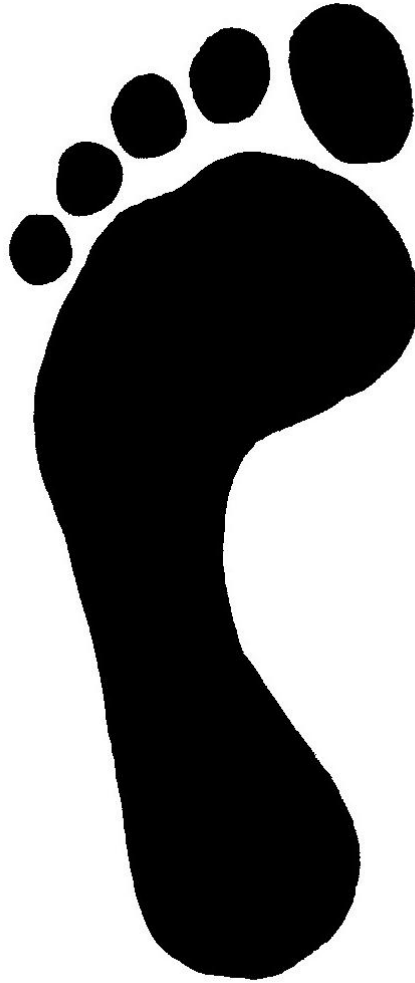


WORK ON YOUR GROUND GAME:



A BIG STEP TO GETTING STRONGER

By Josh Hewett

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What if I told you that there is one neglected body part that you could strengthen which would lead to an increase in full body strength and mobility? It might not be what you expect.

I'm talking about your **FEET**.

If you suffer from foot, ankle, knee, low back pain, or related problems including shin splints, bunions, heel spurs, plantar fasciitis, 'fallen' arches, or Achilles tendonitis, then this article should be of particular interest to you. Your feet may be holding you back from becoming stronger.

The feet are the body's base of support. During exercise, sport, and most daily activities, force enters the body through your hands and feet, with the feet supporting the bulk of this workload.

However, whereas most people understand the importance of grip training and how strong hands contribute to a strong upper body, our feet are often neglected. Most people just shove their feet into rigid dress shoes or 'bouncy' running shoes and forget about them.

To make matters worse, when our feet start to hurt we are typically advised to wear rigid orthotics or "ultra-supportive", inflexible shoes to help support our feet. Unfortunately, binding up your feet like this interferes with or even eliminates their ability to move. Less movement (or poor movement) leads to more weakness. Orthotics are like crutches... they may take the pressure off while you are using them, but they do not correct the underlying weakness.

If you had weak hands or sore wrists would you start wearing wrist wraps and rigid hand splints every day? I hope not. You would perform mobility and strengthening exercises to restore proper function to your hands. Well, your feet typically weight bear all day long, which makes it even more crucial to focus on strengthening their weaknesses rather than "bracing" them externally!

Your feet were **designed to move**, which is why they have so many joints! Each foot has 33 muscles, 26 bones, and hundreds of sensory receptors, but most of us just treat them like *pieces of meat* attached to the bottom of our legs? Stimulating and exercising your foot muscles will improve both your strength and balance.

Footwear

The fact is that most modern footwear may cause more problems than they correct.

Most major shoe companies include a rigid mid-foot and all types of cushioning systems in their running shoes (such as “Super Springs”, “Motion Control”, “Shox”, or “Air”) which are intended to reduce impact forces. However, the science behind most of these designs is questionable at best ^(1,7).

The truth is that proper running biomechanics rule out the need for a well cushioned heel in a shoe. First of all, if your heel is hitting the ground first, then you are not using correct running technique.

Secondly, during an effective push-off when your foot contacts the ground it will transfer the forces absorbed by the muscles back into the ground. In fact, your body gets a lot of *information* from these ground forces. Excessive cushioning reduces the amount of information (neural muscular signals) that your body receives through the feet, and you will lose a certain percentage of strength and flexibility as a result.

