

### INTRODUCTION

Low back pain is one of the most prevalent issues in the U.S today with 80% of people having had a back injury and 90% of those have a re-injury. The exercises here will not only help prevent low back pain, it will be a guide for exercises if you currently have back pain. Everything is laid out and once you become a PRO at this routine, it will take about 15 minutes to complete. Who doesn't have 15 minutes to improve their quality of life to ensure that they can stay fit, healthy, and active?

We will go through 7 exercises addressing mobility and stability issues that are common with low back issues. Mobility MUST always come first. You can have the strongest back or core in the world but if you don't have the motion to get into the proper position, you will put stress on other structures, most commonly hips, knees, upper back and neck that then become secondary issues. For back pain you must look at your overall hip mobility, if you lack hip motion this will place increased stress on the back and generate pain due to poor movement patterns.

Avoiding movements because of back pain is a big mistake. Don't avoid. Modify to build the mobility and strength that you need to perform the activity. When you stop doing a movement, you lose strength and continue to show limitations in mobility. This turns into a vicious cycle, and you continue to lose movements and the ability to obtain proper positions.

There are many factors that can be used to modify any movement. Intensity is the largest part of the equation; how can we decrease overall intensity to modify a movement? The factors that we can modify are speed, range of motion, weight, distance, and total time. If you are performing a deadlift, you increase weight and keep the same reps, you increased the intensity of the exercise. On the other end, if you keep your weight the same, but increase total reps, again you increase intensity. If we keep the weight and the reps the same but perform the movement faster, we increase intensity again in a different way. Another variable is overall range of motion. If we pull the weight from a higher position, like off the blocks, we can decrease intensity.

This version has been expanded and revised from its original 2017 version. We have added 3 bonus exercises that will help to take your lifting to the next level, while moving at your best. The original content at its core has not changed, just expanded.

### ROLL OUT LOWER BACK

Rolling out the lower back is one of the easiest way to get relief. Often, the spinal muscles of the lower back will tighten up whether from direct pulling or from other areas like the small facet joints in the back. These are the most common limiting factors and pain generators.

Getting the muscles to relax is a big part in knocking down the pain and getting the muscle to provide increased support. Stiffness is usually related to joint tightness. Using the peanut on your back is my favorite way to loosen up the joints and get you moving again.

For this exercise, 1-2 minutes is ideal. I highly recommend not spending more than 5 minutes doing this exercise. When it comes to this exercise, too much of a good thing is a bad thing. Click picture below to view video of the exercise.



