

# BACK PAIN

THE ULTIMATE GUIDE TO REDUCE BACK PAIN

## SYSTEMATIC PROGRESSION

4 phase process to reducing lower back pain.

## SAMPLE WORKOUT

includes a sample workout to put these 4 phases into action.

## BONUS 5TH PHASE

Bonus 5th phase to help integrate combo exercises.

# What a pain in the... back.

Lower back pain can be debilitating and extremely frustrating. I'm a stats guy and by just looking at some stats below you can see how much lower back pain effects people lives.

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Facts about lower back pay you may not know:

- Over 80% of people will suffer through lower back pain at some point in their lifetime.
- Americans spend over \$50 billion each year trying to treat or get rid of lower back pain.
- Lower back pain is the 2nd most common reason for seeing a doctor, the 5th most common reason for being hospitalized and the 3rd most common problem behind patients who require surgery.
- Lower back pain is the most common cause of disability claims in Americans younger than 45.
- Lower back pain is the most expensive condition in industrialized countries and accounts for over 19% of all workers' compensation claims in the United States.
- Every year, about 3 - 4% of the entire US population is temporarily disabled by lower back pain, and 1% of the working-age population is permanently disabled.
- #1 pain related reason for suicide

...But we got your BACK!

Literally, pun aside I created a progressive guide, I myself have used with countless amounts of clients who suffer from lower back pain. As every circumstance is different this guide is design to walk someone through a progressive sequence to help with common areas that cause or continue to plague lower back pain.

So on to it...

How to Help Lower Back Pain

First and foremost, lower back pain could be caused by any number of issues including, but not limited to

- Insufficient Hip and Thoracic mobility
- Weak posterior chain (think glutes and hamstrings)
- Weak Transverse Abdominis (core)
- Tight hip flexors
- Tight lower back
- Excessive anterior pelvic tilt (APT)

These can stem from being sedentary, poor posture, like sitting incorrectly at a desk or behind the steering wheel, repeating the same motion or overdoing it, and pushing, pulling, and lifting things carelessly.

While this certainly looks like a laundry list of issues, they're all interrelated with one another and are extraordinarily common.

I'd also note that there could be a variety of other issues at play here as well. For example, poor breathing patterns, lack of ankle mobility, insufficient knee stability...the possibilities are endless.

And, there are many structural injuries and issues that this guide may help but may also be contradicted.

The focus in this guide will be helping the bulleted listed issues, which I believe are the most common.

As Personal Trainers we don't "fix" pain, we focus on improving areas like strength, endurance,

mobility neural control, technique and confidence, which all can have a dramatic effect on helping pain.

\*As always talk with Medical Professional before starting an exercise program\*

Below is my systematic progression lower back pain guide:

## Lower Back Pain Help Phase #1: Increasing Mobility of the Adjacent Joints

Let's start off with an anatomy lesson.

Below your cervical spine (neck) you have your thoracic spine (upper back). Below that is your lumbar spine (lower back) and then comes your hips. Notice that the thoracic spine and hip is directly adjacent to the lumbar spine. The lumbar spine is primarily a stable joint that only has about 10- 15 degrees of range of motion, while the thoracic spine and hips are mobile joints and have a lot more mobility.

The lumbar is primarily designed to stabilize the trunk and when the adjacent joints are not able to reach full range of motion, the body will automatically seek the path of least resistance by moving in another direction or using an adjacent joint(s). For many with lower back pain, this results in the lumbar spine flexing and causing localized or radiating pain and/or neuropathy.

Has This Happened To You?

You bend over to pick up something light off the ground and you feel your back "go out"?

What happened was instead of your hips rotating, poor mobility borrowed movement from your lumbar spine. Due to the fact the lumbar is not designed to move that much, it creates a tremendous amount of stress on the lower back.

I see this a lot! The adjacent joints don't move properly and the lower back is used primarily. With this continuous stress it prematurely wears out your lower back. This same principle stands with our thoracic spine and often causes pain when reaching in front or overhead. The fix is the same and often quickly abolishes any radiating nerve pain.

### Phase #1 Exercises:

- Cat-Camels
- Lower Body 90/90 Rotation
- Band Distracted Hip Hinges
- Cobra Push-Ups

# Lower Back Pain Help Phase #2: Re-Educate the Core to Activate

First, let's start with what exactly is core re-education?

Simply put, due to inactivity (sitting for a high percentage of the work day), the muscles of core, especially the deep core stabilizers like Transverse Abdominis (TVA) and Multifidus muscles, the CNS (brain and spinal cord) doesn't communicate well with them. They are not activating properly, strongly and efficiently, because they don't have to often enough.

The more we use a muscle the better the brain is able to tell them to work and the better they listen and act upon that communication. This lack of communication can be called faulty neural control and there are multiple reasons for this happening. Due to this faulty neural control, the deep core is asleep, so to speak. Thus, we want to wake it up by re-teaching or re-educating the core muscle to activate strongly and efficiently during movement.

Why Does the Core Matter?

The core matters because it's the first muscles our brain tells to work during any movement.

Suppose you pick up a box, the brain tells the core to activate in order to protect the loading of the spine that carries the important spinal cord and ultimately protects the organs and stabilize the body for better and safer movement of the limbs (arm picking up the box this instance).

By doing exercises that activate the core and build its endurance strength you can create a stronger and faster responding core. We want the core to be alert and work just like a weight belt.

Ever seen guys wear a weight belt at the gym?

That's what the core is supposed to do, protect your lower back by adding stability.

Thus, why the core matters so much!

