Pain Free Knees In 4 Weeks

By Sam Guest - https://ReIgniteMy.Life

First things first, your knee is not the problem.

The knee itself is a very simple joint and unless you've suffered major trauma, the knee itself is NOT the cause of the pain, it's a symptom.

There are two much more complex joints directly above and below the knee. The hip and the ankle. It is much more likely the problem is actually coming from them (both of them working together as we will soon see).

In the case of the hip joint, it's also the biggest, strongest joint of the body and has a massive effect on posture. So when it has a problem the whole body has a problem.

It's also very likely that this pain can be totally fixed, easily.

Today we're going to start to fix your knee pain. If you follow through with what I'm going to tell you below I would expect you to start noticing improvements within a few days.

(Videos of all the exercises are at the end of the document)

THE OVERVIEW

The process starts with the big toe.

Now before you start rolling your eyeballs, consider this.

Even the most sedentary of us walk a few thousand steps a day. Each step you take you load your foot with the entire weight of your body.

Imagine doing a few thousand bicep curls every day for your entire life with a dumbbell equivalent to your bodyweight.

Now imagine doing that bicep curl with slightly bad form.

Over time the resulting imbalance in the muscles and joints would obviously lead to problems in the elbow, shoulder, forearm and probably the neck and chest.

Now in the case of doing bicep curls that dysfunction would probably be confined (mainly) to the arm you were dong the curl with. However…

The foot is the foundation of the whole body. When you walk if the foot is unbalanced, every step you take forces the rest of the body above it to compensate for this imbalance. So your hips will have to move slightly, meaning your core changes angle slightly, meaning your shoulders drop and your head tilts to a slightly different angle.

All to keep you balanced, upright and prevent you from falling over.

This is why what I'm about to talk about will also be the first step in fixing your shoulder pain, your back pain, your neck pain (but that's for a different book!).

It all starts in the feet. And the most abused, forgotten and functional part of the entire foot is the big toe.

To get started take off your socks and look at your feet as they are firmly planted on the floor. Your toes should look like this:

Notice the position of the big toe and the gaps in between the toes. If yours look like this, good, that will make things a lot easier.

Now look at your shoes and imagine your feet inside of them.

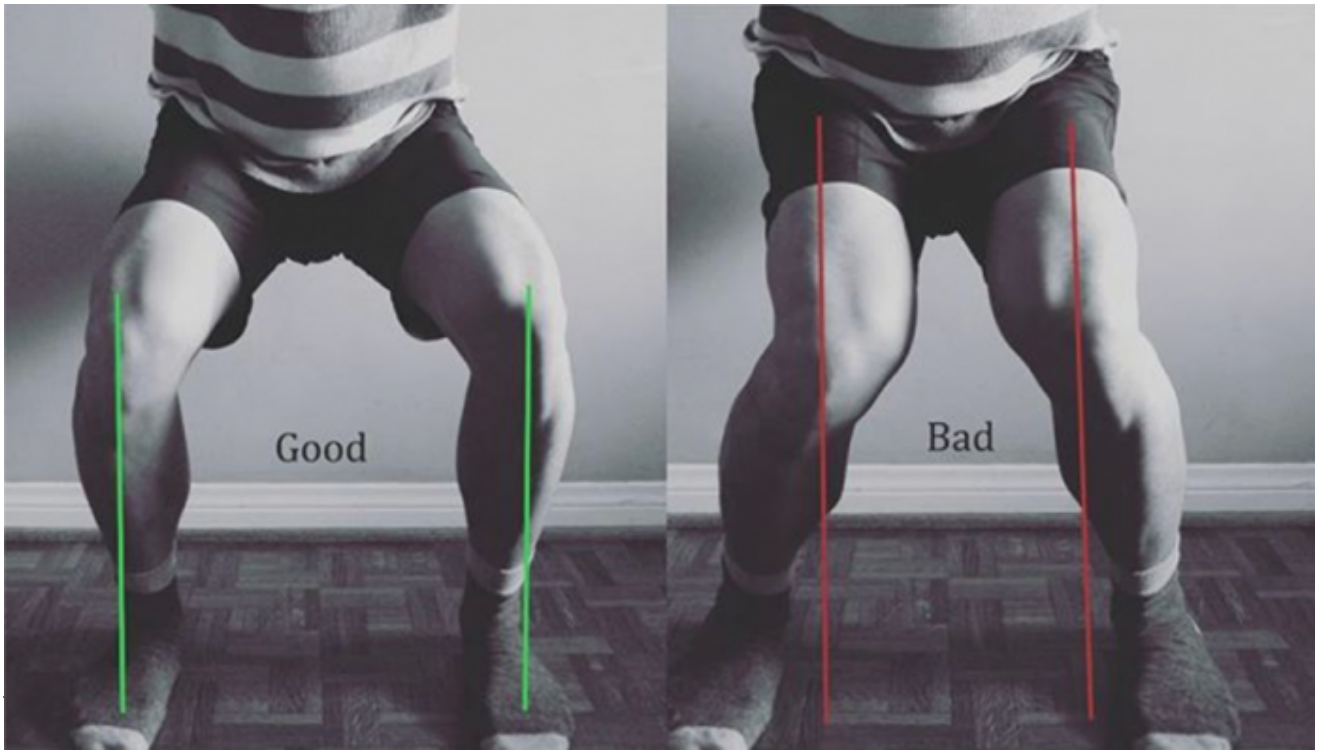
Notice how (unless you are wearing barefoot shoes) your big toe will be forced to point further towards your little toe as a result. Inside your trainers your feet look something like the picture below.

