

## The GHD!

### GH, what?

The GHD's (glute/ham developer) are those big bulky "machines", if you could even call them that, in the corner of our gym. So why are they there and what do we use them for? This month we will talk a bit about what you can use the GHD for and why you want to be spending some time on that piece of equipment and getting to know it. We will focus on 4 main movements that you can use the GHD for. We will go over them in order of progression, or easiest to most difficult. This is also the order in which you should build capacity within each movement before moving onto the next and we will touch on that a bit later. The 4 movements are the hip extension, back extension, hip/back extension, and finally the GHD sit-up. Although there are other exercises you can do on this them we will leave it with some basics. But remember, basic doesn't necessarily mean easy.

There are a number of reasons that we use the GHD. The athletic or fitness community as a whole is fixated on the front half of the body. After all, it's what you look at in the mirror. And guys, don't deny it, I know you wipe off the steam from your mirror and throw down a pose every once in a while hoping that your wives won't catch you. But chest, abs, and quads,

although an important part of our bodies is not where our power comes from. The bulk of power that you produce comes from the posterior chain which is made up of your erectors (low back), glutes, and hamstrings. This is what you want to get flippin strong and you do it with most of the movements we use in CrossFit. The GHD will provide you with some solid accessory work to help build "trunk" strength. No, I won't use the word "core" because it's too much of a buzzword now.

The GHD also plays an important role on building kinesthetic awareness. All this really means is helping to develop an awareness of where your body is in space. The GHD is particularly effective it helping athletes understand what it means to maintain mid-line stability, which is what we as CrossFitters are all about and define as "core strength". The 4 exercises mentioned above allow us to work both dynamically and statically in the hips and trunk. When your pelvis (hips) and spine are welded together that's midline stability. So aside from them strengthening of your trunk it will also help you to build that awareness of what kind of body position you want to maintain in the bulk of our movements regarding your midline.

### Hip Extension

The hip extension is the most basic of all these movements and helps with the understanding of maintaining your lumbar curve. This movement has you working dynamically in the hip, and statically in the trunk. Dynamically means that it's "moving" and static would be "holding". You will work your erectors and trunk but in a static manner which allows you to keep midline stability... your hips and spine welded together. Your hamstrings and glutes do a good bit of work with moving you through the range of motion but the erectors and abdominal wall are creating a belt around your midsection to keep your lumbar curve while performing the movement.

When you set up the GHD for the hip extension your hips should be in front of the pad. This feels a bit funny at first and your quads can take the brunt of your weight on the pad, but it's important to have the GHD set up this way so that you can flex at the hip and not have the pad prevent you from doing this. Flexing at the hip you will go all the way down till you are at about a 90 degree angle at your hip and then back up while maintaining your midline. You should be able to do approximately 25-30 of these before moving onto the back extension.

## Back Extension

The back extension now involves working dynamically in the trunk and statically in the hip. So it's opposite of the hip extension. Most people confuse the back extension with the hip extension in the "globo gym" and miss the big point here. The erectors are doing the work in this movement and it's quite a bit more challenging than the hip extension. This is one of the ONLY exercises that we will actually tell you to yield your lumbar curve and to round it. The reason is that we are just moving our body weight and these are designed to be slow and controlled only. There is not fast movement, unlike the hip extension where once you get some exposure to them you can crank them out. No matter how exposed you are to the back extension they will never be completed quickly.



When setting up the GHD you are now going to have your hips trapped on the pad. This means they will most likely be resting right on top of the pad and you won't be able to break very far at all from your waist. Start curling down by tucking your chin to your chest and think of curling one vertebrae at a time until your spine is round. At the bottom you will come up in reverse. Think of moving from your tailbone one vertebrae at a time up to your head slow and controlled. The hip is static in this movement and forces the erectors to go to work in order to pull yourself back up, as well as go down in a controlled manner. These can make the low back a bit tight and you will feel the burn so ease into them and with time you will build some capacity in the back extension as well. Just like the hip extension we want to have 25-30 back extensions before moving onto the hip/back extension.

## Hip/Back Extension:

The hip/back extension is deceptively difficult if done correctly. Now we are going to start working dynamically

in both the hip and the trunk. So the hammies, glutes, and erectors will all be at work here. You will also find quite the abdominal contraction when returning back up from the bottom of the movement. These are also done slow and controlled like the back extension. The hip/back extension takes a huge amount of kinesthetic awareness since there is a lot of movement going on in both the hips and trunk.

Set up the GHD so that your hip are in front of the pad just like your hip extension. From there you are going to maintain a static position in your hips. Curl your chin to your chest like you are doing a back extension and continue all the way down till your spine is round. Remember though, that your hips are still high... this takes some serious work. Once you have that round spine you are going to recover your lumbar curve by dropping your hips down and arching your back. This would now look like the bottom of your hip extension. Here comes the tough work now! To initiate the movement on the way back up you are going to pull your hips up ONLY. This means that your spine will round as you work in the hip. This is going to create that nasty abdominal contraction mentioned earlier. Once you get your hips parallel to the floor you are going to finish off the movement with the back extension moving up one vertebrae at a time from your tailbone to your head... now do it again for 25-30 reps and you can move on to the GHD sit-up.