These shoes also create a problem when it comes to lifting weights. When you perform ground-based exercises such as deadlifts, squats, lunges, Olympic lifting or jumping exercises, you need to apply force into the ground through your feet to move the weight. What happens is this cushiony athletic footwear ends up “absorbing” the force rather than transferring it from your feet to ground. This makes your training very inefficient.

Your feet must be allowed to move and flex naturally to stay healthy and strong. They also need to “communicate” with the ground. What this comes down to is wearing as little shoe as possible. Training with less shoe will lead to greater foot movement resulting in stronger feet! Incidentally, wearing gloves can have a similar negative effect on your training by dampening the pressure signals your hands receive from the weights.

Most high level athletes understand this.

Elite level wrestlers, gymnasts, mixed martial artists, track athletes, competitive runners and strength athletes all work out with no shoes or flat shoes that have minimal support, as do a growing number of other athletes.

Regrettably many health and fitness professionals still argue against it, insisting that expensive “high-tech” shoes are better for your feet. Unfortunately, many people prefer to stick with the information that they have become comfortable with rather than introduce themselves to different perspectives.

Science tells us some of the many other benefits of training in bare feet:

- Plantar skin surfaces thicken with barefoot activity, which protects the foot and **reduces risk of injury**. For example, a lower risk of plantar fasciitis is associated with barefoot activity ^(2, 3).
- As previously explained, **plantar surface sensory feed back** is much higher in bare feet compared to when wearing shoes, which is very important for balance and efficient locomotion ⁽⁴⁾.
- Barefooted activity **reduces impact loading** by allowing for deflection of the longitudinal arch of the foot and promoting greater knee flexion during walking and running ^(3, 5, 8).
- Barefoot activity encourages **better alignment of the toes** with the metatarsal bones and more “grasping” of the surface with the toes ^(6, 2).
- Barefoot activity stimulates the intrinsic muscles of the foot, which can **increase the arch of the foot** in individuals with a reduced arch ⁽⁴⁾.
- A study by the American Academy of Physical Medicine and Rehabilitation found those running in trainers (shoes) have 36% more knee twisting and 54% more hip twisting than those who ran without shoes.

To summarize, these benefits include optimal development of the arches of your feet, better alignment of your toes, strengthening of the intrinsic muscles of your feet, better balance, less risk of injury, and more efficient locomotion.

If you are an athlete, the benefits of barefoot training are extremely important. Time off training due to foot, toe, and ankle problems could have been avoided if more time were dedicated to barefoot activity.

Should I Start Training Barefoot Immediately?

That most likely would NOT be a good idea. Due to restriction of movement, lack of exercise and minimal stimulation your feet have likely become very weak. Years of wearing tight, restrictive, binding, cushiony shoes will put your feet to “sleep” and lead to atrophy of your foot muscles. You need to gradually strengthen your feet and slowly introduce them to greater range of motion.

Walking barefoot on soft sand or grass is a great way to start... plus it feels good! If you have access to a beach or a well manicured lawn, slowly progress from walking barefoot for a few minutes at a time and working up to a longer duration, before introducing any more challenging barefoot activities.

For walking on solid surfaces such as concrete, I suggest you wear appropriate footwear that will provide minimal support while still allowing for greater natural movement of your feet. The following is a list of footwear I recommend. Again, the key is to wear as little shoe as possible:



NIKE FREE 5.0
GOOD



CONVERSE
CHUCK TAYLORS
VERY GOOD



VIBRAM FIVE FINGERS
KSO
AWESOME

www.vibramfivefingers.com



HUMAN BODY
BARE FEET
BEST

So literally, we want as little shoe as possible.

Starting off wearing the Vibram Five Fingers KSO may allow for *too much* foot mobility at first. It may be best to **gradually** progress from wearing **Nike Free** to **Chuck Taylor's** and then to **Vibrams** before attempting to train in bare feet.

As long as you treat your shoes as another piece of training equipment and educate yourself on footwear, then they can help improve your performance rather than hinder it. Above all, when it comes to your footwear, think function rather than fashion.

Can I Train My Feet?

