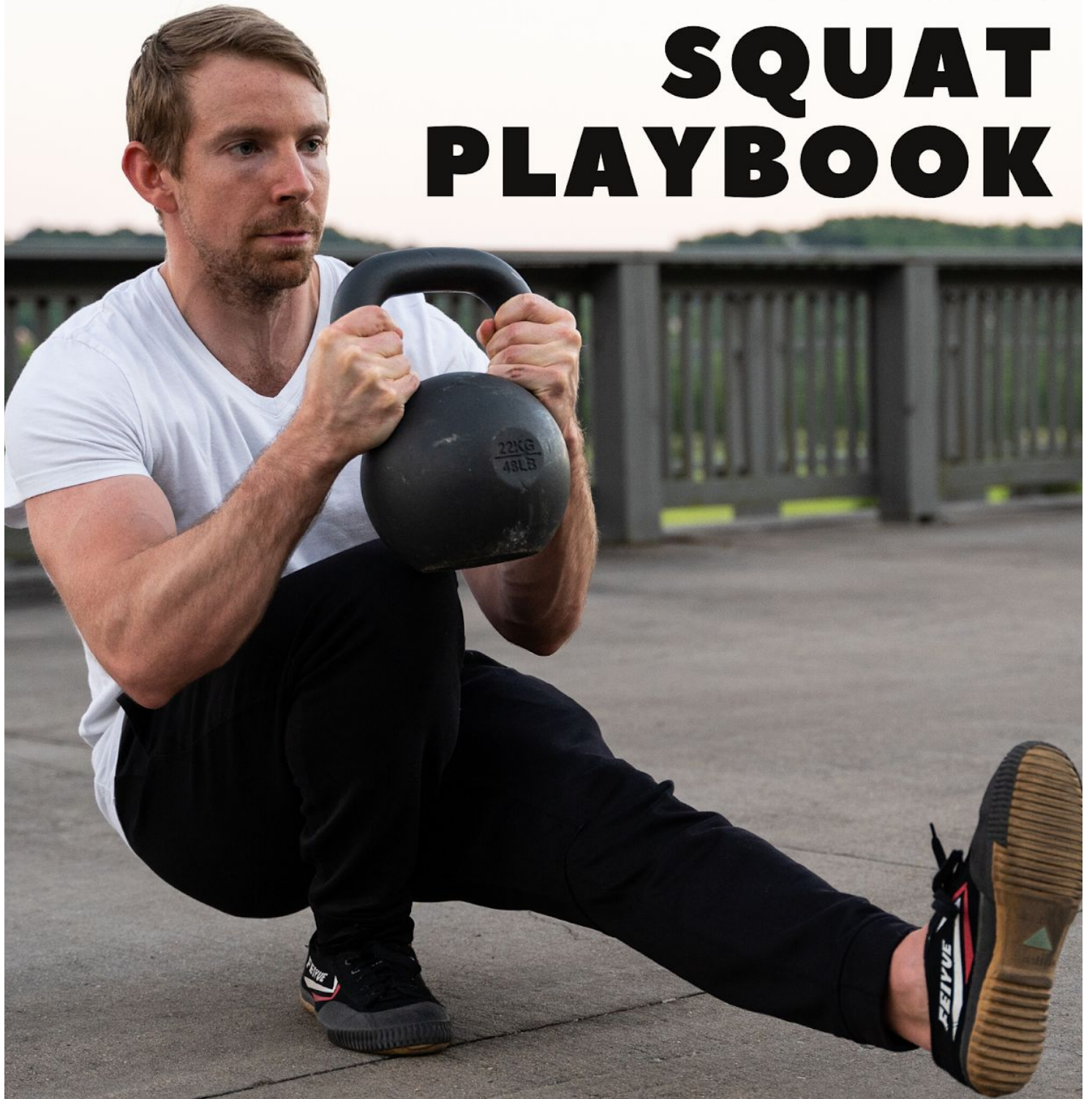


# PISTOL SQUAT PLAYBOOK



**By Zack Henderson**

The one-legged “pistol” squat is a tremendous exercise and training it covers a lot of ground - it’s both a *push* and a *pull*, and demands strength, mobility, flexibility, balance, and focus to perform consistently and correctly.

