual, his/her goals, and the skills being worked on. More advanced skills require more time to master and thus will require a higher work capacity. At a beginner level, a good standard to set is to be able to complete a 10-minute work set, 5 minutes of which should be spent on the hands. Eventually, we will be able to increase work capacity through the skill work itself.

Once the base standard for wall handstand is achieved, then it is time to play with the balancing drills. When I use the term “play” in this scenario I mean to attempt a few drills after the primary work is complete. Do not worry about counting sets and reps here.

This will also be the time to practice the bailouts.

Note that physical acclimation to the positions here is a priority over balance. Many of the “good habits” we try to build can easily be lost if the student is exposed to balance too suddenly.

Fledgling

This level is reached after the wall handstands are performed at a high standard and the bail is consistent.

Prerequisites:
- Proper wall handstand
- Consistent bailout

Goals:
- Cultivate the sensation of balancing through the hands
- Learn to manipulate weight distribution of the body through the hands
- Maintain the same form on and off the wall

Priorities:
- Wall handstand balancing drills
- Wall scissor
- Introduction to freestanding kick-ups

Fledgling status is the first time where learning balance becomes a priority over acclimation to position and support.

Balance is more difficult to quantify in terms of training progress, so it's still important to include some basic wall handstand holds. A certain amount of wall work should be present at any level. It helps to reinforce the alignment, warm up the wrists and shoulders, and calibrates the body to prepare it for balance.

After everything is warm, start with the basic wall balance drills. At first the goal is to learn to manipulate the position of your body through movements in the hands. Focus on maintaining the body as one piece with the hands as a pivot point for movement. Be very strict about keeping the same body shape on and off the wall.

Another purpose for the basic wall balance drills is to find where on your hands you prefer to keep the weight. In the chest to wall variation, you shift the weight from behind the hands forward into the heel, knuckles and fingers. In back to wall, the weight goes into the fingers first, then knuckles, then palms.

Try to be aware of where it feels the most comfortable to maintain the weight of your body. Beginners usually perform better when they have more weight on their fingers. This helps them feel the engagement of gripping the floor. At a more advanced level, it may be beneficial to shift more weight to the knuckles or even the heel of the palm. This allows the fingers to relax and decreases the energy cost of balancing. However, it also increases the risk of falling, which is why I do not recommend this technique to beginners.

As proficiency with the exercise increases, the wall drills should look like less of an oscillation and more of a shift into a balance. Learning to move and eventually balance in smaller and smaller increments will pay dividends in the future.

The basic standard we are looking for is consistent 10-second holds off of the wall with minimal body movement.

Note that when balancing on the hands, participants are sometimes subject to time dilation. Time seems to slow down when in a handstand compared to an outside observer. When timing your handstand holds, make sure you have access to a stopwatch, metronome, or outside observer to ensure accurate readings.

Once 10-second holds are achieved, feel free to add in some wall scissor sets. These require more patience to find the control and offer less help from the wall. In

addition, wall scissors introduce two new concepts: the split position and leg movement.

It's also a good idea at this level to start exposing the body to freestanding kick-ups. No high volume or balance just yet; introduce the concept so it will be less foreign later on. That means "play" with it here and there.

Novice

At the novice level, balances next to the wall should be solid. This is the stage at which we begin to prepare for freestanding balance.

Goals:

- Consistent wall scissor holds
- Consistent freestanding kicks to handstand without balance

Priorities:

- Longer duration holds further from the wall
- Accuracy when shifting weight from feet to hands with no wall support
- Preparing for freestanding balance

The bulk of the training here should be focused on control in the wall scissor and training the kick to handstand.

Wall scissors should be performed slowly, with the legs held together for at least 10 seconds on each rep before returning to the wall. We also want to work up to being able to achieve several static holds for each set of the wall scissor. This will help to ensure accuracy during freestanding kick-ups.

