



# SAN ANTONIO Center for Physical Therapy

*"PERSONALLY TAILORED PAIN RELIEF"*

## Back Basics

"How do you lift heavy objects?" Inevitably, the response is, "I don't bend my back, I bend at my knees." Fortunately this answer is half right but maintaining a good "lordosis curve" in the low back while lifting will help as well. When lifting most objects a combination of proper spine posture and bending of the knees and hips is best.

Here is a brief summary of low back posture and the rationale behind the current school of thought regarding lifting.

The low back, also called the lumbar spine, is in a position of greatest stability when it is in a "lordotic" or slightly backward curved position. The muscles of the low back and the abdominals are able to maximize their support and protection of the lumbar spine when it is in this "lordotic" posture.

In contrast, medical research suggests that when you move into a full squat to pick something up, your low back actually bends quite a bit. This forward bent or "kyphotic" posture is not a stable position for the low back. Pressure increases in the disks of the low back and the muscles are not as well equipped to protect the low back. Not only is the low back taxed when you squat, this posture places a compressive load of up to seven times your body weight on the knees.

Because "bending at the knees" and moving into a full squat when lifting place quite a bit of stress on the back and knees, the following rules are recommended with lifting:

- » Warm up before you do your lifting.
- » Have a plan before you lift
- » Make sure you have a clear path to where you would like to set down the object you are lifting.
- » Test the Load - if the load seems too heavy for you, make sure you have someone to help you out.
- » Keep you back relatively straight and bend your knees.
- » Tighten your abdominals to stabilize the low back before you lift.
- » Keep your feet slightly greater than shoulder width apart so you have a good base of support.
- » Use the power of your thighs to lift the load. Your glutes and thigh muscles are much more capable of lifting heavy objects.
- » Keep the load close to your body at the level of your waist if possible. This decreases the torque on your low back.

So to everyone, I hope the above information helps keep your low back healthy. If you have any questions, feel free to give us a call.



**Brian C. Nietz, PT, DPT, MTC**  
*Doctor of Physical Therapy  
Certified Manual Therapist  
Certified Golf Fitness Instructor*

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### Services

- Back Pain and Spine Rehabilitation
- Neck Pain and Headaches
- TMJ Dysfunction
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- Golf Injuries
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- Sports Injuries
- Overuse Injuries
- Work-related Injuries
- Pre & Post Surgical Rehabilitation
- Manipulation Therapy
- Prehabilitation



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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.



**Shea E. Jarrett, PT, DPT, MTC**



**Brian C. Nietz, PT, DPT, MTC**

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.

**San Antonio Center for Physical Therapy**  
**Located in Suite 210 of the Sonterra Oaks Medical Plaza**

**From I-10:**

Take 1604 East to 281. Stay on access road and take the turnaround to access road for 1604 West. Turn right on Hardy Oaks Blvd, just past Macaroni Grill.

**From 281, Heading North or South:**

Take Sonterra Blvd Exit. Take right onto Sonterra Blvd. Turn left on Hardy Oak Blvd.

**From I-35:**

Take 1604 West to Stone Oak Pkwy Exit. Merge to right lane of access road. Turn right onto Hardy Oak Blvd, just past Macaroni Grill.

