

# CORE Basics:

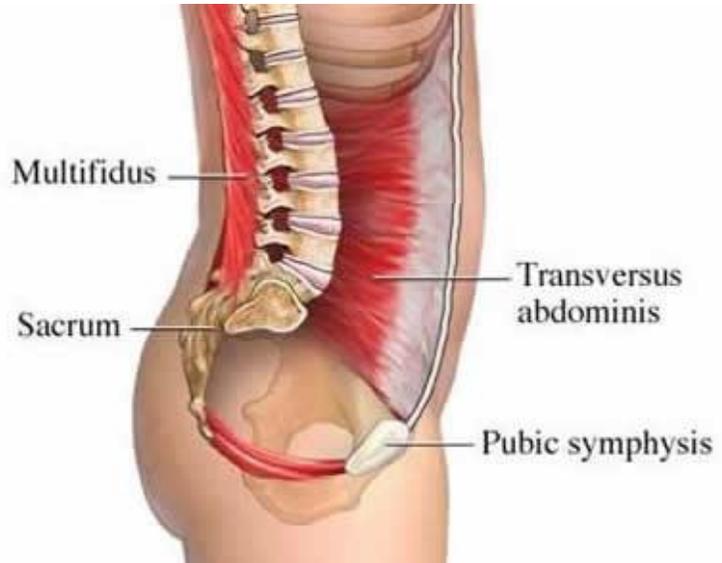
The Facts About Core Strengthening

Presented by: San Antonio Center for Physical Therapy

## WHAT IS THE CORE?



The “core” is comprised of several groups of muscles including the transversus abdominus, multifidus, diaphragm and pelvic floor muscles. These muscles work together to produce maximum stability in the abdominal and low back region as well as coordinate the movement of your extremities and spine.

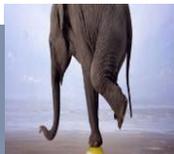


## PRIMARY FUNCTIONS



1. **RESPIRATORY**- During active expiration.
2. **FORCE TRANSFERENCE**- from the hips to the shoulders.
3. **STABILIZATION**- Of the spine.

## WHAT'S THE TAKE AWAY



Core muscles are important for virtually every aspect of your life and training these muscles should be part of your weekly routine.

## A HISTORY OF BACK PAIN:

Low back pain occurs in 8 out of 10 people at sometime during life. Most will recover from the acute onset of pain but it will last for months or years. This can impact their work, leisure and daily lifestyle. Numerous studies have shown that a spinal stabilization program can decrease pain and improve function better than hands-on therapy or patient education alone.

The US health care system spends about as much each year on spine problems as it does on cancer and spending has increased by about 30% in the last 10 years.

A recent study done by the University of Alberta and presented at the American College of Sports Medicine showed that when patients didn't give in to pain and continued a strengthening program their pain subsided over time. The study attributed this to an initial decrease in the patient's pain due to a loosening up of joints causing them to feel better. The long term improvements were attributed to increased strength and less fatigue, which prevented further injury and ease of activity throughout the day.

Core strengthening or spinal stabilization programs can help to improve your ability to withstand stress and load on the body as well as decrease pain. Combined with proper stretching these programs can be utilized as a preventative rehabilitation program or help you to recover from an injury.

[www.sacpt.com](http://www.sacpt.com)

# Core Strengthening Workouts



## Alternating Superman:

1. Lie face-down on the floor with your arms stretched above your head and legs straight.
2. Raise your right arm and left leg about 4-6 inches off the ground. Hold for 3 seconds then relax. Repeat with the opposite arm and leg.
3. Alternate your arms and legs 10-15 times.

## Bridging:

1. Lie on your back with both knees bent, your knees should be bent about 90 degrees.
2. Then push your feet into the floor, squeeze your buttocks, and lift your hips off the floor until your shoulders, hips and knees are all in a straight line.
3. Hold for 6 seconds as you continue to breathe normally, then slowly lower your hips back down to the floor and rest for about 10 seconds. Repeat 8-12 times.



## Plank:

1. Lie face-down on the floor. Lift yourself up so your weight is equally distributed on your elbows and toes, with your elbows directly below your shoulders.
2. Tighten your abdominal muscles; contract your core and your glutes. Make sure your back is straight, your buttocks is down and your hips aren't sagging. You should be in a straight line from your neck to your heels.
3. Hold the plank for about 20-45 seconds then relax. Repeat 2-3 times.

## Dying Bug:

1. Lie on your back with your knees and hips bent at 90 degrees and extend your arms out in front of you.
2. Do a slight pelvic tilt, then fully extend one leg and raise the opposite arm above your head while keeping your stomach tight. Bring your arm and leg back to the starting position then repeat with the opposite arm and leg.
3. Alternate arms and legs 10-15 times.



## Gorilla:

1. Start on the floor, on your hands and knees. You can have your hands either flat or in a fist on the floor, keep your back straight at all times, tighten your abdominal muscles with a slight pelvic tilt. Remember to breathe.
2. Raise your knees slightly off the ground, leaving just your hands and toes on the floor. Hold for 3 seconds then bring your knees back to the floor. Remember to keep your back nice and straight.
3. Repeat 8-12 times.



San Antonio Center for Physical Therapy is a privately-owned clinic offering personalized rehabilitative care to individuals with neuromuscular and musculoskeletal dysfunctions. The Doctors of Physical Therapy are certified Manual Therapists and specialists in orthopedic and sports injuries. We are committed to excellence by providing quality, cost-effective, outcome-based physical therapy. It is of utmost importance that our patients are treated with respect and friendliness in a professional, caring environment.

Dr. Jarrett and Dr. Nietz received their Manual Therapy Certification (MTC) during their Doctoral studies at the University of St. Augustine for Health Sciences in Florida. They utilize a unique manual approach to specialize in the treatment of spinal dysfunction, headaches, neck pain, and sports injuries. They are the company Physical Therapists for San Antonio's premier professional ballet company, Ballet San Antonio. Dr. Jarrett and Dr. Nietz have specialized training and certifications through the American Sports & Fitness Association and the Harkness Center for Dance Injuries. Dr. Nietz has further training and certification through BACKtoGOLF and the Titleist Performance Institute.



18518 Hardy Oak Blvd, Suite 210  
San Antonio, TX 78258

Phone: (210)-545-5222

Fax: (210)-545-5225