As for the kick to handstand, this one takes a bit of trial and error. You need to know what it feels like in your body to place yourself directly over your hands. This is accomplished through repetition and feedback. Feedback is about modifying the technique after analyzing success of the previous repetition. Kick too far? Kick less. Kicked short? Kick more. It's more complicated than that, but try not to overthink it. Modify your approach after each repetition until you find what works. When you find something that works, try to replicate it. We are looking to be able to catch a handstand in four out of five attempts kicking up.

Once the wall scissor and kick up are developed separately, it is time to combine them for freestanding balance.

Also note that even though alignment and wall holds are not a priority at this point, it is still useful to include them in your training or revisit them from time to time.

Amateur

Amateur status is where we can finally prioritize freestanding handstand work.

Goals:

- Consistent freestanding balance

Priorities:

- Spend more time away from the wall
- Continue to reinforce the basics

At this level we can use the alignment and wall drills for warm up and calibration before heading out onto the floor.

We want to build consistency in both catching and balancing the freestanding handstand. Do not get discouraged if this takes a while. There are many factors in your daily life that can affect balance. Sleep, physical activity (or lack thereof), alcohol and caffeine are just a few variables that can alter your body's reflexes. Due to the precise nature of hand balancing, their effects can be substantial and we must learn to work with them.

This means that no matter your routine, the handstand will not feel the same every day. You have to work with this to build an average consistency. Some days you will feel solid, some shaky. Some days you may not be able to catch the balance at all. Do not be afraid to regress back to the wall if freestanding balance is not successful for that day.

As far as standards go here, I generally do not count anything less than 10 seconds for training purposes. The basic goal we aim for is 10 seconds of freestanding balance with minimal body movement. This should be accomplished in four out of five attempts. If you want to be picky, the clock starts when you are all the way up, rather than when you kick; and stops at the moment of loss of control, rather than when the feet touch the ground.

The entry and exit into the handstand should be clean and controlled as well.

Of course, 10 seconds is a bare minimum to consider a repetition balance instead of luck. The real milestone we are trying to hit is 30 seconds. This time frame should not be a personal best, but something that can be achieved on-command. This is the certainty I am looking for when I say "hold a handstand".

Intermediate

30 seconds balance is a good benchmark to begin exposure to new skills. However, to really solidify the skill, 60-second holds are the marker we are looking for.

Goals:

- Consistent 60 seconds of balance

Priorities:

- Clean up the holds by reducing movement in layer one of balance
- Increase range of control by learning and applying layer two and three balance corrections
- Test yourself in different situations

A 60 second handstand here should not be a maximum effort, but a general marker for endurance, technique and capacity. Consistent 60 second holds mean that you own the freestanding handstand.

Sessions at this level can begin with alignment and wall work, but the majority of the practice should focus on the freestanding handstand.

Start to implement the second and third layers of balance to allow for longer and more consistent holds. Work the isolations on the wall before applying the new balancing techniques to your freestanding work. Being proficient in using the different variations of layers two and three of balance will lend a huge advantage to the advanced hand balancing skills you may learn later on.

Try to be aware of the quality of movement going into and coming out of the handstand.

This is only an intermediate level because it is the base from which the more advanced skills come from.

Chapter 9:

Where to Go Next

Where To Go Next?

Learning to perform a handstand is a very unique form of body control to develop. It cannot be simulated from any other means and offers tons of benefits for body and mind.

You can learn an incredible amount about yourself by starting the journey to achieving a 60-second freestanding handstand. Apart from the obvious perks of greater strength, control and awareness, the handstand practice itself can be a form of meditation. A hand balance session is a fantastic way to find focus while shutting out distractions from the outside world.

If you wish to continue to develop your practice, there is a world of possibilities open to pursue in the realm of hand balancing. As you will see, there is plenty to do after the freestanding handstand is proficient. The basic handstand is not the end, but rather the beginning of the journey.

There are two ways to develop a skillset: vertically and horizontally. Vertical development refers to learning new skills that are more difficult and complex. Horizontal development refers to acquiring variations of the skillset on the same level of difficulty.

