

Back Class

Fremont Physical Therapy

Back Facts

- 80% of us will have low back pain at some point in our lives
- 90% of these episodes will resolve in 4-6 weeks

How can Physical Therapy help?

- You can decrease your back pain through postural awareness, simple flexibility and strengthening exercises
- Physical therapy will teach you how to improve your motion, strength and posture
- This will also decrease the possibility of a flare up

Class Goals:

- Present an overview the anatomy of your back
- Present an overview the causes of your low back pain
- Discuss risk factors that contribute to your pain
- Discuss what you can do to change these risk factors
- Instruct you in exercises for recovery: strength and aerobic exercises
- Discuss how you will manage flare-ups

Anatomy of your back

Bones: The bones in the back, called vertebrae, are stacked on top of each other. There is a space in each vertebrae that allows the nerves that make up the spinal cord to pass through.

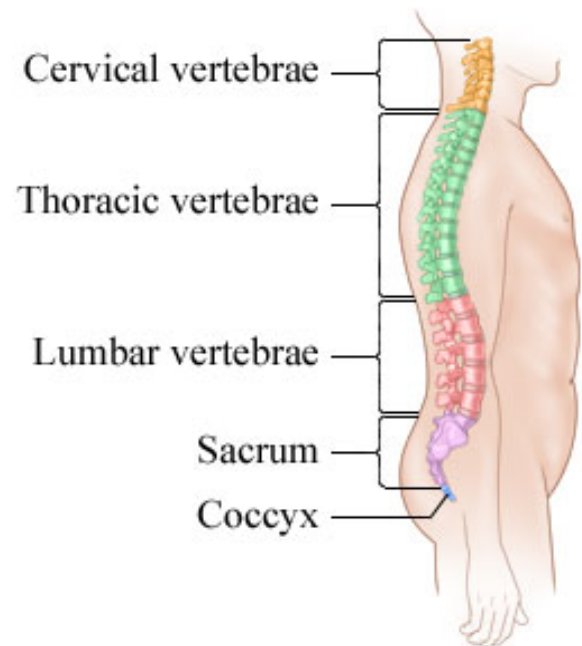
Joints: Joints are where the vertebrae meet. These joints allow the spine to bend and move.

Ligaments: Ligaments are strong bands that help hold the bones together.

Discs: Discs are between each vertebrae. Discs are designed to carry lots of pressure and act like shock absorbers.

Muscles: The muscles surrounding your back give it support and allow you to move. When muscles are pulled, it is called a strain.

Nerves: A bundle of nerves, commonly called the spinal cord, passes through the bones of your back. The nerves branch out from behind the discs and spread to other parts of your body. Nerves control the muscles and carry messages to and from your brain.



Consult with your physical therapist or doctor if you experience an increase in your symptoms with recommended exercises, or if you develop new symptoms of numbness, tingling, or a spread of the pain. This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. If you have questions or need more information about your medication, please speak to your pharmacist.

What causes low back pain

- Muscle strain
- Ligament sprain
- Degenerative joint disease
- Degenerative disc disease
- Herniated Disc
- Compression Fracture



Deep back muscles



Pain that travels down the leg is often referred to as:

- Sciatica
- Radiculopathy



What are the risk factors for low back pain?

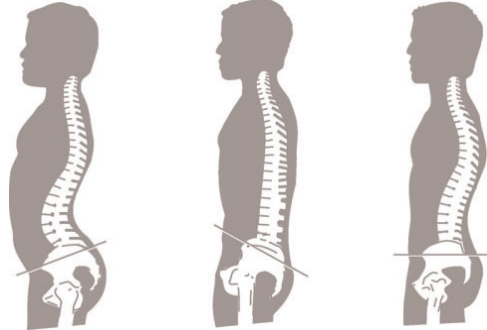
- Poor posture
- Prolonged sitting
- Poor work station ergonomics
- Repetitive or sustained movements in a bad position
- Poor general fitness
- Fatigue/poor sleeping habits
- Stress and tension
- Excessive weight
- Smoking

Back Class

Fremont Physical Therapy

Correct Posture

too arched too flattened natural curves (good posture)



- Correct posture is a balance state which requires minimal energy to maintain and in which the spine is under the least amount of stress.
- This is the most stable position for your daily and work activities.
- It is important to maintain your natural curves your natural curves (Neutral Spine Position) while sleeping, sitting, standing, bending and lifting.

Sitting Posture

Start by sitting all the way in the back of the chair.

Sit on your sit bones with your legs uncrossed and feet flat on the floor.