OK, so orthotics, arch supports, and “cushiony” shoes are out. But my feet are still sore and weak! Is there anything else I can do about it?

Yes, you can actually train your feet just as you can any other muscle group. In fact, some of my clients have experienced fantastic results by training their feet, including a significant increase in overall strength and mobility! Some of the exercises I use to train my clients foot and lower leg muscles are listed below:

1. Footwear to Barefoot Progressions:

As I have already discussed, you can strengthen your feet by gradually introducing shoes that allow greater mobility and eventually progressing to walking and exercising barefoot on softer surfaces such sand or grass.

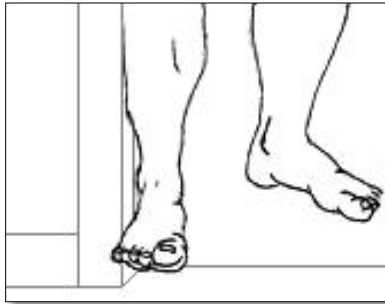
2. Warm Up and Mobility Exercises:

Just as you would warm up any other body part before training, the same applies for your feet. Start with active range of motion exercises such as foot and ankle rotation in both directions, inversion, eversion, flexion and extension. Also flex and extend your toes fully, holding each position for at least 5 seconds. Finish by walking for several steps on your heels and on your toes.

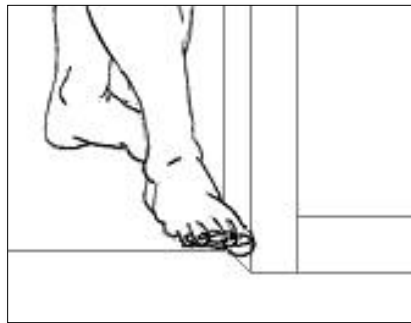


3. Eversion Isometrics:

- Sit down and place the outside of your foot against a table leg or closed door
- Push outward with your foot into the object your foot is against (your ankle should not move) causing a contraction of your muscles.
- Hold this muscle contraction for 10 seconds,
- Relax for 10 seconds
- Repeat 3 times

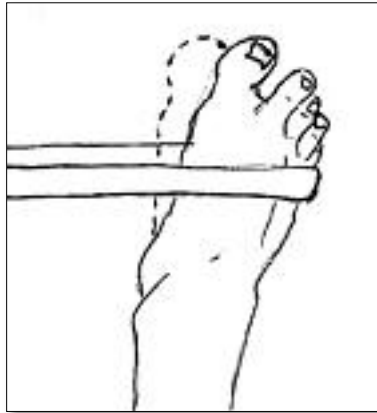
**4. Inversion Isometrics:**

- Sit down and place the inside of your foot against a table leg or closed door
- Pull inward with your foot into the object your foot is against (your ankle joint should not move) causing a contraction of your muscles.
- Hold this muscle contraction for 10 seconds
- Relax for 10 seconds
- Repeat 3 times

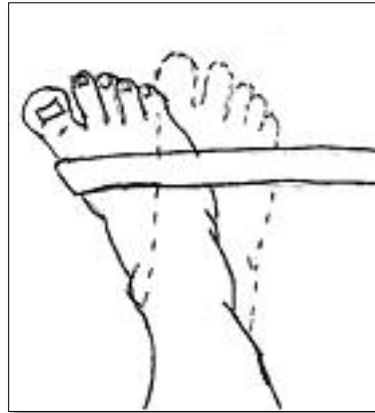


These isometric exercises can also be performed by combining eversion and inversion WITH flexion and extension (plantar-flexion and dorsi-flexion). Basically, you would press your foot down before performing the inversion / eversion exercises, and then repeat with your foot flexed up for both positions.

You can also use resistance bands to perform these exercises, as shown.



Eversion



Inversion

5. Toe Grippers:

This exercise is similar to training with a hand-gripper, except with your toes. An inexpensive and simple yet effective method of training your toes is to use **foam pedicure toe spacers**. You can purchase these foam toe separators in the pedicure section of most pharmacies. You place them underneath your toes with the foam “fingers” separating your toes, which is what they were designed for.