Vertical Development

In the case of hand balancing, vertical development can include:

- Dynamic Handstands
- Press Handstands
- Mexican Handstand
- Handstand Pushups
- Handstand and Planche Transitions
- Plyometric Handstands
- One Arm Handstand Progressions

Horizontal Development

Horizontal development can include:

- Variations in body position
- Variations in how to enter and exit the handstand
- Balancing on different surfaces
- Balancing on different apparatus
- Handstand Locomotion
- Basic Tumbling
- Ultra-Refinement of Basics

Chapter 10:

Frequently Asked Questions

Frequently Asked Questions

How long will it take me to learn 'X'?

There is no clear answer to this question for many reasons. Everyone learns at a different pace depending on their own physical and psychological restrictions, as well as their background and how often they practice.

If your main concern is the time it takes you to achieve this skill, you may be in the practice for the wrong reason. The journey itself is where you learn the most; the result is just a by-product.

The answer is: It will take you as long as it needs to, so it is best to be content with this to avoid frustration.

Hand balancing and the physical arts in general are pursuits that can easily keep you occupied the rest of your life. Over time your abilities, goals and perceptions will change. There is plenty of material to work with in order to stay interested. My suggestion is to enjoy the process rather than concern yourself with deadlines.

What's the secret to doing 'X'?

People want to hear that it's simply one deciding factor that keeps them from their goals. When they fix or start to do this one thing, all the pieces will fall into place.

The reality is very likely to not be that simple. Though there are definitely some "a-ha" moments in handstand training, you are more likely to see small incremental progress over time. These moments sometimes only come after months of developing the right concepts, and they can be difficult to duplicate.

It's a hard selling point, but the real secret is to put in the time and effort.

I'm working on 'X', got any tips?

This is the most general question. It is akin to calling a mechanic and saying, "my car is making a weird noise when it runs, how do I fix it?". Chances are the mechanic can do nothing for you until you take the car into the shop and run some tests.

Handstands are the same. The learning process is individual, so the cues and corrections have to be specific. I might give two different people completely opposite cues for the same skill depending on their body type, learning style and strengths/weaknesses.

I believe in some universal concepts but not a universal method. General advice is never as effective as specific advice.

Why doesn't my handstand look like "X person's"?

With all the media out there, it is very easy to imagine a perfect handstand line to follow based on someone else's image. Remember, the same line will look different on various people.

It's about finding the line that is best for the individual, and eventually embracing that aesthetic. Some people have the specific body type where the straight handstand naturally clicks for them. Others have to work for a long time to achieve the same straight handstand. A few never quite get "straight" but can still find an efficient alignment for how they are built.

I cannot stress the importance of individuality enough when it comes to building your own practice. It is good to set certain standards, but even better to understand how to apply them.

Why is this different to what my coach told me?

There are many styles and purposes for the handstand, so it is natural that different teachers will have varying viewpoints on how to perform and teach the skill.

Keep in mind the particular teacher's background, experience and purpose for the handstand. You will see big differences in circus-, gymnastics-, yoga- and breakdance-style handstands.

If you are working with a particular teacher, it's good to respect his/her perspective and follow along. Just remember to keep an open mind. If a particular technique doesn't feel like it's working then it may be necessary to make certain adjustments or find a new teacher.

Ultimately, I want students to be aware enough of their own practice to determine whether someone's teaching will correspond well with their own training.

How do I break my plateau that I'm stuck on?

Progress in handstand is very non-linear. Not only will you see major differences in your day-to-day training, but even the same session will have its own ups and downs. This can make it difficult to quantify progress and can lead to some frustration. Ultimately, you just need to keep training past the plateau.

If that's not enough, here are a few ways to make training more interesting and help with progress:

- Get a training partner, even if it's not a regular thing. Your partner can act as a spotter or another set of eyes to check your form. Just having someone else around can make you try harder, as well.

- Change training locations. Location can give you different sensory input and have interesting effects on your skills. If you regularly practice at home, try going to the park. Maybe practicing at a fitness or gymnastics gym will give you the change of pace you are looking for. Try practicing at a public location. Having other people around and possibly watching can give some people a boost they would not get at home by themselves.

- Hire a coach for one-on-one training. Having someone else's eye, spotting and perspective can help a lot with breaking through a plateau when you're stuck. You can always gain new insights to take back to your personal practice.