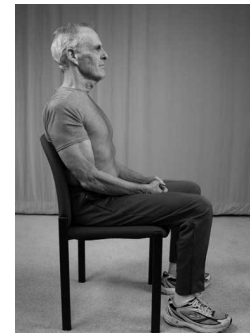
Sit with your hips at the same level or slightly higher than your knees

Sit tall; do not allow your shoulders to round.

You may use a lumbar support to maintain the natural curves of your back.



Poor sitting posture



Good sitting posture



Tips for lying down or sleeping on your side

Place one pillow between your knees

Place a small towel roll under your waist

Place 1-2 pillows under your head, make sure

Your neck is straight and not bent towards either shoulder.

Lying on your back

Place 2-3 pillows under your knees for comfort.

Avoid lying on your stomach.

Consult with your physical therapist or doctor if you experience an increase in your symptoms with recommended exercises, or if you develop new symptoms of numbness, tingling, or a spread of the pain. This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. If you have questions or need more information about your medication, please speak to your pharmacist.

Tips for managing flare-ups

- **Place a cold or heat pack** on your back for 10-15 minutes to help with the pain. Place a thin cloth layer between the skin and the cold or heat pack. Repeat this several times per day when it is flared up.
- **Change positions** frequently
- **Walk** for short distances several times each day
- **Take your medication** as prescribed

Body Mechanics



Getting into bed:

- Sit at the edge of the bed and place your hands on the bed.
- Tighten your stomach and buttock muscles.
- Use your arms to slowly lower your body towards the bed as you lift your feet up.
- Lie onto your side



Getting out of bed:

- Gently tighten your stomach and buttock muscle
- Roll to your side keeping your hips and shoulders moving together.
- Move your feet slowly off the side of the bed as you push with your arms into the bed to sit up.



Washing your face or shaving

- Stand with your feet shoulder width apart.
- Squat down slightly and stick your rear end out.
- Bend from the hips, not the back.
- Keep your back in a mid-range position, not too arched, not too rounded

Back Class

Fremont Physical Therapy



Squat lift

- Place your feet shoulder width apart.
- Bend your knees and slowly squat.
- Stick your rear end out as you go down.
- Keep the object close to your body.
- Only squat as far as you can without rounding your back



Half kneeling lift (Alternate Squat)

- Stand with your feet apart and one foot in front of the other.
- Bend your knees and slowly squat.
- Stick your rear end out and avoid twisting your back as you go down.
- Keep the object close to your body.
- Only squat as far as you can without rounding your back



Reaching overhead

- Get as close to the object as possible.
- Tighten your stomach and buttock muscles.
- Flatten your low back slightly to keep it from arching while reaching overhead.
- Use a sturdy step stool so you do not need to reach as high



Picking up small objects from the floor

- Place your hand on a counter or table.
- As you bend forward to reach for the object, slide your leg out behind you and lift it slightly

Consult with your physical therapist or doctor if you experience an increase in your symptoms with recommended exercises, or if you develop new symptoms of numbness, tingling, or a spread of the pain. This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. If you have questions or need more information about your medication, please speak to your pharmacist.



Sweeping

- Stand with your feet shoulder width apart.
- Stand in a slight squat position holding onto the handle.
- Keep your arms close to your body.
- Tighten your stomach and buttock muscles.
- Shift your weight from one foot to the other as you sweep.
- Do not twist your back or bend forward.



Kneeling to garden

- Get down on your hands and knees.
- Place a pad under your knees.
- Tighten your stomach and buttock muscles.
- Do not let your back sag.
- Grab weeds that are close to your body and pull slowly.

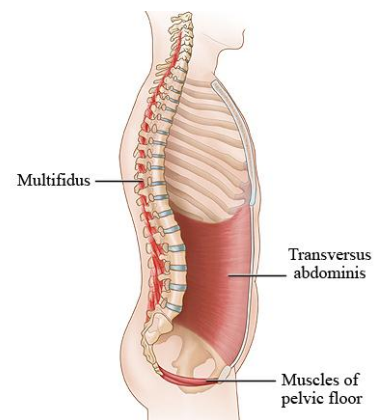
Exercise

As the pain continues, some muscles that support your back can become weak.

Involved muscles include: Abdominal, deep back muscles, quadriceps

Pelvic neutral

Lie on your back with your knees bent. Find your *neutral position*. Place your hands on your pelvic bones and move your pelvis back and forth to round and arch your lower back. Find the position that is the most comfortable for your low back.



