



# ***2022 NSCA PERSONAL TRAINERS VIRTUAL CONFERENCE***

**October 25 - 28, 2022 | ONLINE | 2.0 CEUs**



# ***CONFLICT OF INTEREST STATEMENT***

I have no actual or potential conflict of interest in relation to this presentation.

# ***BEST PRACTICES FOR TRAINING CLIENTS WITH LOW BACK PAIN***

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# *Here's what we'll be covering for*

## BEST PRACTICES FOR TRAINING CLIENTS WITH LBP

- Load vs. Capacity
- Assessments
- 4 steps to alleviate back pain
- Case study
- Sample program
- Apply to future clients with back pain

***“BACK PAIN DOESN’T RUN IN  
YOUR FAMILY, YOUR HABITS &  
VALUES LEAD TO BACK PAIN DO.”***

***Billions of dollars go to healthcare for low back pain.***

***80% of people in the US suffer from LBP. That's nearly 65 million people.***

***20% with acute pain will lead to chronic back pain***

***This is a HUGE problem***

American Chiropractor Association, NIH.

***We as fitness professionals are the  
next line up for healthcare.***

***How can we collectively decrease  
low back pain?***

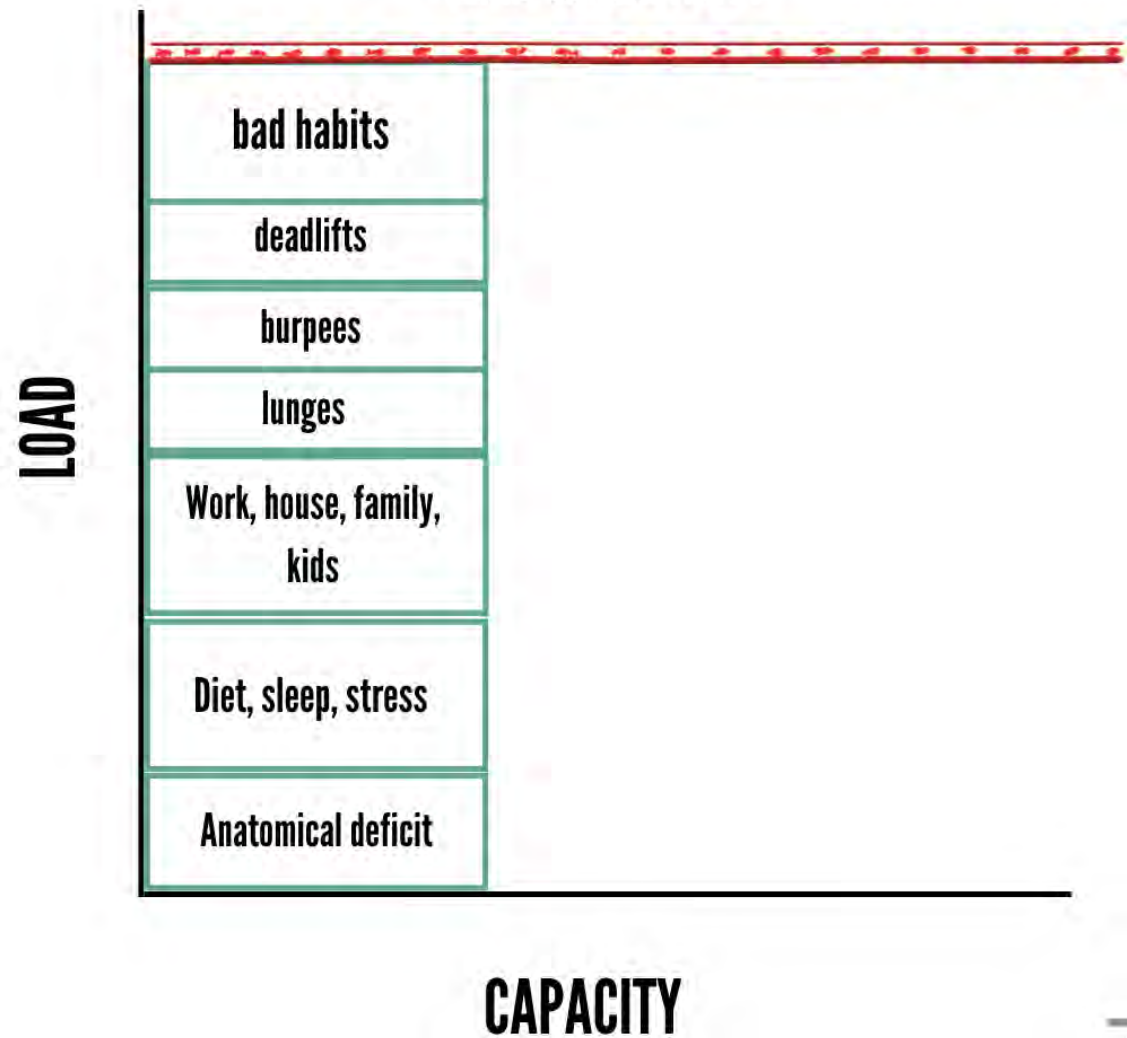
# ***What exactly is pain?***

- It's when we start to deal with discomfort
- Pain is the negative emotional response to irritation. Typically tied down to uncertainty and fear.
- When someone experiences a limitation in something they really want to do.
- With clients, I use the 1-10 pain scale (1 = minimal 10 = unbearable pain)

# ***Habits***

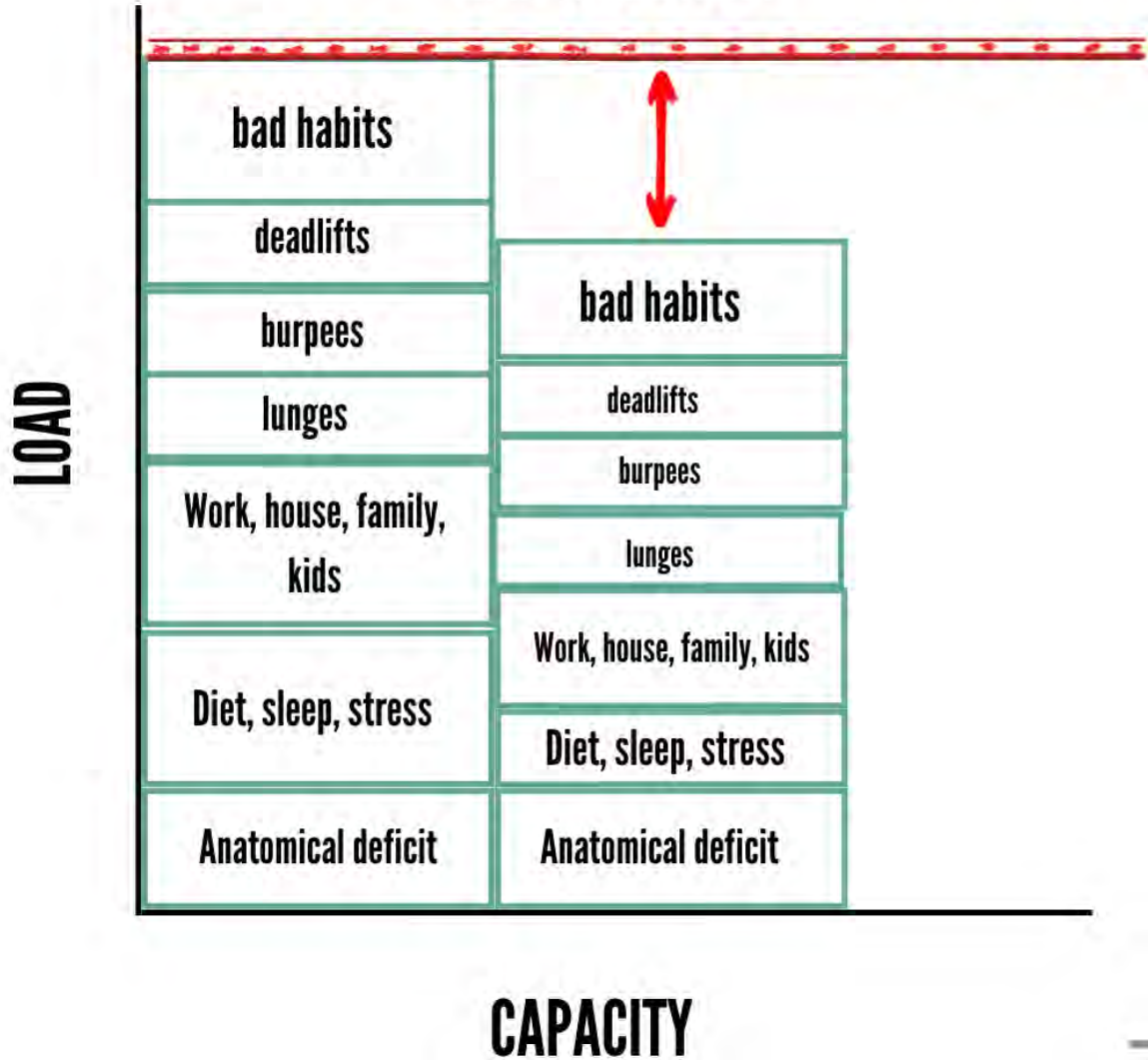
- Our bad habits can lead to our capacity
- Bad posture (slouching over, rounded shoulders, hiked shoulders, extreme arched back, back rounding)
- Truth is: you didn't pull your back from going down to pick up your dog. You pulled your back out because of all the bad habits accumulated and that's what triggered it.