## Phase #2 Exercises:

- Quadruped Draw-Ins
- Bird-Dog
- Side Plank
- Curl-Up
- Farmer Carries

# Lower Back Pain help Phase #3: Wake up Sleeping Booty

The glute complex comprises the largest muscle group in the entire body and has major implications in strength, performance, posture and surprise, surprise lower back health.

Without going into the nitty-gritty, individuals with back pack pain tend to have trouble firing the glutes and compensate by overusing the spinal erectors (lower back muscles).

To prevent this compensation pattern from occurring it's necessary to "Re-educate" our glutes, just like we had to do with our core "how to fire effectively". This can be accomplished in a variety of ways so below I'll provide a few my favorite recommendations:

Basic glute activation exercises are the foundation of our gluteal education. We can perform the big, bang-for-your-buck exercises (re: Squats, Deadlifts, etc) until the cows come home, but without the necessary foundation it will all be for naught.

## Phase #3 Basic Glute Activation Drills:

- Glute Bridge
- Single-Leg Glute Bridge
- Figure 4 Single Leg Glute Bridge

These drills can be performed every day of the week, but most importantly should be included prior to training as part of a well-designed warm-up routine.

- Antero-Posteriorly Loaded Glute Exercises "Antero-posterior" is a fancy way of saying "front-to-back."

In other words, antero-posteriorly loaded exercises simply denote that the resistance is applied front-to-back (think Glute Bridges) opposed to axially loaded exercises (think Squats and Deadlifts) in which the force is applied top-to-bottom. Front-to-back loaded glute drills are extraordinarily useful in the process of fixing low-back pain as they limit forces placed on the spine, are relatively easy to perform, and are arguably the best exercises for improving overall glute strength.

## Phase #3 Antero-Posteriorly Loaded Glute Exercises:

- Weighted Glue Bridges
- Weighted Hip Thrust
- Cable Pull Through

As a general recommendation, these drills can be performed 2-3x/week. Use moderate to heavy loads and perform anywhere between 3-5 sets of 5-12 repetitions per exercise.

# Lower Back Pain help Phase #4: Maintain Proper Form and Technique

This goes without saying but you better be lifting with proper technique.

Too often lifters get overzealous and compromise form to put more weight on the bar.

This is unacceptable!

If you're serious about fixing your low back pain and becoming a responsible lifter then leave your ego at the door and start emphasizing technique over weight.

Once you have improved mobility and core and glute functions, its time to start with the foundational lifts. This is sometimes where people with lower back pain never get to. They stay working on the above list which is where to start (and continue daily), but increase functional strength sometimes is the missing piece needing to advance.

Setting the foundation of very good form will be extremely important. Once mastered form its really can be amazing the advancement suffers of lower back pain can make! I've had clients that never thought they could deadlift again, eventually through nailing form and carefully systematic progressing weight, hitting deadlifts in the 400lbs! Now safety always becomes before ego, but great form can really set you up for success.

Here is some foundational lift to add and progress slowly. Listen to your body and never push through pain or on-set of pain.

Below I've provided several common movements and proper form, that should be a staple within your training program:

## Phase #4 Staple Exercises for Your Training Program:

- Bar Deadlift
- Box Squat
- Chin-Up
- Push-Up
- Dumbbell Row

So once you made it through the phases, lets put it all together for a routine that you could do to help your lower back and keep it healthy.

# Sample Workout

## Mobility Prep:

- Supine pelvic tilts 2 x 10
- Cat-camels 2 x 10
- Band distracted hip hinges 1 x 15
- Lower body 90/90 rotation 2 x 10
- Cobra push-ups 2 x 10

## Core:

- Quadruped draw-ins 2 x 10
- Bird-dog 1 x 10
- Side plank 1 x 20-30 second per side
- Curl-up 2 x 15
- Farmer carries 2 x floor (20 steps)

## Glute Activation:

- Glute Bridge 1 x 15
- Single-Leg Glute Bridge 1 x 10 per side
- Weighted glute bridge 1 x 10

## Foundation Conditioning:

- Trap Bar Deadlift 4 x 8
- How to Do a Push-Up 4 x 10
- Box Squat 4 x 8
- Chin-Up 4 x 8
- Dumbbell Row 4 x 10

## Cool Down:

- Cat- Camel 1 x 10
- Childs pose 1 x 30 seconds
- Diaphragmatic breathing 1 x 30 seconds
- Foam rolling - 2- 5 minutes
- Stretching 3- 5 minutes

# **\*BONUS -Lower Back Pain help Phase #5: Integrated (together) Combo Exercises**

This is more of a progression than say a “fix”.

As human we rarely only use one segment of all body at a time. In life we integrate upper and lower body movement.

Take even walking. Obviously, we use our legs, but we also twist at the core and generate movement through our arms. You can of course go into more complex integrated movements like picking up a child and putting them in a car seat.

You have a lower body squat or lunge, upper body pull and arm flexion (to pick up child), a core rotation (twist) and forward flexion, lower body hip extension to lower and once a again a push and arm extension to place in car seat. This is all while loaded with a very live and possibly energetically moving weight (also known as a child)

You can see you have lots of upper and lower body movements and many are happening at the same time. So, if you plan on living and doing things, you better learn how to integrate upper and lower body movements and how to do them safely with a strong core and mobile body.

As stated above this is a progression. I would introduce these movements only after you have successively and properly progressed through all the above without pain.

## **Phase #5 Exercises:**

- Squat Single Dumbbell or Kettlebell Front Raise
- Reverse Lunge/Bicep Curls
- Bridge/Chest Press
- Forward Lunge and Lift
- Side Lunge/Pall-Off Press