Over time as they are repeatedly forced into this position they begin to look like this all the time. Notice the beginning of a bunion, this is the inevitable result of the toes being deformed like this.

The big toe is not where the brain expects it to be.

With the big toe being “pushed in” like this as you walk it cannot prevent the foot from collapsing in towards the midline of the body.

The natural result of this is that the entire lower part of the leg (from the knee down) slightly collapses towards the mid line.



Leading to knee cave. Meaning your knee quite literally caves inwards as you walk.

This is imperceptible at first, but this is also…

A very bad thing.

The knee which is a hinge joint is now forced to hinge at the wrong angle and must make a shearing motion as it does so. This puts huge pressure on the surrounding tendons and on the knee capsule itself.

Your brain, in its infinite wisdom, realises it needs to fix this if it is to avoid long term damage to the knee.

It's solution is pretty genius.

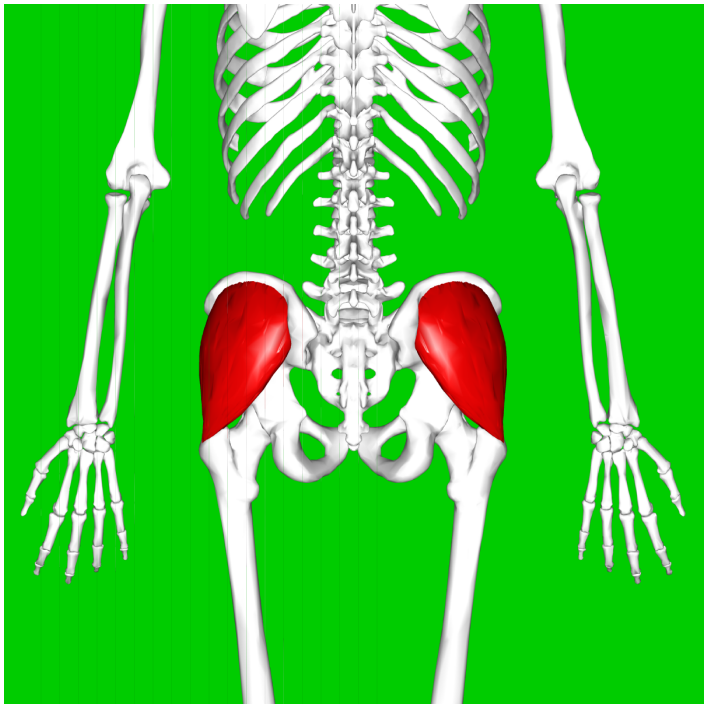
By shifting weight onto the outside of the foot it manages to straighten the knee joint up.

You can see this in action.

Stand up and simulate a knee cave (without moving your feet collapse your knee inwards towards the middle of your body). Now roll your foot to the outside and watch your knee straighten up.

