

ACTIVE P.T. SOLUTIONS  
...BECAUSE LIFE  
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# APTS Monthly



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## Office Hours:

Monday -

8:00am - 5:30pm

Tuesday -

8:00am - 7:00pm

Wednesday -

8:00am - 5:30pm

Thursday -

8:00am - 5:30pm

Friday -

8:00am - 4:00pm

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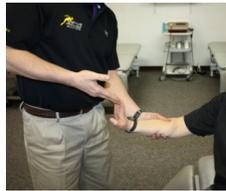
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## Myths of Manual Therapy



When patients are referred for "manual therapy" as part of their physical therapy treatment, it is not un-

common for the referral to be followed by the phrase, "I just want to let you know that it will probably hurt". The thought that comes to the patient's mind may be something to the effect of, "I want to go to physical therapy to get out of pain, not to get more pain". In many ways, providing the patient with the "fire and brimstone" speech about "manual therapy" may actually discourage them from trying a manual therapy approach to treating their problem. The purpose of this article is to dispel some of the "myths" of manual therapy providing a clearer picture of the "manual therapy" experience a patient may encounter.

Manual therapy is, for the most part, any form of mechanical therapy applied with or by the hands. Manual therapy techniques include joint mobilization (non-thrust), manipulation (thrust), myofascial release techniques, neuromuscular techniques, active release techniques (shown above), instrument assisted techniques (shown below), cupping, etc. Basically, if the provider uses his or her hands in mobilizing, manipulating, or stretching a muscle, tendon, ligament, nerve, or joint, it is considered a manual therapy technique. This provides the treating healthcare provider with a variety of options when treating a patient. There are gentle techniques for patients in acute or postoperative pain and more aggressive techniques for patients with chronic or lower level pain.

The two biggest myths of manual therapy treatment are (1) that it has to hurt in order to be effective and (2) that the treatment is all or nothing: very aggres-

sive or not at all. Nothing could be further from the truth! In fact, manual therapy is more about "feel" than "force". Overly forceful manual therapy is counterproductive for two reasons: it causes unnecessary pain for the patient and it prevents the provider from accurately assessing the tissues that are being treated. Manual therapy is more about shades of gray than it is about absolutes. The provider needs to be able to assess what tissues are restricted, adhered, or scarred to one another and which tissue is causing the restriction or pain in that area. This can only be accomplished with slower movements and working within a pain-free range of motion. I would be remiss if I didn't say that in some cases the treatment is uncomfortable, because it is. Generally speaking, we use the numerical pain scale (NPS) to help the patient understand what is an acceptable level of discomfort. The scale is 0-10; 0 being no pain and 10 being the worst possible pain. Typically we will inform the patient that a 4-5/10 is an acceptable NPS during treatment depending on their starting point. On occasion, the pain level may go higher but this usually occurs in a small percentage of patients that have long-standing, very stiff joints or multiple underlying pathologies. Communication between the patient and the provider is key to making the manual therapy treatment as effective as possible.

Some patients experience a sense of "soreness" after the treatment but at the same time report an increase in range of motion and may state that, "I feel looser". The following day it is not uncommon to report delayed onset muscle soreness similar to a heavy exercise bout or a day of working in the yard. This usually resolves in 48-72 hours.



On occasion, depending on the manual treatment that is applied, there may be areas of bruising. This usually happens because the "lymph" layer, or drainage layer, is compressed or adhered between the adjacent tissues. This causes fluid to back up and pool. This is why the home exercise program is so crucial. The exercise assists in moving the fluid through the injured area and reestablishing good tissue movement after the manual therapy treatment.

When combined with a comprehensive therapeutic exercise program, manual therapy treatments can be one of the most effective methods for the treatment of a variety of musculoskeletal disorders such as lower back pain, neck pain, shoulder pain, foot and ankle pain, knee pain, and hip pain. There have been several good research studies over the last 10 years that show when you combine manual therapy with therapeutic exercise, the treatment is more effective than either of those treatments by themselves.

Whether you are a high school athlete or a grandparent, manual therapy is a safe and efficient treatment methodology for most musculoskeletal disorders from strains and sprains to osteoarthritis. Adding manual therapy to your post-operative rehabilitation protocol can also speed your recovery. If your doctor is recommending physical therapy you may want to consider requesting that "manual therapy" be part of the physical therapy order. If you were told it was going to be painful, discuss your concerns with the physical therapist performing the treatment rather than avoid a potentially effective treatment.

Article by Dale Buchberger, DC, PT, CSCS

## Exercise of the Month: Cross-Body Shoulder Stretch



Cross-body shoulder stretch, also known as a horizontal adduction stretch

The cross-body shoulder stretch (also known as the *horizontal adduction stretch*) increases flexibility of the posterior part of the shoulder. It is performed by bringing one arm across the chest as shown. Grasp the elbow with the opposite hand and use that opposite hand to pull the affected arm into your chest. Try to keep the elbow at the same height as the shoulder. Be

sure to not shrug the affected shoulder up to your ear; rather, squeeze the affected shoulder blade down and back while holding the stretch. You should feel this stretch along the back of the affected upper arm and shoulder. Hold this stretch for 20-30 seconds and perform one at a time but 3 different times throughout the day.