When I started my training journey, I had no access to a gym, much less a squat rack. It was all bodyweight training and whatever I could manage with 2 kettlebells. I remember reading about the importance of deep squatting and how sitting in chairs all day was destroying our health.

Squatting calf-to-hamstring became an obsession. Soon enough, I discovered the mighty pistol squat and it blew my mind.

A full ROM squat *on one leg!?*

*Sorcery!*

Or so I thought at first.

Then - *could I do that?*

Thus began a months-long process to own the pistol, on both sides, at the drop of a hat.

My approach was less than optimal, but my practice was intense and consistent. I’m sure I drove Mom crazy by demanding she critique my form multiple times a day, nevermind she had no clue what the heck I was doing.

With time, the elusive pistol squat came under my control and I’ve been able to maintain it for years by keeping up with the skills and drills you’ll learn here.

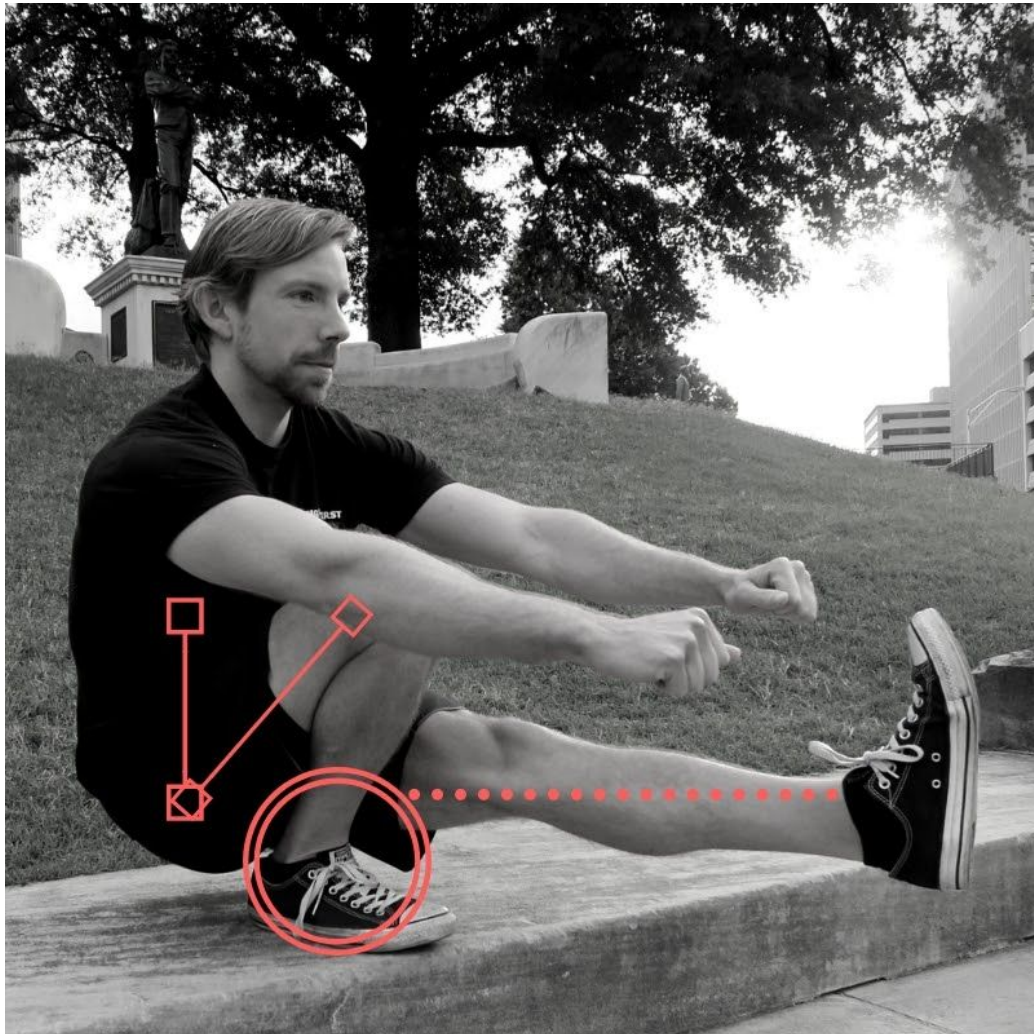
What follows is a distillation of the best material I’ve come across for training up to, and beyond, your first pistol squat. All credit is due to the work of Pavel Tsatsouline, the StrongFirst Bodyweight curriculum, Karen Smith, Gray Cook, Andrew Read, Andreo Spina and the Functional Range Conditioning protocols, Scott Dunaway, Zach Long and the dozens of smart coaches and therapists I’ve been lucky enough to learn from.