This shift to the outside of the foot has another unintended consequence however.

It moves weight off the big toe.



Now the big toe is getting a free ride. It weakens considerably as it's no longer being used. At the same time the little toes become stronger.

This is a problem because the big toe connects through a chain of muscles to the Glute Medius, the muscle at the side of your bum.

The job of the Glute Medius is to pull the femur deep into the socket of the hip and so maintain joint stability.

With the big toe playing an increasingly passive role in day to day walking, this

connection between big toe and glute medius, is also downgraded. Resulting in the glute medius slowly de-activating and becoming weaker.

Extended periods of sitting will make this process happen faster.

This leads to the hip joint de-stabilising and the femur “falling” out of the the socket whenever placed under strain (as in when walking).

As the glute medius weakens a chain reaction is set in place. Now everytime the leg is placed under load (ie every time you take a step) the femur “falls out” of the socket meaning the top of the femur moves further away from the midline of the body.

Physics states that as a result the lower end of the femur (the end which attaches to the knee) must move closer to the mid line of the body to compensate.

Causing more knee cave.

To straighten the knee up again the body shifts weight further onto the outside of the foot.

Thus begins a negative feedback loop which if left untreated will lead to knee surgery.

Due the the position of the hip the foot has to shift weight further and further onto the outside which disengages the big toe more and more, which in turn de-activates and weakens the glute medius even more, which leads to more knee cave and forces the weight in the foot further out.

Your sequence of walking now looks something like this:

Your foot strikes the ground on the outside of the foot. At this point the knee is straight due to the placement of the foot. However now the femur falls out of the hip socket causing the knee to cave inwards. The foot shifts further outwards to straighten the knee up.

This all happens in the instant your foot hits the ground and you won’t be aware of it happening as to you it’ll just feel normal.

But it means the knee is wobbling from side to side as you walk as it attempts to do the hips job for it.

Over time if not treated this person will need a knee replacement.

The good news: This is really easy to fix and you can get started today.

TESTING

The first thing we are going to do is diagnose which particular area is worst for you so we can determine the correct treatment.

1. Stand on your tiptoes without thinking too hard about what you are doing. Observe where the weight goes in your toes.

2. Walk up and down. Notice where the weight is distributed in your foot as you do so. This may one really difficult to actually work out as your brain is so used to its particular way of walking it may struggle to actually transmit the information to you.

3. Perform a single leg squat. Refer to the video Single Leg Squats for how to do this.

When you stood on your tip toes did the weight shift over to your little toes? If so your big toe is weak and needs strengthening.

When you walked did your wight shift to the outside or inside of the foot? If so you need to practice walking with a correctly positioned foot.

Could you perform a single leg squat to a depth of 45cm without knee cave, if not your glute medius needs strengthening.

While this is interesting to know it doesn't really change our sequence of treatment. I have yet to meet a single person who failed just one of these tests and normally all these areas need work if you to are fully correct the problem.

Follow through the sequence below only moving on when you have reached the given tolerance level for each exercise.

PHASE 1: STRENGTHENING THE BIG TOE

The first exercise you need to practice is calf raises. Remember how we said the big toe is connected to the glute medius? One of the muscles in that chain is the gastrocnemius muscle which forms part of the calf.

As this chain between big toe and glute turns off the gastrocnemius develops a weakness at a very specific point; where the muscle of the calf meets the tendon, right at the bottom of the chunky bit of the calf.

This needs strengthening if you are to realign the foot. The same exercise which does this, if done correctly, will also target the big toe.

What's the exercise?

Calf raises, but not just any old calf raises…

Performing A Calf Raise Correctly

Find a step, the steps in your house will do just great. Take your shoes off. (If you can't go barefoot for whatever reason try to wear shoes with as thin a sole and as wide a front as possible, barefoot shoes are fine to wear)

Stand with the meaty bit of your feet on the edge of the step with the foot running perpendicular to the front of the step. Hold on to the bannister or another support (this is not a balance exercise and you will need support).

Now with straight legs remove one foot.

Keeping the leg straight drop the heel of the foot holding you up down off the step, ideally you should see the toes raise off the ground.

Driving through the big toe push up until you are on tip toes on that foot.