## GHD Sit-Up

Ah, the mac-daddy of all abdominal work. To all the sit-up and crunch (neck flexion) kings out there, give this a shot and be humbled. There is a reason this movement is last in line. You need to have the capacity in the other 3 in order to make this happen without wrecking yourself. It involves a large amount of trunk strength as well as kinesthetic awareness. At first glance these actually don't seem to difficult when giving them a try. Do about 20 reps and the next 2 days you'll know why you should have stared out nice and easy. With the GHD sit-up we are using our rectus femoris (a large hip flexor with the quad) to pull ourselves up out of the sit up which creates an incredible contraction within your abdominal wall and erectors to maintain midline stability in the movement. You will be flipped over on the GHD and have your butt essentially off of the pad. If you are too close in you will have difficulty keeping your legs bent,

which we will talk about, and might find some pain in your lower back.

You will start out sitting tall with lumbar curve on the GHD and have your knees bent. Lean back controlled and force your knees to maintain that bent position. At the bottom (you will be close to upside down and have your hand able to reach the ground) get ready to extend your knees down fast and hard. This is what allows the quads to pull us up and we want to initiate the movement on the way back up with this. As you extend your knees hard you will sit up fast and stay tall in that sitting position at the top to maintain your lumbar curve.

If you do the GHD wrong you will not be extending your knees and will be using a smaller muscle called the psoas to pull yourself up. This is not something you want to be reefing on. It attaches from your lumbar and wraps down and around into your hips. Think of it this way. You can either use the bigger muscles, your quads to pull you up, or the small muscles attached to your spine to pull you up. I know what I want working, so extend those knees hard.

The work on the trunk is created when we extend our knees. You will come back up out of the sit up with quite a bit of speed and force and your erectors and abdominal wall contract and cinch down hard in order to keep your spine from flailing around in the wind while you are coming up. Start out easy with a spotter to see how comfortable with the range of motion and make sure to go easy at first. A set of 10 should be fine and if you feel okay in the next 2 days or so you know you can go a bit more next time. Much better to ease into these than not and find yourself in bed for a day because you are so sore. An exercise not to me messed with but once you build up some strength here they are a great movement to help build the additional trunk strength that will help us in all other athletic movement.

So don't be afraid to jump on the GHD and get your hip extensions going while building into the other movements. Take time to use these before or after your workout for additional gains in your CrossFitting!



Here are some good visuals for you to better understand the movements we do on the GHD.



All three movements start here... hip, back, hip/back extension. The torso is locked in with lumbar curve. You can tell she is doing a hip extension though with her hips just out in front of the pad.



Fuzzy pic but you get a good idea of what a loss of lumbar curve looks like at the bottom of a back extension here.



The hip/back extension from bottom to top. Again, a slow controlled movement but now we are working dynamically in the trunk and hip.

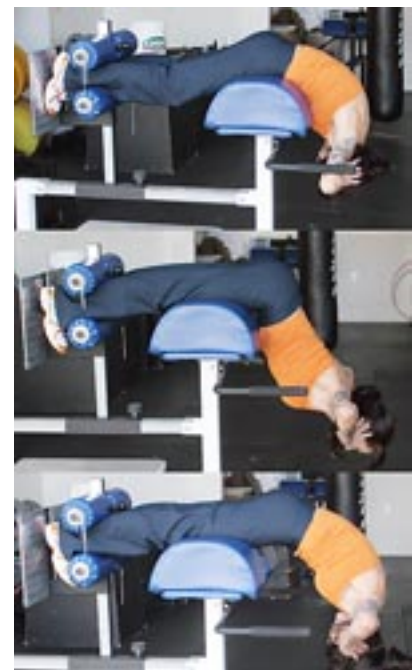


The GHD sit up at the bottom. Notice how the knees are now extended since he is initiating the movement from there. Although his chin is tucked his pelvis and spine are still welded together here.

Back Extension

Hip Extension

Hip/Back Extension



## CrossFitter of the Month: Lavinia Grippentrog

1. What do you do for a living?  
Special Education teacher in the Murray School District
2. What are some of your interests? Skiing (tele and skate), mountain and road biking, trail running, and most recently short track speed skating. I also like to knit when I can find the time.
3. What is your favorite kind of workout?  
I like wod's with lots of variety like the filthy fifty or tabata workouts. Least favorite are knees to elbows or anything with too many pull-ups in it... ouch!
4. If you could have any kind of superhero power what would it be?  
Immunity to getting sore or feeling like I was going to puke after a workout!



### Who is this squatting machine anyway?

I spent the 1985-86 season as a young ski bum at Alta and learned to tele on 205cm skinny skis and leather boots, after finishing college at UMASS I just couldn't stay away from the Utah mountains and moved to PC in 1991.

After spending a few years as a ski instructor at DV and as a Park City Bus Driver I went back to school for my Masters and have been teaching Special Education for 14 years now. I have taught students of all ages but I currently work with adult students in the Murray School District.

Just so you can get a little more info out of Lavinia I'll elaborate on who we know her as in the gym. She is the queen of squats and has some of the best form and technique in our "box". If you ever need to figure out how you should be doing an exercise you can usually take a look over at Lavinia and get some awesome visuals there. She is a hard worker and finds time every morning to make it into the class while being a busy working mom like some of the rest of you out there. Your commitment is commendable Lavinia and it's a pleasure having you in the gym as an athlete and motivator for others. The white board is consistently checked by the other ladies for your name to see how they stack up!



Lavinia shows us how it's done with the turkish get up!

# 3...2...1...GO!!!

## *EVENTS:*

- Regionals are April 18th and 19th if anyone wants to come down and compete or support us!
- Get your t-shirt and sweatshirt orders in this week. We are hoping to order them this week.
- Stay updated on the blog for changes in the schedule. The middle and end of April are going to be a bit crazy for all of us with Regionals and I have to make another long trip for a cert. We will get creative with the schedule for you so not to worry!
- Keep your eye out for some other things we will be offering. A bootcamp, online programming, and the Immersion Project are all still in the works!