- Attend a class or workshop. There are a couple of reasons why this is helpful. The first is to gain insight into another teacher's approach and perspective behind the skill. There is always something to take away here. Next, it puts you in a room with others who have similar interests and are part of the same community. This can give you some temporary motivation to push a little harder in your training.

- Take a break and come back to it. Unless you are training to be a professional or have set deadlines, there is nothing wrong with taking some time off. A break can help your body recover, and can help your mind see a fresh perspective of the training. In my own practice, I have often taken breaks and found improvement when I came back.

How often should I practice?

Hand balancing is fine-tuned skill work, so the general answer here is “as often as possible”. How often did you practice when you learned to stand on your feet?

To give a general idea of a high level, professional hand balancers often train from 3-6 hours a day for several years in order to achieve mastery of their skill.

I understand that many of us have lives, and our goals are not related to being professional hand balancers. Even with this in mind, I would say that practicing at least 5 days a week is important to really make progress and monitor your training. The reason for this is that many factors in our lifestyle can have a significant impact on our proprioception and balance ability. Training often can help to adjust and work with these differences. Training only once in a while will feel very inconsistent and can impede progress.

Of course, training sessions do not have to be long. You can get a lot out of just 15-20 minutes a day if you are diligent (up to a certain level).

Another option here is called “Greasing the Groove”, a concept made famous by Pavel Tsatsouline. The general idea is to perform a higher volume of submaximal sets throughout the day instead of one session. This can work well to improve work capacity and increase skill level through greater number of repetitions.

Naturally, the higher level you achieve, the more work it takes to improve further. At a certain point in your training, more practice time will be required to keep up.

How do I fit handstands into my other training?

When practicing handstands, the idea is to be as fresh as possible both mentally and physically. If you mix this with other training protocols, I would advise that you perform the handstand practice first. It can be done after warming up, or even as part of an extended warm-up.

Fatigue can change the skill quite a bit, so I do not advise practicing handstands after any other kind of strenuous activity unless it is strictly for the purpose of conditioning.

Once you start to increase confidence, feel free to play with handstands throughout the day independent of your other workouts.

What should my programming look like?

This is a very difficult question to answer, especially to people who are coming from a strength and fitness background.

Skill work does not always progress through a sets-and-reps mentality the same way strength training does. In the beginning, when developing time on the hands and work capacity, you can use a “by the numbers” approach. However, once balance becomes the priority, the training becomes more about feeling certain sensations in the body and refining them.

This is not something that can be explained through meticulous programming, but rather just doing the skills and applying the proper feedback. This does not mean that your training structure should be chaotic, but you need to FEEL the training rather than concern yourself with the numbers completed.

Also, keep in mind that seeing progress in skill work is not the same as with strength. When it comes to a strength-orientated mindset, you are basically improving if you can move more weight or perform more reps. But in hand balance, the obvious markers of improvement are the hold time and handstand line. There are also many less-than-obvious markers for improvement. These can include, but are not limited to:

- Quality of movement in and out of handstand
- Precision of the hold
- Consistency of both entrance and holds
- Breathing patterns
- Awareness of surroundings
- Amount of prep time needed to get into handstand
- Being able to combine handstand with other movements

So, even if you feel like you have made no progress, you may not be looking in the right places.

I personally like to structure training in this order: warm- up, then skills and then conditioning. The warm-up would be exercises to help you perform the skills better (like stretching and basics), the skills are your main, and the conditioning is strength and endurance work that is likely to cause fatigue. This is a very basic template, so people can figure out their own training protocol themselves.

I can already balance a handstand but my alignment is poor. What should I do?

It all depends on what your goals and standards are.

If you are looking to perform hand balance at a higher level, it may benefit you to spend time refining your line to make the advanced skills easier to learn.

If your handstand practice is purely for enjoyment, then it's up to you. There is no authority that states handstands must be straight. The straight handstand is still relatively new in the world of gymnastics, acrobatics and circus.