## LOAD VS. CAPACITY



ACTIVE LIFE PROFESSIONAL

LOAD VS. CAPACITY



ACTIVE LIFE PROFESSIONAL



Tatiana Lampa  
Best Practices for Training Clients with Low Back Pain

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# ***INTERVIEW THE CLIENT***

## Client wants:

- Lose weight
  - Lose belly fat
  - Have abs
  - Look better
  - Get stronger
- 
- We cater to our client's goals but also recognize we need to help decrease risk of injuries and increase their longevity at the gym.
  - In terms of programming, we do NOT make it seem like it's another medical appointment. Make it fun but effective. Almost like they don't even know that their healing their back pain

# ***ASSESSMENT***

## Foundational Movement Pattern Development

1. Squat
2. Push
3. Pull
4. Hinge
5. Lunge
6. Carry

This really helps us understand how they move in and outside of the gym doing their daily activities.

From there we build the client's program

***Interview - Assess - Program***

# ***SQUAT ASSESSMENT***

1. Excessive forward lean
2. Low back arches
3. Low back round
4. Asymmetric weight shift

The neutral (lordotic) back lifting posture has been found to be better overall than a rounded back in minimizing L5/S1 compressive forces and ligament strain.

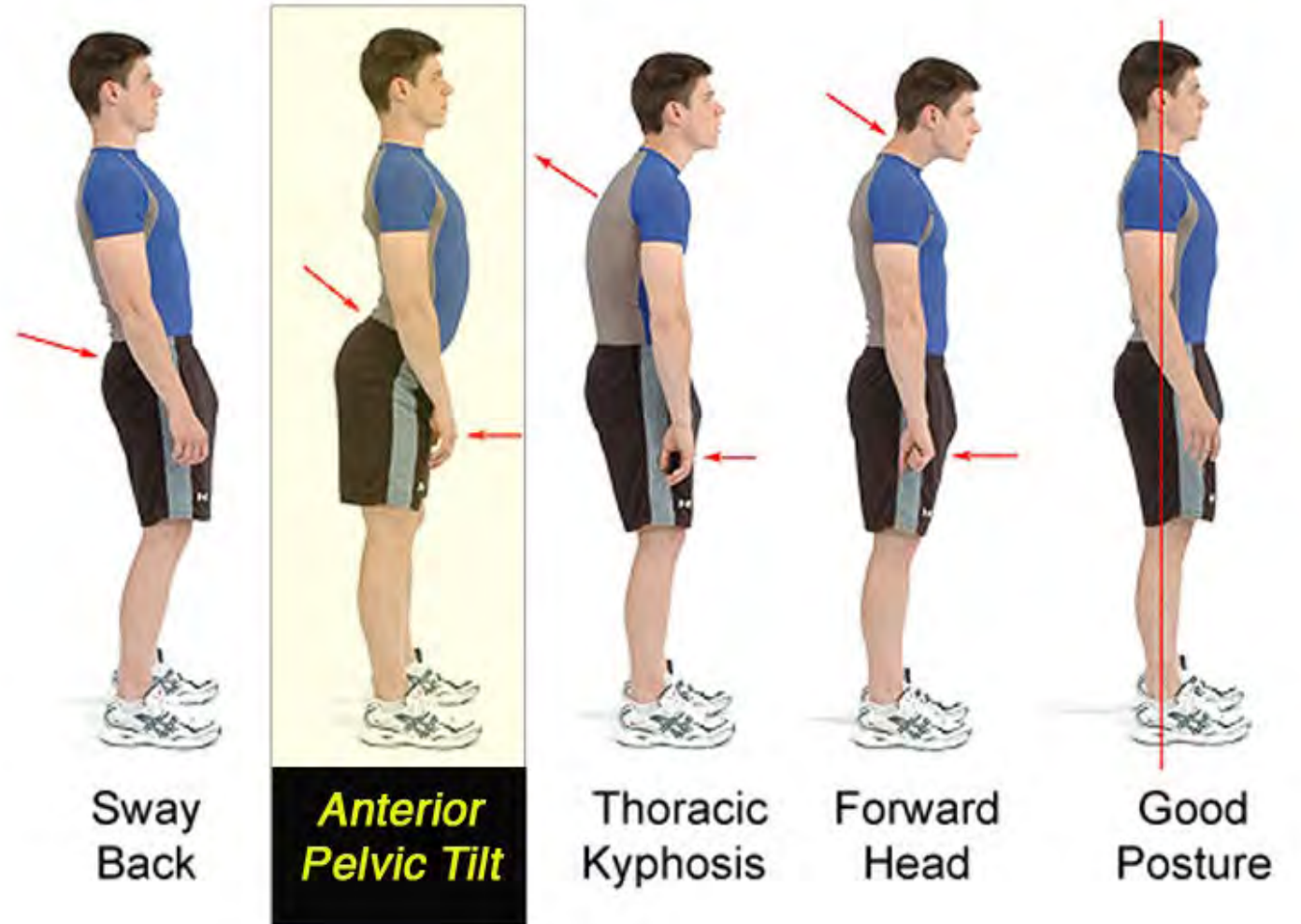
NSCA CSCS Textbook p. 38

***Interview - Assess - Program***

# ***BACK INJURY***

“When we are in a standing position, any force we exert with the upper body must be transmitted through the back to the legs then the ground. In addition, back muscles act at a great mechanical disadvantage and must generate forces much greater than the weight of an object lifted. It’s these reasons the back is more vulnerable to injury.”

NSCA CSCS Textbook p. 38



Mobile Physiotherapy Clinic

# ***ARE YOUR CLIENTS SEDENTARY MAJORITY OF THE DAY?***

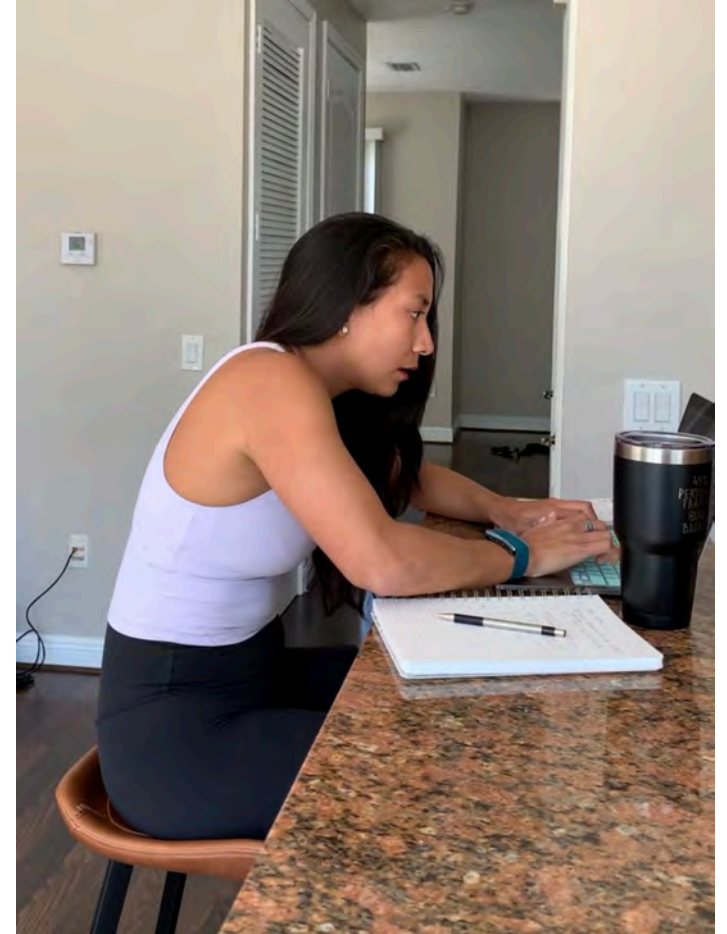
During your interview and assessment it is important to understand what they do outside of the gym.