As you push up your weight should drive down through the pad of the foot just behind the big and index toe.

The metatarsal bone (the ridge like protrusion which forms the highest point of the foot) should be pointing straight down the gap in between these 2 toes throughout the entire movement and the heel should track in a straight line up and down, without "screwing" to the inside.

Imagine you are trying to squash a bug using the pad of your foot just behind the big and index toes. You should almost be able to lift the little toe off the ground as there is no weight on it.

If you're dong these right you may only be able to perform a few of these with good form to start with, that's fine. It's a few more than you did yesterday and a great start.

What You Should Feel

You should feel this right at that point where the head of the calf meets the tendon right in the centre of the calf. This will probably be harder than you expect it to be, perhaps a lot harder, that is a sign you're getting it right. If it feels easy you're probably doing something wrong (and nearly everyone does the first few times they try this) so refer to the next section.

How To Spot Incorrect Form When Performing A Calf Raise

You will, especially in the early stages, naturally favour the outside of the foot and your little toes as you push up in the calf raise. This will become more pronounced the higher towards your tip toes you go.

How do you spot this? There are several clues I want you to look for to check if you're doing it wrong:

- The little toes will be firmly pushed into the floor and the big toe will often actually raise off the floor. Drive the big toe in to the step as if you were crushing a bug under it.
- The metatarsal bone will start to point outwards to the outside of the foot as the calf raises upwards. This may be a subtle shift and will become more obvious the higher up in the movement you go. Again the cure here is to imagine you are crushing a bug under the big toe all the way through the movement.
- The heel will screw inwards towards the midline of the body to assist in shifting the weight to the outside of the foot. Keep the heel tracking in a straight line up and down through out the movement.
- If you're wearing shoes (which I don't recommend) the crease formed in the front of the shoe should run at 90 degrees across the front of the shoe. If it slightly angled it means the weight is shifting out to the big toe.

Struggling To Get The Full Height?

The calf naturally loses strength the higher in the calf raise you go. For this reason you often see this weight shift outwards towards the top of the exercise. If you cannot prevent this from happening then only raise up as far as you can with good form. You can build up to getting the calf raises higher as your strength improves.

Why Form Is So Important

It is vital that you perform the calf raises with good form.

The main reason you're having problems is that your little toes are significantly stronger than your big toe. If you perform these exercises wrong and allow your weight to shift out to the little toes you are building even more strength in them…making things worse.

It is infinitely better to do less repetitions but perform those you do with perfect form rather than try to do lots of reps and perform most of them wrong.

How Many To Do?

The eventual goal is to perform 3 sets of 12 reps, 3 times a day. Once you can do this you have reached tolerance level for this exercise and are ready to move on to the next phase.

Build up to this.

To stat with you may only be able to perform 1 rep with good form whilst really helping yourself by leaning on something …this is fine! Take it slow and get it right.

Practice this every day.

Calves take a lot of hammer in everyday life so you may notice them aching a lot the next day. If this is the case and it's unbearable, take a day off and let them recover.

Common Issues

Pain In The Achilles

If you notice pain in the achilles it's often a result of dropping the heel at the start of the calf raise.

The action of dropping the heel down off the back of the step to ensure a full range of motion often pulls and aggravates the achilles.

To cure this perform the calf raise from a flat surface (like the floor) so the achilles does not have to stretch so much. Slowly build up to working off a raised step as the achilles becomes less sensitive.

Bending The Knee

The muscle we are trying to target is the Gastrocnemius. This muscle only does its job when the knee is straight. Keep a straight leg throughout the calf raise.

LEARNING TO WALK AGAIN

Now, rather patronisingly, I'm going to teach you to walk properly.

To do this you must imagine you have a tripod in your foot.

What do I mean?

At the moment you are most likely walking with a bipod.

For most of you that will be a bipod with one prong in the heel and the other in the pad behind your little toes. For a few of you this second prong will be on the other side of the foot, over behind the big toe.

The cure is the same:

You need to develop a tripod.

I want you to imagine you now have one prong in the heel, one in the pad of the foot just behind the big toe and index toe and one in line with this but towards the outside of the foot, just behind the 2 little toes.

All 3 prongs must engage equally when you are walking.