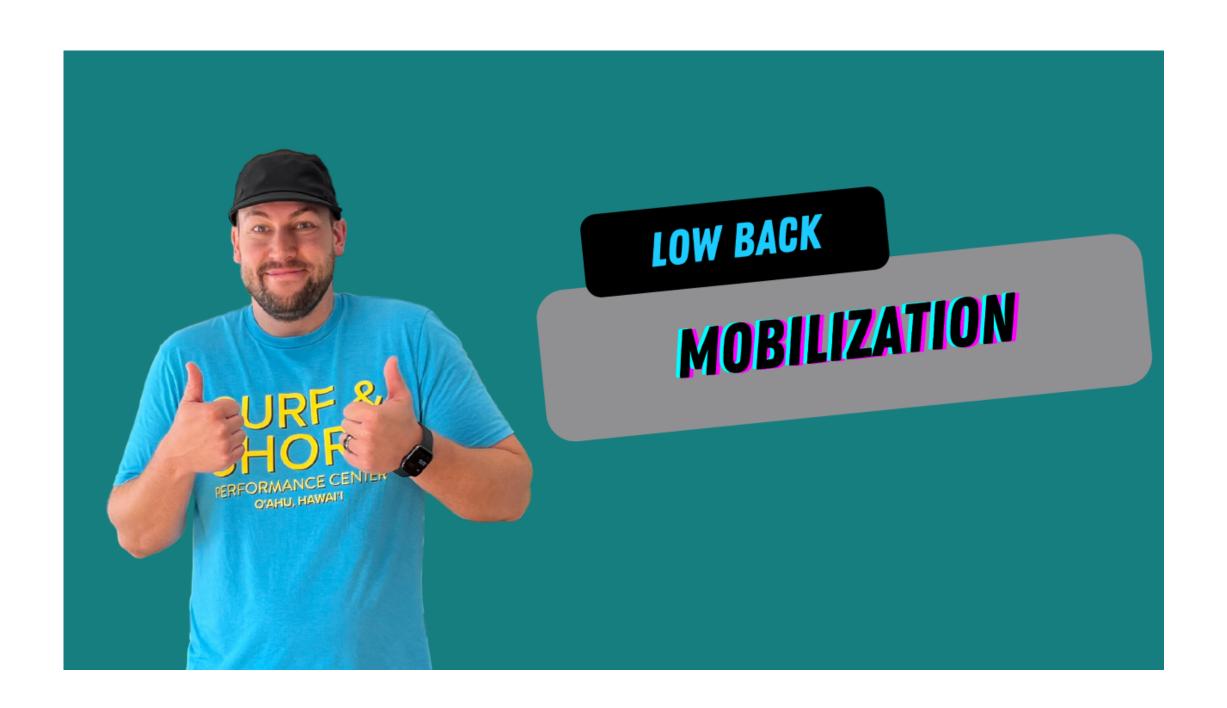


#### LOW BACK MOBILIZATION

Low back mobilization is all about getting the little joints in the back to open up and allow you to move again. The joints are mainly associated with stiffness. When getting up, if you're are bent over walking like you are 90, the joints are the cause. The peanut is the answer to get you moving again. Make sure to adjust the surface you are on to adjust how aggressive you are. Playing with foot positioning and elevation of the feet is another way to get more out of this exercise.

Although this one typically feels really good, as with most things too much of a good thing can be a bad thing. So when doing this limit yourself to no more than 5 min at first. This can however be done throughout the day, multiple small sessions are better than one long one.

For this exercise, 2-3 minutes is ideal. I highly recommend not spending more than 5 minutes doing this exercise. Click picture below to view video of the exercise.



### BAND HIP FLEXOR STRETCH

One of the most common sources of non-traumatic back pain is hip tightness mainly into extension (pressing hips forward at the top). If you lack hip extension you will need to make up for that lack of motion somewhere in the body's system and that stress usually goes to the low back. This can be commonly seen with Olympic lifts at triple extension, as well as at the top of deadlifts.

I like adding in the band to get the hip joint to loosen up, you can do this as a couch or runners stretch without the band. If the hip flexors are a source of tightness, a good hip flexor strength program should be implemented. I like the band to perform this exercise because it will loosen up whatever is tightest, either the hip joint or the hip flexors, giving you a 2 for 1 mobility exercise!

I recommend spending 1-2 minutes working on your hips, your back will thank you. Play around with the positioning of the band and hips. Everyone's hips are different and the goal is to find your tight spots. Click picture below to view video of the exercise.





### **BRIDGE PROGRESSIONS**

Our glutes are big, strong muscles, and provide a lot of core foundation stability and low back support. The major goal with this exercise is to get your glutes (butt muscles) active and turning down the activity in the hamstrings. The hamstrings do not provide this same support since their primary function is knee flexion.

The bridge is a great way to perform isolated hip extension that has great carry over into any hip extension movements (Olympic lifts, kipping movements, kettle bell swings, running, box jumps and many others). If these muscles have difficulty performing this exercise, then they will not function to their potential with more complex exercises.

Sets and reps of this should be done based on muscular fatigue in the glutes, or increased activity in the hamstrings. Typical breakdown is 2-3 sets of 8-12 reps. Click picture below to view video of the exercise.