Sitting down for extended period of time = weak glutes, weak core, overactive hip flexor complex

What can we prescribe to clients who have sedentary jobs?

**WALK!**

10,000 steps a day is recommended  
*NIH*



# CASE STUDY

**Subject:** female, mother of 1, architecture, experienced back pain during & after pregnancy and diagnosed with PCOS

**Goal:** lose weight for her wedding

(50% of pregnant females experience back pain according to U of Michigan)

## Strength Observations

- Weak gluteus maximus
- Weak hamstrings
- Weak abdominal complex



# ***4 STEPS TO ALLEVIATE LOW BACK PAIN***

1. Inhibit
2. Lengthen
3. Activate
4. Integrate

NASM Corrective Exercise Specialist

## ***Step 1: Inhibit***

Self myofascial release (SMR) = foam rolling, lacrosse ball, hypervolt

Muscles:

- Hip flexor complex
- Quadriceps
- Latissimus dorsi

## ***Step 2: Lengthen***

Static stretching (holding muscle up to 30 seconds) in an isometric contraction)

Muscles:

- Hip flexor complex
- Latissimus dorsi
- Erector spinae

## ***Step 3: Activate***

Isolated strengthening or Positional isometrics

Muscles:

- Gluteus maximus
- Hamstring
- Abdominal complex and intrinsic stabilizers

Example: bridges, heel taps, dead bugs

## ***Step 4: Integrate***

Integrate dynamic movement

Muscles:

- Compound (trying to recruit as many muscles)

Example: ball squat to press or thrusters

# ***Hands on portion***

## ***4 stretches to relieve back pain***

1. Cat-cow
2. Quadruped t-spine twist
3. Knee huggers
4. Standing side bend

# ***7 core exercises that are low back friendly***

1. Supine marches
2. Deadbug
3. Bird dog
4. Forearm plank
5. Pallof press
6. 1/2 kneeling wood chop
7. Farmers walk

## ***4 lower body exercises to decrease back pain***

1. Bridges (progress to single leg bridge)
2. Step ups (progress to higher step)
3. Good mornings (progress to deadlifts)
4. Split squats (add load or progress reverse lunge)

# ***How to Program***

- Interview then assess - really understand their goals.
  - If they don't have specific goals or goals in general. Give them goals to work towards
- Identify what muscles are underactive and overactive. Take notes.
- Choose exercises that allow the client to progress. (Do not instantly give them walking lunges if you see they're experiencing balance issues or finish with burpees if they have back pain)
- Determine the number of training sessions per week.
  - Full body or split?
  - Each pattern needs to be hit 2x a week minimum

# Sample program

## Warm up:

*Inhibit* - foam roll hip flexor complex, quads, latissimus dorsi

*Lengthen* - static stretch up to 30 seconds each for hip flexor complex, latissimus dorsi and erector spinae

## *Activate & Integrate (strength program)*

*2-3 rounds*

1. Deadbug x :45 seconds
2. Lateral band walks x :30
3. Banded pulls x 10

*3 rounds*

1. Split squat x 10 each side
2. TRX or ring row x 10
3. Standing landmine x 10

*3 rounds*

1. Bridges x 10 with 10 second hold at the top
2. 1/2 kneeling cable row x 10 each side
3. Push ups x 10
4. Farmers walk x 50 yards

## **Metabolic Finisher:**

Assault bike: 2 times  
4 rounds 10 seconds on/20  
seconds off

*optional*

## **Cool down:**

Foam roll

# ***Takeaways***

- We are fitness professionals that can help lead the decrease in back pain.
- Bad habits accumulated over time may have caused the injury not when you when down to tie your shoe.
- Walk and move often - motion is lotion.
- Tissue adaptation takes time. Change will not happen over night but every session will improve client's wellbeing.
- Understand your client's life and habits. Observe their movement patterns and progressions.