PEDICURE TOE SEPARATORS

Then you will perform the toe gripping exercise as follows:

- squeeze your toes down onto the foam pad and hold for 5 seconds
- extend your toes up and spread them apart for 5 seconds
- Repeat for 10 to 15 repetitions on each foot.

6. Calf Raises:



Most people are familiar with this exercise. At first, I would encourage you to perform this exercise without added weight and just focus on strict technique and a strong contraction to properly isolate the muscles involved.

Press yourself up onto your toes and focus on drawing your heels upward toward your calves. Hold this contraction for a couple of seconds, then lower and repeat. As you become stronger you can work on one leg at a time.

Perform 3 sets of 10 to 15 repetitions.

7. Reverse Calf Raises (Tibialis Toe Taps):



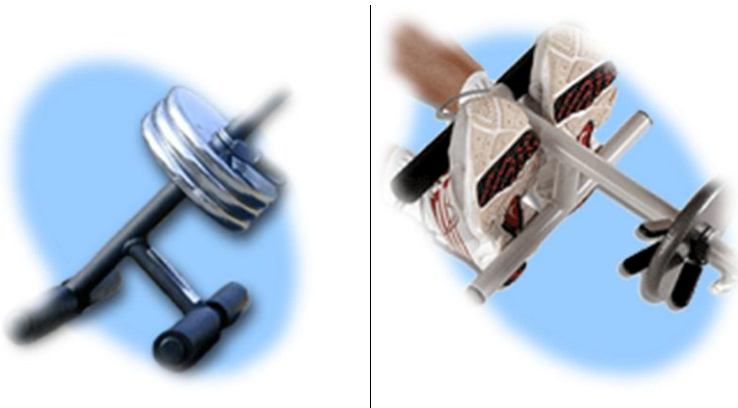
This exercise is less common but equally important. Begin by leaning back on an exercise ball against the wall, with your feet slightly in front of you. Keep your knees extended, and slowly raise feet up (dorsi-flex) while focusing on driving your heels down into the ground.

This movement is essentially the opposite of the calf raise. You should feel the muscles in your shins contracting (tibialis anterior).

Perform 3 sets of 10 to 15 repetitions.

You can also perform Reverse Calf Raises (Dorsi-flexion) using a device by SPRI called the D'ARD, which stands for Dynamic Axial Resistance Device. I own a D'ARD myself, and I find it to be a great training accessory for isolating the typically weaker muscles of dorsi-flexion.

THE SPRI DARD



<http://www.spri.com/Item.aspx?ItemID=1655>.

8. Acupressure Stimulation:

Stimulating the soles of your feet using an acupressure product such as the Mini-Acuball can help to restore circulation and wake up the muscles in your feet. I find this particularly useful in the mornings. Just remember to apply light pressure to the ball while rolling your foot over it... your goal is to stimulate NOT annihilate your feet! Deep tissue work is not what you need at this point.



THE ACUBALL

www.acuball.com

Your feet are integral to athletic performance, full body strength, mobility, and good health. Start taking better care of your feet by choosing the appropriate footwear and training them as you would any other lagging body part. By following the advice in this article you will develop stronger, healthier, more flexible feet and will most likely notice a significant improvement in every other ground based activity you perform.

Now that's taking a step in the right direction!

Josh Hewett

About The Author:

Josh Hewett, BA Kin, is a certified trainer, coach, competitive strength athlete, and author. He is the owner of www.Top-Form-Fitness.com and the founder of Team Barbarian Strength Athletics (OPA affiliated). His articles have been featured on several popular websites, including Elite FTS, The Diesel Crew, Straight To The Bar, QFAC, and many others. Josh has been working in the fitness and physical conditioning industry for over 20 years, and has helped hundreds of people reach their fitness and performance goals using his proven training system.

Take advantage of his free Fitness and Performance Newsletter by signing up at www.StrongerAndLeaner.com. All subscribers receive **three comprehensive Fat Loss and Muscle Building** bonuses.

NOTE:

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