\* The pistol can be a very challenging movement to execute and it is not appropriate for every body. While you're sure to benefit from some of the exercises herein, understand that the pistol squat is **not** a necessary movement for optimal health. Please exercise good judgment.

## Zero to One

Many lifters I speak with feel stuck and struggle to perform clean, unsupported pistols on a consistent basis. There are many challenges to overcome to get that first rep!

While a comprehensive biomechanical breakdown of the pistol squat is beyond the scope of this manual and my expertise, we are going to set our sights on these 3 areas of focus:



**Ankle  
Dorsiflexion**

**Hip Flexion**

**Deep Squat  
Strength**

You'll need plenty of each, plus some other movement strategies, to knock out strong, clean reps!

While you may find a magic progression that instantly unlocks new levels of strength, chances are you'll have to stay patient and experiment to find the combination of drills that you need.

## **Before We Go...**

To get any value from this manual, you should be able to perform at least 10 full range-of-motion (hip creases below knees) bodyweight squats. If this isn't the case, seek out a local fitness professional and get this baseline squared away.

Additionally, you should be able to stand on one leg for 10 seconds each side. If this presents an issue, go see your doctor.

Unlike many traditional lifts that demand a neutral spinal alignment, some amount of low-back rounding is unavoidable with the pistol. This being the case, we should take extra precaution to ensure the lumbar spine is prepared.

Here are 3 drills/clearing exercises to perform first - the cat/cow stretch, child's pose, and seated forward folds:

[Lumbar Flexion Drills](#) <-- Click for video

If any of these cause pain, get checked out by a professional before proceeding.

## **Key Area #1 - Ankle Dorsiflexion**

Ankle dorsiflexion is the ability to close the angle from the top of the foot to the shin.

Range of motion here is a huge component of any squat exercise because as the hips lower and the knees travel forward, the angle between the foot and shin must close in order to keep the foot rooted.

Unfortunately, a life spent in shoes has given most of us tight ankles and sleepy feet.

The pistol puts an incredible demand on the foot and ankle. Not only are we moving through a full range of motion squat, but we are also doing it while balancing our entire bodyweight on one foot!

You could have the strongest quads and hammies around, but without adequate ankle range, the only maxing out you'll be doing is on the leg extension machine.

Ok, so how do you know if dorsiflexion is your issue?

To be fair, there isn't a specific standard. Because everybody is different, folks will require slightly different amounts of dorsiflexion angle to perform a pistol.

If you have to elevate your heel or hold a counterweight to get full depth, you'll want to prioritize ankle work.



Let's start with a dorsiflexion assessment:

- From a half-kneeling position, place the front foot a fist's width from a wall
- Keeping the heel down, rock the knee forward to the wall



(Note that the baseboard adds about a ½ inch to the distance to the wall!)

Can't get to the wall without your heel coming up?

You'll likely need a combination of active and passive strategies to get there. Revisit this assessment often to test the effectiveness of your approach.

Read through all of the routines that follow and you'll find programming considerations in the next section.

## **Ankle Flexibility Routines**

(When knee can't touch the wall)

Day 1:

[Foam Roll Calf](#) x ~ 1 Minute each

[Roll Foot Sole](#) x ~ 1 Minute each

[Manual Posterior Tibialis Release](#) x ~ 1 Minute each

A) [Elevated Calf Stretch/Raise](#) - 3 x 5 each

B) [FMS Ankle Mob](#) - 3 x 10 each

[Single Leg Deadlift](#) - 3 x 5 each

Day 2:

[Calf/Hamstring Smash](#) x ~ 1 Minute each

[Ankle Circles](#) x 10 each way

A) [Elevated Calf Stretch/Raise](#) - 3 x 5 each

B) [Prying Squat](#) - 3 x 5

[1.5 Goblet Squat](#) - 3 x 5

Alternate these routines for 4-6 total sessions per week.

Knee touches the wall with a flat heel?

You've likely got all the ankle flexibility you need!

In this case, you can skip passive stretching and soft tissue work in favor of more active drills that promote strength and control.