Abdominal bracing: Transverse abdominis activation:

Gently contract your lower abdominal muscles without moving your back out of *neutral position*. Do this by breathing in and out, and then draw your belly button inward and upward. Think of your torso as a tree trunk and tighten the inner rings. You can also imagine that you are putting on a tight pair of jeans; zip up your pants without using your hands. Or, imagine you have a string around your waist and try to draw your tummy away from it.

Back Class

Fremont Physical Therapy

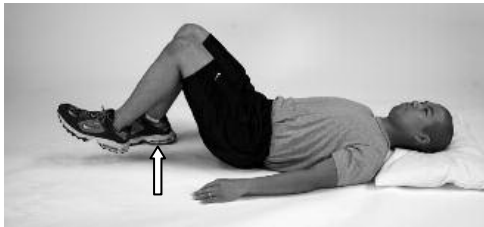
CORE STRENGTHENING EXERCISES



Hook-lying with arm lift

Lie on your back with your knees bent and arms by your sides. Lift one arm overhead slowly. Return it to the start position while lifting the other arm overhead slowly. Continue by alternating right and left sides.

Repeat 10 times



Hook-lying one leg lift

Slowly lift one foot about 1-2 inches from the floor. Lower slowly. Repeat with the other foot and continue alternating legs as if taking small steps.

Repeat 10 times



Bridge Lie on your back with your knees bent and feet flat on the floor, hands by your sides. Gently brace your abdominal muscles. Lift your hips 3-5 inches from the floor without arching your back. Hold bridge for 5 seconds and then slowly lower your hips to the floor.

Repeat 10 times



Bridge with leg lift:

Lift one leg with your knee bent, and then straighten your knee. Hold 3 seconds. Slowly bend your knee and lower your leg, returning to the *Basic Bridge* position. Repeat the movement with the other leg. Continue alternating sides while holding the bridge.

Repeat 10 times

Consult with your physical therapist or doctor if you experience an increase in your symptoms with recommended exercises, or if you develop new symptoms of numbness, tingling, or a spread of the pain. This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. If you have questions or need more information about your medication, please speak to your pharmacist.



Hands and knees - arm reach:

Lift one arm and reach forward. Slowly lower your arm. Repeat with the other arm, alternating sides.

Repeat 10 times



Hands and knees leg reach:

Slide one leg backwards until the knee is straight. Lift your straight leg 3-5 inches from the floor. Slowly lower. Repeat with the other leg. Continue alternating sides.

Repeat 10 times



Hands and knees - arm and leg reach:

Slowly slide one leg backward keeping your toes on the floor. At the same time, slide your opposite arm forward, then lift arm and leg 3-5 inches from the floor. Repeat with the other leg and arm.

Repeat 10 times

Wall Squat:

Stand with your back to the wall and feet about 12-18 inches away. Perform a small squat, making sure your knees stay over your ankles. Hold the position for 5-10 seconds. Return to standing and repeat.

Repeat 10 times



Back Class

Fremont Physical Therapy

Starting an Exercise Program

- Respect your pain
- You will continue to have good and bad days
 - Back off a little on bad days
 - Do not increase exercises just because it is a good day
- Success comes from being consistent
 - Avoid reacting too much to daily changes
 - Monitor the cumulative effects of other daily activities

Exercise for recovery

- Strengthening: Core stabilization
- Aerobic exercise
 - Begin an aerobic program
 - Walking is an easy way to start
 - Do some walking every day
 - Start at a time and distance that you can complete easily. Start with a 5-minute walk and add 5 minutes to your time as tolerated. Your goal is to reach 20-30 minutes of walking every day.
 - This may be your most important exercise.

Strengthening guidelines

- Start with 10 repetitions and build up to 20
- Start with 2 set and work up to 3 sets of each exercise
- Exercise 4-5 times per week.
- Avoid pain or any discomfort (during or after the strengthening exercises) Do not perform exercises which aggravate your symptoms. Do not hold your breath during exercises. Keep your spine in the neutral position.

Next Steps:

- Begin your exercise program today
 - Strengthening exercises.
 - Aerobic exercises (walking)
- If the exercises make you worse:
 - Have you done the exercise correctly?
 - Have you done too many repetitions?
 - Have you exercised too vigorously?
- Be patient. It is not always realistic to expect to eliminate all of your pain.
- It can take 2-3 months to create change.

Consult with your physical therapist or doctor if you experience an increase in your symptoms with recommended exercises, or if you develop new symptoms of numbness, tingling, or a spread of the pain. This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. If you have questions or need more information about your medication, please speak to your pharmacist.