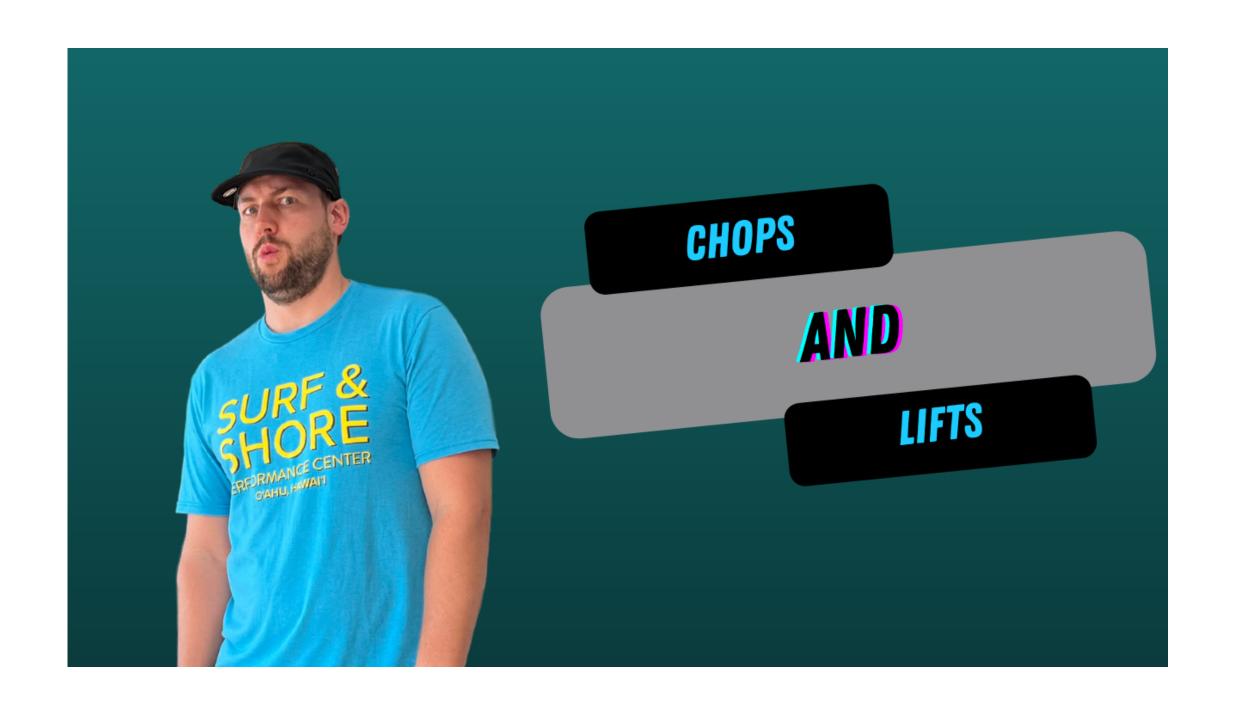


# CHOPS & LIFTS

These movements are based on a Proprioceptive Neuromuscular Facilitation (PNF) patterning. These patterns were noticed by neurologists to help improved core and trunk stability. Developing multiplanar stability and core strength can relieve a lot of back pain. Having increased stability in all planes will provide increased overall stability in the body with everyday activities and carryover into your exercises.

You can never have too much core. Perform both lifts and chops on both sides. We typically will have one side that is stronger than the other.

It is always a good idea to work on any major side to side differences in the body. If you notice this, do 2-3 sets on the weaker side and 1-2 sets on the stronger side. Increased stability and small muscle use means that the big muscles can work more efficiently and provide you with easy gains. Click picture below to view video of the exercise.



### LOW BACK EXTENSIONS

Working the low back muscles through extension (going backwards) can provide increased overall stability in the back, allowing other larger muscle groups to function better. With most full body functional exercises, we are trying to keep our "core" stable. Our core is not just our abs but all our trunk and hip musculature. If the back muscles are a weak link, then we will have increased stress placed on these muscles.

Make sure to vary intensity on this especially if the little back muscles are causing your pain. Light muscle activation and blood flow to the area is good, over stressing this can lead to more pain after you are done. Start off slow with less ROM and work your way up.

Sets and reps of this should be done based on muscular fatigue in the low back muscles or increased activity in the hamstrings. Typical breakdown is 2-3 sets of 8-12 reps. Click picture below to view video of the exercise.





### BANDED SIDE STEPS

This is my favorite lower body exercise because it can give you the biggest gains, especially with long term back issues. By increasing our hip stability, we can improve movement efficiency, taking stress off the lower back. This exercise also fires up your glutes.

If you can move more efficiently, we can distribute stress on the body is where it should be, and a positive side effect of increasing our weights lifted. To perform this exercise, all you need is a band.

Sets and reps of this should be done based on muscular fatigue in the hip muscles, or increased side to side upper body movement. Typical breakdown is 2-3 sets of 10-20 feet. Click picture below to view video of the exercise.