## **Ankle Flexibility Routine**

(When knee can touch the wall)

Day 1:

[Ankle Circles](#) x 10 each way

[Tibia Rotations](#) x 10 each way

[Big Toe PAILS / RAILS](#) - 1 Minute passive stretch, 20s push/pull x 3 each

[Toe Raises](#) x 5 each variation

[Ankle PAILS / RAILS](#) - 1 Minute passive stretch, 20s push/pull x 3 each

A) [Single Leg Deadlift](#) - 3 x 5 each

B) [Elevated Pistol Hold](#) - 3 x 3 -5 each

Repeat this routine for 3-5 sessions per week.

The fight for dorsiflexion is won a millimeter at a time. Stay patient and consistent!





## Key Area #2 - Hip Flexion

Hip flexion is the ability to bring the upper leg up towards the torso. Maintaining control in the hip at a deep closed angle is key for safety and strength in the bottom of the squat.

Also, with all the focus on the “working side” that’s doing the actual squat motion in the pistol, it can be easy to overlook what’s happening on the “floating side.”

To keep the floating leg straight and parallel to the ground takes tremendous hip flexor strength and control. Unfortunately, the attention we give to our hip flexors rarely goes beyond stretching them.

Active hip flexion training is conspicuously absent from most programs and this ultimately creates gaps in movement and mobility.

If you can achieve full pistol depth (dorsiflexion is cleared), but lose strength in the hole or cannot keep the opposite heel from touching the ground, consider active hip flexion priority #1.

## Hip Flexor Strength Routines

Day 1:

[Lying Banded Hip Flexion](#) - 1-3 x 5 (10s each)

[Standing Hip Flexion](#) - 1-3 x 5 (10-20s each)

[Standing Knee Hinges](#) - 1-3 x 3 each direction

[Assisted Pistol \(Squat Hold\)](#) - 1-3 x 5 (5-10s each)

[Iron Curtsy](#) - 1-3 x 3 (10s contract/20s relax) each

Day 2:

[I Squat Bottom Hold](#) - 1-3 x 5 (10-15s)

[Cook Hip Lift](#) - 3 x 10 each

[Pistol Shape Hanging Leg Raise](#) - 1-3 x 3-5 each

[Partner Reverse Band Pistol](#) - 1-3 x 5 each (10-15s)

[Quadruped Hip Rotation](#) - 1-3 x 3 each way

Repeat these routines for 3-4 sessions total sessions per week.

Be aware that if you've never trained deep hip flexion with these intense isometrics, you'll probably experience some cramping. It's perfectly normal and you can work through them.

Doing all these drills for 3 sets might be overkill when you first start. Work up in volume and intensity over time.

Be sure to balance out all that flexion work with some extension too. Mixing in a few sets of kettlebell swings or glute bridges is a good idea.



### **Key Area #3 - Deep Squat Strength**

The focus here is on integration.

If our individual joint mobility is cleared, we can put our efforts into training the pistol squat pattern itself along with some high-impact accessories.

Perform as many of these exercises as your skill and strength allow.

Day 1:

- A) [Bottom Half Squat](#) - 2 x 5-10 each
- B) [1.5 Split Squat](#) - 2 x 5 each

Pistol Practice (accumulate 10-20 reps per side):

[Concentric Pistol](#) / [Pistol To Box](#) / [Counterweight](#)

A) [Single Leg Deadlift](#) - 2 x 5 each

B) [Deep Step Up](#) - 2 x 5 each

Day 2:

A) [I Squat](#) - 2 x 5

B) [Split Squat](#) - 2 x 10 each

Pistol Practice (accumulate 10-20 reps per side):

[Eccentric Pistol](#) / [Pistol From Box](#) / [Counterweight](#)

A) [Airborne Lunge](#) - 2 x 5

B) [Elevated Pistol](#) - 2 x 3

Alternate these routines for 4-6 total sessions per week.



## Create Your Pistol Squat Program

You now have at your disposal a compact and robust set of routines laser-focused on the pistol squat.

Consider them “practice sessions,” not workouts. The goal is not to get tired and sweaty. The goal is to identify areas for improvement and train them up.

Depending on where you are in the process, you might need to focus your practice on one, two, or all three key areas. Experiment and combine drills to find your solution.