Feel free to include some corrective drills and stretches to straighten out your handstand over time, but there is no deadline or obligation here. You have already achieved a great thing by learning to balance, as it's something no amount of alignment work can teach you.

Note: Regardless of whether straight or broken handstand is your preference, it is still worth your time to refine your practice to minimize the energy cost of the skill work.

What kind of standards should I set?

To answer this, you have to ask yourself some questions of your own. What am I training for? Why do I practice handstands? What are my goals?

If you are eventually looking to perform professionally or train to stand on one arm, this will require higher standards. As you progress, you will need to be aware of more aspects of the skill. These can include angles, aesthetics, fluidity and transitional elements among other things.

If you are training handstands to improve and add to your performance in a physical art that involves it, you have to learn how to integrate the skills together. This can mean sacrificing the handstand from a purist perspective in order to have it fit a certain role. A good example would be a bananeira (handstand) in a capoeira roda, or variations of a handstand freeze in breakdancing. Another example would be passing through an arched handstand and snapping to hollow during a back handspring. The “pure” handstand can be modified to fit into different situations.

If you are doing handstand work simply for the enjoyment factor, this will also be treated differently as far as standards go. Keep the practice enjoyable above all else. Over time, learn the technique that works best for you.

Closing Words

Ultimately, there are several reasons why I like to teach and practice handstands. I think the handstand is a valuable physical art for building a very unique kind of body control.

First of all, anyone practicing any kind of acrobatic art would greatly benefit from the training. Being more comfortable upside down and learning to make precise adjustments can have a great carryover to acrobatic arts regardless of whether they involve handstands or not.

Next, the handstand can serve as an internal meditation practice apart from being a physical art. To hold a handstand requires an immense amount of focus, and this can work very well for centering the mind and tuning out all distractions.

As purely a physical art, handstand practice leads to increased strength, mobility, and resilience of the wrists and shoulders.

One more thing that makes the handstand unique as a practice is that there are no shortcuts. There are no instant gains; progress happens over time through hard work. You can't buy a handstand or take a pill to make you better. The only way to get better is to practice.

To add to the last point, the simplicity of the practice makes it easy to return to. No equipment is required but your own body.

To anyone interested in pursuing the art of hand balancing, I want this to serve as a general guideline to structure your training. I want practitioners to be able to make consistent progress and to be well-educated about the art.

About the Author

Yuri was not particularly athletic as a child. His journey into the physical arts began in college, where he drew inspiration from martial arts films and old time strongmen. He studied physics in university, but quickly found that working in a lab or office was not suited for him. He has since decided to pursue his love of the physical arts.

Yuri began his training as a young adult with no guidance, and eventually worked up to performing at a professional level. His progress and teaching style was developed through endless persistence, experimentation and observation.

Yuri has trained with and learned from world-class hand balancers, circus artists, gymnasts and other experts in their field to further his perspective. He has also practiced a variety of other disciplines including martial arts, dance, weightlifting, gymnastics and circus. All of this gives Yuri a very unique method to teach someone of any age or skill level how to get upside down.

Above all, Yuri still considers himself a student, trying to learn all he can from any situation.

Exercise Glossary

Alignment Exercises:

Back to Floor

Back to Wall

Chest to Floor

Chest to Wall

Acclimation Exercises:

The Cartwheel

Frog Stand (or The Crow)

Headstand

Inverted Hang

Kick-up to Handstand

Partner Spotting

Push-up Position

Wall-Leaning Exercises:

Back to Wall Handstand

Chest to Wall Handstand

Balance Exercises:

Back to Wall Handstand

Banana Correction Handstand

Bent Shoulders and Back Handstand

Bent Shoulders, Back and Knees Handstand

Bent Shoulders and Elbows Handstand

Bent Shoulders and Hips Handstand

Bent Shoulders, Elbows and Hips Handstand

Bent Shoulders, Elbows, Hips and Knees Handstand

Chest to Wall Handstand

Elbows Isolation Handstand

Freestanding Handstand

Hips Isolation Handstand

Hollowback Shoulder Isolation Handstand

Shoulder Isolation Handstand

Wall Scissor