For those of you who walk on the outside of your foot this may feel like you are collapsing the arch, and will certainly feel very strange to start with.

The way to ensure you're not collapsing the arch (which we certainly don't want either) is to look at your inside ankle bone. This should remain rigid when you walk and not collapse inwards when the foot contacts the floor.

Many people, when I tell them to do this, start walking really oddly. That's fine it'll become more normal as you get used to it.

Your general gait remains the same, ie. you heel strike, roll through the foot and push off with the toes. I simply want you to move where the weight is as you roll through the foot.

The final part of the walking action (ie. the bit where you raise the heel and drive off through the toes) should mirror exactly the calf raise we have just practiced. You should feel the big toe driving off the floor with the crease in your trainer (or foot) running perpendicular across the front of the foot.

The calf raises and new walking pattern work hand in hand to help each other…

You have 2 problems to fix.

One is simple muscular strength.

Your gastrocnemius and big toe are weak and need strengthening. This is what the calf raises are doing.

The other is your nervous system and brain.

You have developed an adapted movement pattern which needs correcting. This adopted pattern is the one we described earlier where the brain favours the outside of the foot and the little toes whilst walking.

Depending on how long you've been walking like this and how much walking you've done this may take a while to correct.

You need to wipe the old moment pattern (walking with a bipod) from the brain and nervous system and imprint a new one (walking with a tripod) over the top of it.

To start with this must be done consciously. Which is a pain in the ass quite frankly.

You will find yourself quite naturally going back to the old bipod style pattern of movement whenever you're not paying attention.

The problem is that each time you do you are reinforcing that old movement pattern at the expense of the new one. So try to be cognisant whenever you walk of how you are walking and use your tripod.

Yes, of course, you will forget, but a good tip is to set yourself challenges where you go for walks (often alone so you don't get distracted) and the only aim for the walk is to focus on walking on your tripod.

Once you get this dialled you will have set up a positive feedback cycle where the calf raises are strengthening the gastrocnemius and big toe, which is straightening your feet up, which (combined with your new movement pattern) is meaning you walk better, which in turn strengthens the gastrocnemius and big toe.

As a word to the wise: this may take a while and can be quite frustrating…stick with it, it's worth it!

ADDITIONAL EXERCISES TO CONSIDER

If you can start to shift your big toe back into its natural position then you can prevent this happening again and make your recovery a lot faster.

Some of the best ways to do this are:

Go Barefoot As Much As Possible.
When you are around the house especially try walking around without shoes or socks on. We have already seen what shoes do to the toes but conventional socks have the same effect of pulling your toes together. I wear socks with the individual toes built in to them like a pair of gloves would for your hand, which allow the toes to spread out naturally but also keep my feet warm on cold wooden floors.

Wear Barefoot Shoes
Barefoot shoes are much wider at the front than traditional shoes, so they allow your toes to spread out. I love my Vivo Barefoot's and these days don't wear anything else.

If you're going to go down this route, start slowly. If you go for a walk in your barefoot shoes take your normal shoes with you. If your feet or calves start hurting swap shoes. Try to build up slowly increasing the time you wear your bare foot shoes each time.

Spacers
Silicon devices which slot in-between the toes originally designed so that ladies can dry their toenails. These things work great for spreading the toes out over time. Wear them as much as you can.

Toe Exercises
We should be able to move our toes like we move our fingers. For most of us the toes move as one solid block. Practice moving one toe at a time. (when I started doing this I was physically holding toes in place whilst moving the other toes around it).

Practice picking objects off the floor by curling the toes.

This will all strengthen the functionality and strength of the toes.

A Word to the Wise
This takes time. You will not see massive changes in toe position for months, if not years. If you follow these practices however it will happen and it'll improve everything above it as a result.

PHASE 2: RELEASING THE TIBIA

When you walk the femur is designed to pull into the hip socket and rotate outwards away from the midline of the body. Meaning as your knee bends under load your knee should swivel slightly to point outwards.

This will be more or less pronounced based on the exact function and structure of your hips.

As it does this the Tibia, one of the bones below the knee, rotates the opposite way.

When the knee caves the opposite movement happens. The femur rotates inwards and the tibia rotates outwards.