Here are a few examples:

Let's say you're very close to getting a full pistol but your overall technique is inconsistent. Your training week might look like this:

Monday: Ankle Dorsiflexion + Deep Squat Strength

Tuesday: Hip Flexion + Deep Squat Strength

Thursday: Ankle Dorsiflexion + Deep Squat Strength

Friday: Hip Flexion + Deep Squat Strength

Or if your ankle mobility is the main issue:

Monday: Ankle

Tuesday: Ankle + Hip

Thursday: Ankle + Squat

Friday: Ankle

And if the issue is more hip strength/active mobility:

Monday: Hip + Squat

Tuesday: Hip

Thursday: Squat

Friday: Hip

Mobility and strength take time and high-frequency practice to attain. This is why we keep the routines short and sweet - you'll need to be able to do them a lot!

Plug these sessions in around your main training schedule. Of course, most of these can serve as your warm-up or movement prep for lower body training days.

Just be aware of the level of work and fatigue you might be subjecting your legs to. Stay fresh!



# The Ins ‘n Outs of the Pistol Squat

To get the most out of the pistol squat as a strength exercise, we'll have to draw upon the many subtle techniques of body "linkage." In this way, we can transform the pistol from a party trick to a true method of building and expressing strength.

[Root The Feet](#) ← Click for video

The squat begins and ends in the feet! Develop a sense of grounding and everything up the chain works better.

This doesn't happen by training on unstable surfaces, quite the opposite! The intention is to "become one" with the floor and all the stability it provides. We start with the static stomp deadlift.

[Grip \(Toes & Hands\), Lats, Abs](#) ← Click for video

The grip, lats, abs, and glutes are "anchor points" for strength. In other words, tighten them and you'll probably be able to express more of your potential.

While not every muscle group is directly involved in a given movement, the stiffness (stability) they provide for your entire structure helps the main movers do their job better.

[The Back Pressure Crunch](#) ← Click for video

Practice this exercise to effectively brace the core for pistol squats.

[Glutes](#) ← Click for video

Always pre-tense the glutes and quads during the set-up.

As you stretch into the squat, you'll naturally lose some of that feeling but this will ultimately aid both the eccentric and concentric motion.

## [The Active Negative / Direct the Energy](#) ← Click for video

The active negative means “pulling” yourself down into the squat with active hip flexion. Doing so sets you up for a stronger squat up and ensures you stay in control of the movement through the entire range of motion.

You'll notice that many of these techniques overlap and synergize with one another. This is the “body language of the strong.”

## **Bonus!**

### [Train Your Deadlift](#) ← Click for video

It may seem odd to include heavy deadlift strength in this list.

After all, what does a powerlift have to do with a single leg calisthenic move? Remember what Chubbs told Happy Gilmore - “It's all in the hips!”

Andrew Read makes the case in *Beast Tamer* that a strong deadlift powers heavy pistols and it makes good sense to me. These tension techniques are the same required to pull a deadlift max!

A solid 2x bodyweight deadlift means you've developed adequate “low gear strength” and know how to brace the core and grind the hips.



## Full Pistol Squat Programming

Once you have solidified your first few reps on each side, you have the luxury of deciding how the pistol squat will fit into your overall training program.

### Grease the Groove

The pistol can be done anywhere. Home, work, gym, airport, dancefloor...

Because you aren't limited by equipment or space, the pistol is a great fit for the GTG method.

Greasing the groove simply means performing some easy reps throughout the day. Practice, if you will.

Here are the “5 Fs” of GTG as presented in the book *The Naked Warrior* by Pavel:

- 1) **Focus** - Practice no more than 2 lifts at a time
- 2) **Flawless** - Perfect reps only (modify the variation if needed)
- 3) **Frequent** - The more you practice, the better you get
- 4) **Fresh** - Keep the reps low, minimize fatigue, and progress slowly
- 5) **Fluctuating** - Wave the volume, intensity, and movement variations

This method will keep your pistol skills sharp while minimizing the impact on the rest of your training.

Here’s how a week of GTG might look for a creative athlete who can max out at 7 bodyweight pistols:

Monday - 5 reps to a box (Morning) / 3 reps full ROM (Noon) / 5 reps to a box (Evening)

Tuesday - 1 rep on the even hour (8a, 10a, 12p, 2p, 4p) / 2 reps on the odd hour (9a, 11a, 1p, 3p)

Wednesday - 3 reps before every meal

Thursday - 2 reps with a 12kg kettlebell Morning, Noon, and Evening

Friday - 4 elevated reps every 2 hours

## **Traditional Strength Training**

When you can knock out 10 bodyweight or 5 weighted pistols, you can certainly plug them in as the main lift with your more traditional squat programming.