### CONCLUSION

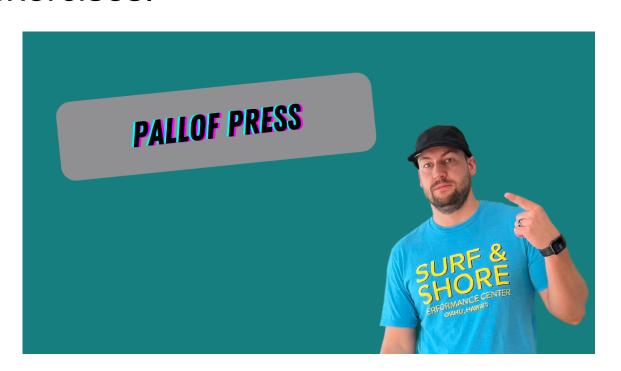
These 6 exercises added to your current routine will drastically help improved the overall health of your back and help prevent injuries before they start. This is done by optimizing movement and keeping your low back, hips and core in its strongest functional position.

Consistency and creating a routine is key to long term relief, changes don't happen overnight. All the tissues that are pissed off need to calm down and heal back up. The start should be slow and steady, as everything heals, your new routine should be done 2-3 times weekly or as a quick warmup before you lift. Modify always over just stopping.

There are always more exercises that you can do, but make sure that you are doing the exercises you need not just the ones you want. If you have pain down your leg all these exercises are still ok, just be aware of your leg symptoms and when they get aggravated. If it coincides with these exercises, then we need to adapt or modify the program.

Other daily tips and tricks that can have lasting effects.

- •POSTURE: Watch your posture throughout the day to decrease the amount of shoulder and upper back tightness.
- •YOU CAN NEVER HAVE TO MUCH CORE: These 3 core exercises cover all the stability for your back that you need. Click pictures below to view videos of the exercises.





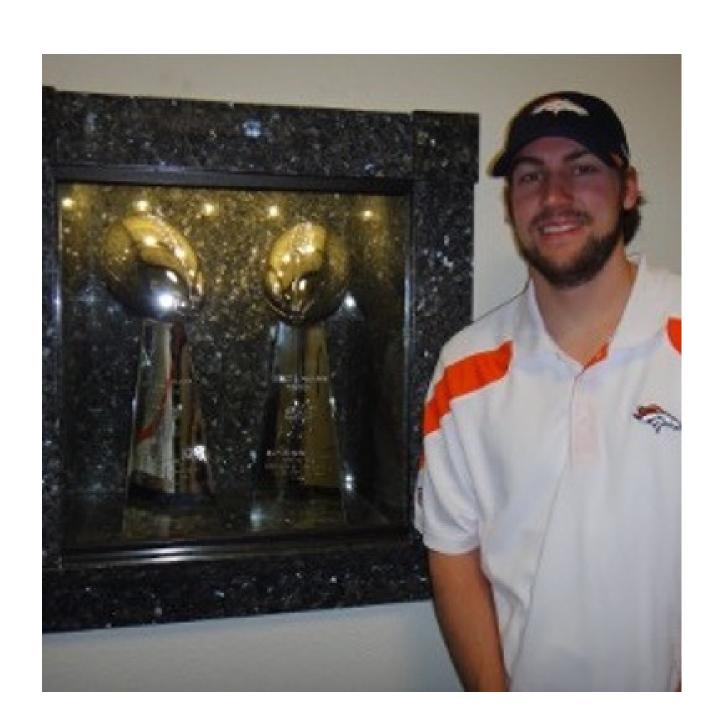


## **ABOUT THE AUTHOR**

Scott is a Physical Therapist, strength coach, and educator who specializes in the Surf, Golf, and CrossFit communities on O'ahu.

He has previous experience in the NFL as the sole Physical Therapist for the Denver Broncos and has worked with professional, collegiate, and high school athletes, as well as in the surfing community working with professional surfers sponsored by Hurley, Volcom, Vans, Billabong, and Rip Curl.

In his private practice as a Performance Physical Therapist, he works with a unique population of weekend warriors and professional athletes, getting them back to what they love doing most.





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