Over time this can lead to the Tibia becoming blocked.

Once the tibia becomes blocked whenever you try to force the knee out it will be really hard to keep your foot fully planted on the ground. The tibia will not rotate, meaning the foot is forced up on to the side (towards the little toe) to allow the knee to follow its desired and natural form of movement.

You can understand what I'm taking about by performing a Glute Bridge sometimes called a Hip Thrust.

Lay on your back and pull your heels towards your bum. Now keeping your feet flat on the floor drive your knees out as far as you can.

Do not allow the feet to move towards the outside.

Now keeping the knees as far out as you possibly can and resting your weigh ton your shoulder blades, drive the hips upwards as far as you can.

You will most likely feel the feet trying to push out towards the outside to help the knees maintain this position.

So let's do a quick test to see if your Tibia needs releasing.

Sit on a chair with your feet planted on the floor about shoulder width apart. But a yoga brick or similar object in between your knees and grip it with the inside of your knees so it won't fall out.

One at a time twist each foot as far towards the midline of your body as you can. I often imagine I'm trying to kiss the other foot with the inside of the big toe.

Once the foot has twisted as far as it can go, leave it in place.

Now do the same with the other foot.

Are they both resting at the same angle?

If they are not, the side which has less rotation is blocked and needs releasing.

If they are and they both twisted about 20 - 45 degrees you are probably fine. Everyone will have a different amount of rotation here dependant on their physiology.

If they both rotate equally but rotate less than 20 degree's they may both be blocked. Perform the unblocking exercise below and retest…if your range of movement has improved keep unblocking them until they stabilise.

To unblock the Tibia refer to the videos in the appendix. Perform the exercise and then retest the mobility. Once both have equal equal range of motion you are ready to try loading them.

When you first get started with this it's worth testing this range of motion every day. You may be lucky and the blockage may have gone for good on just one attempt. You may find it comes back for the first few days. Test and unblock each day. After a few days it should get the memo and remain unblocked.

Once you have equal range of motion you can start loading the Tibialis.

The tibias is the forgotten muscle at the front of the shin. It's often a weak link and once brought up to strength can improve agility, jump height and ankle strength immensely.

You have to be aware that at this stage, loading the Tibialis may cause it to have a slight panic attack and lock the Tibia up again. It's not a problem as you can simply repeat the unblocking exercises from above. But do check after each round of sets to see where your range of motion is, unblocking if necessary.

Machines to train the Tibialis are few and far between so we're going to do it with a resistance band instead.

Check out the video on Loading the Tibialis to see how to do it.

Even if the Tibia keeps getting blocked after a few days unblocking and loading it it should unblock for good.

I would recommend at this stage adding some sort of Tibialis training into your routine for life simply because it often gets ignored in gym workouts. While no ones going to be complementing you on your beautifully sculpted shins it's a really useful muscle for just getting around efficiently in daily life.

PHASE 3: STRENGTHENING THE GLUTES

Now this phase is a little more complex.

Go back and perform the single leg squat again.

I want you to see how far down in the squat you can go before the knee starts to cave, (which means it moves towards the mid line of the body) this will often be quite a pronounced shift which happens quickly.

Depending on how far down you could get before the knee caved will determine which of the following exercises you need to start with. You don't need to be hugely accurate with this measurements just a rough guesstimate will suffice.

If the knee caved within the first 5cm -> Start with Single Leg RDL's

If the knee caved between 5 and 15 cm -> Start with Banded Lunges

If the knee caved after 15cm -> Start with Single Leg Squats.

Wherever you start, work through the exercises in order, so if you start with the RDL's perform them until you can control the knee cave to a depth of 5 cm, then move onto the Banded lunges and when you can squat to a depth of 15+cm move to the single leg squats.

If an exercise is too hard try the one before it. For example if your test determines you should be doing Banded Lunges but you find them too hard instead start with Single Leg RDL's.

Before You Start

Before you start actually doing any of these exercises you need to activate the glute muscles. This is because they have been dormant for so long that if you just start doing the exercise then they will most likely remain deactivated which means all the surrounding muscles have to do the work for them…

We do not want this, we want those glutes to have to work.

So to activate them we have several options. The one which you should use is the one which feels like it's working your glute medius muscle the most.