All the classic set/rep schemes can work:

5x5, 3x3, 5/3/1, 5x2, 10x1, etc.

I’d recommend adding weight and keeping the reps low. Yes, there are freaks out there with knees that can tolerate dozens and dozens of reps. I’m not one of them and you probably aren’t either.

Also be aware that pistols can be very neurologically taxing. Save your intense single leg work for after heavy back squats where applicable.

Here's a cool program example by Aleks Salkin that I've used to great success:

[The Anytime, Anywhere Bodyweight-Only Strength Program](#)

## Endurance Training

If your joints can handle it, push the reps.

The key here is not to toss all the high-tension techniques out the window, but rather learn how to “crank the dial” as needed.

For example, keep your tension effort around 30-40% for as many reps as possible. As you get tired or shaky, tighten up to 50-60% and so on.

Utilize ladder sets:

1 rep each, 2 reps each, 3 reps each, Rest.

That's one set. Build up to 3 sets before adding reps to the ladder!

Mix up the rep order too:

(2 reps each, 1 rep each, 3 reps each) etc.

## Hypertrophy Training

If you demand tree-trunk legs and back squats are completely off the table, take the same approach as above - dial down the tension for the sake of volume.

If hypertrophy is the primary goal, don't sacrifice reps just to stay loyal to the “classic” pistol technique. By all means, get volume in with elevated pistols, assisted and box variations, and other quad dominant moves like the [hack squat](#) and [sissy squat](#).

Tempo can have a big effect as well. Try 5-second eccentrics and paused reps at various joint angles.

## Beyond the Pistol

Build up to a strict set of 10 pistols on each leg and consider yourself among the strength elite.

Should you care to continue pushing your single leg skills to the next level, here are a few options:

### Add Weight

You can [load the pistol](#) with a weight plate, kettlebell (in the goblet hold, bottoms-up, or standard racked position), sandbag, or dumbbells.

Note that the farther you hold a weight out from your center of gravity, the more it acts as a counterbalance, effectively making the squat easier (from a mobility standpoint).

## Pistol Variations

[Dragon Pistol](#)

[Cossack Pistol](#)

[Pistol Moonwalks](#)

## Other Single Leg Moves

[Barrier Squat](#)

[Zercher Airborne Lunge](#)

[Cossack Squat](#)

[Single Leg Deadlift to Lunge Iso](#)

[Lego Squat](#)



# Closing

Congratulations!

Just by taking the time to consider some of these methods, you're already on your way to building a stronger body by way of the mighty pistol squat.

To deepen your strength practice, be sure to check out the [Bodyweight Built Training Course](#) or reach out about [Online Coaching](#) options.

Feel free to tag me on social media. I'd love to keep up with your progress!

Instagram - [@zackhenderson\\_](#)

Facebook - [Zack Henderson](#)

YouTube - [Zack Henderson](#)

Remember, training is a life-long practice and as you pursue new skills and goals, keep these words from Emerson close at heart - "Adopt the pace of nature: her secret is patience."

Have fun,

Zack

## **Disclaimer**

The information presented herein is in no way intended as medical advice or to serve as a substitute for medical counseling. The information should be used in conjunction with the guidance and care of your physician. Consult your physician before beginning this program as you would with any exercise program. If you choose not to obtain the consent of your physician throughout the duration of your time consulting with Zack Henderson you are agreeing to accept full responsibility for your actions. The author and publisher of this material are not responsible in any manner whatsoever for any injury that may occur through following the instructions contained in this material. The activities, physical and otherwise, described herein are for informational purposes only, and may be too strenuous or dangerous for some people. Always consult with a physician before engaging in an exercises regimen. The author and publisher of this material are not responsible in any manner whatsoever for any injury that may occur through following the instructions contained in this material. The activities, physical and otherwise, described herein for informational purposes only, may be too strenuous or dangerous for some people. Always consult a physician before engaging in an exercise regimen.

No part of this book may be reproduced in any form or by any means without the prior written consent of the Publisher, excepting brief quotes used in reviews.