For some of you, when you do these exercises, you may not notice it in the glute medius at all, instead you may notice your quad, your hamstring for lower back jumping in to try to do the work.

Keep doing the movement, eventually you should feel the tension move until it finally lands in the glute medius. If no matter how much you try and do the exercise you can't get the glute medius to fire, try a different exercise.

The exercise you finally do should be the one which activates the glute medius the most. (ie. it's the most painful for the glute medius to do!)

The exercises I want you to try are:

Banded Hip Bridge
Banded Leg Raise
Banded Clam Shell

One of these should hit the glute medius. Again it may take several reps for the glute medius to actually activate. Once it's activated, then you start counting reps.

I want you to do 3 sets of 12 reps of this exercise as a warm up. Your glute medius should now be ready to exercise.

Once The Glute Medius Is Activated

Perform whichever exercise you are working on based upon the depth of your single leg squat (ie single leg RDL Banded lunge or single leg squat.

Perform 3 x 12 reps of your chosen exercise a day, ideally you will do this 3 times a day.

The final goal is to perform 3 x 12 single leg squats from a height of 45cm with no knee cave or even wobble.

PHASE 4: ISOMETRICS

This phase will not be necessary for everyone. For others it will be something you want to incorporate from day 1.

If you get an aching pain normal y towards the top but sometimes towards the bottom of the knee cap, this can often be tendonitis. The tendons attaching the muscle to the patella have become inflamed and are letting you know about it.

If you find this happens or you are suffering with it already the cure is simple.

Jump on the Leg Extension machine.

You're going to be lifting the weights to full extension and then holding them there in what we call an isometric hold. This just means your not going to be doing the normal up/down of the movement just holding the stack in the up position.

The hardest thing about this is working out which weight is right for you.

You want to choose a weight that you can hold with one leg for 45 seconds but couldn't hold for 55.

This will require a bit of trial and error the first time you do it.

Once you have the correct weight perform the concentric phase (ie the bit where you are lifting the weight up) with 2 legs using your hand on the lever (if the machine has one) to help you as well. We do this because the concentric phase of the motion will annoy the tendon even more causing it to become inflamed so we need to skip that stage entirely to start with.

When you reach full extension remove one leg, hold and start the clock.

If the tendonitis is present in both legs perform this across both legs, other wise you can just do it on the leg which hurts.

Perform this once or twice every day until the pain disappears. Then do it for a few more days just to make sure.

What To Expect

You should notice improvements in your knee pain within a few days of starting the calf raises. This will depend a little on where you start, if your calves are very weak and you can only do 1 or 2 calf raises with good form it take longer to feel the effects.

Certainly things should not get worse, if they do, stop, leave it a few days re-watch the videos to check your form is correct and then start again taking it slower.

You may notice (especially late in the evening) weird deep pains which feel like muscle ache in and around your spine and legs. This is normal, your posture is subtlety adjusting and new muscles are having to do jobs they have long ago given up on.

You may also notice sharp, stabbing pains which dissipate quickly. This again is fine.

What isn't fine is constant, what I would call "bad pain". Bad pain is pain which isn't just the stress of exercise. That sort of pain that your brain instantly tells you something is wrong.

If this happens stop and move back 1 step taking a bit longer to build up the muscle there before you move on.

Will Doing These Exercises Fix Your Knee Forever?

If you do them forever, yes.

If you want to build knees which are strong for life without having to do these exercises for the rest of that life then you might want to consider my paid online coaching program:

And here my dastardly plan in writing this guide is revealed.

In this initial guide I want to give you as much value as I can. Make no mistake these exercises will cure your knee pain. But I know some people will require a more personal touch to really fix them for life.

For that I need to get a little more in depth with you and understand your personal circumstances a little better so I can tailor the approach specifically for you.

In my online coaching program I do just that. I offer a free initial session so I can get to understand your challenge in more detail and so you can decide if you want to work with me.

You can book your first free session here >>

GETTING EXTRA HELP

Finally there are extra resources I've created to help you with this:

You can join 3500+ others who receive my newsletter each week where I talk about all things health and living a life you love.

Videos

All the videos for the exercises I mention can be found here >>

Here's to a pain free life!

Sam.