Remember, never pull a

stretch so far that it is painful! We tell our patients to keep the pain level less than a 6/10 on the pain scale. If you're experiencing increased pain and not relief with your stretches (either during or after doing the stretch), discontinue and seek the help of a health care professional.

## October is National PT Month



CHOOSE THE SAFER WAY TO MANAGE PAIN.

**#ChoosePT**  
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When combined with a comprehensive therapeutic exercise program, manual therapy treatments can be one of the most effective methods for the treatment of a variety of musculoskeletal disorders.

National Physical Therapy Month is an annual opportunity to recognize the physical therapy profession's efforts to "transform society by optimizing movement to improve the human experience". De-

spite extensive efforts to raise awareness of and address the human toll of the opioid epidemic, Americans continue to be prescribed and to abuse opioids at alarming rates. This October, the American Physical Therapy Association will carry on raising awareness of physical therapy as a safe

and effective alternative to opioids for the long-term treatment of chronic pain by its award-winning #ChoosePT campaign.



## What's Going on at APTS?

Dr. Dale Buchberger returned from his work in Taiwan on September 1. The following weekend, he flew to Whittier, California, to speak at a seminar, and the weekend after that, he drove to Trois Rivieres, Quebec, Canada, to speak at a seminar. Phew! He is done traveling now for a while.

All providers at APTS took an online recertification course for Active Release Technique on Tuesday, September 19. This was a four-hour course on the computer that counted as continuing education for ART for the coming year. Next year, they will be required to travel and take a live course, as per ART guidelines.

Tom Zirilli, PT, did an interactive presentation on the benefits of foam rolling at the Auburn YMCA on Thursday, September 28th, with at least 15 people in attendance.

The staff at APTS had their recertification in Basic Life Support (CPR) on Friday, September 29th. May we never have to use it!



# What Is a “Spondylo”?

There are many causes of lower back pain. In teenagers and young adults, lower back pain may be caused by something commonly referred to as a “spondylo”. This term has been commonly used as an abbreviation for either a *spondylolysis* and/or a *spondylolisthesis*.

*Spondylolysis* is a defect in an area of the vertebrae referred to as the *pars interarticularis*, the thin piece of bone that connects the upper and lower segments of the spinal (or facet) joints. This defect can be the result of a congenital defect, a stress fracture from repetitive movement, or a one-time traumatic incident, usually a hyperextension injury. The word *spondylolysis* comes from the Greek words *spondylos*, which means “spine” or “vertebra”, and *lysis*, which means “a break or loosening”.

People with *spondylolysis* are generally asymptomatic and don’t realize they have the condition. When symptoms do occur, lower back pain is the most common. The pain is generally worse with vigorous exercise or activity. Symptoms often appear during the teenage growth spurt. The typical age of a person diagnosed with *spondylolysis* is 15 to 16 years.

*Spondylolysis* affects about 3 percent to 7 percent of Americans. It is seen more often in males than in females. The condition is a common cause of low back pain in children and the most likely cause of low back pain in people under the age of 26. *Spondylolysis* is more common in children and teens participating in sports that place a lot of stress on the lower back or cause a constant overstretching (hyperextending) of the spine, such as gymnastics, weightlifting (especially heavy squatting), and football.

*Spondylolisthesis* (spon + dee + lo + lis + thee + sis) is a condition in which one of the bones of the spine (vertebrae) slips forward on the vertebra below it. As one vertebra slips forward on another, it causes the

muscles, tendons, and ligaments of the back to stretch, eventually resulting in nerve compression and associated pain.

The word *spondylolisthesis* comes from the Greek words *spondylos*, which means “spine” or “vertebra,” and *listhesis*, which means “to slip or slide.” There are three common forms of *spondylolisthesis*. The first is known as congenital *spondylolisthesis*. Congenital means, “present at birth.” Congenital *spondylolisthesis* is the result of an abnormal arrangement of the vertebrae that puts them at greater risk for slipping. The second is referred to as isthmic *spondylolisthesis*. This type occurs as the result of *spondylolysis*, a condition that leads to small stress fractures (breaks) in the vertebrae. In some cases, the fractures weaken the bone so much that it slips forward. The third type is degenerative *spondylolisthesis*. This is actually the most common form of the disorder. With aging, the discs between the vertebrae begin to lose water, becoming rigid and unable to resist movement by the vertebrae.

*Spondylolisthesis* is the most common cause of back pain in the teenage population. Symptoms of *spondylolisthesis* often begin during the teenage growth spurt. Approximately 5%-6% of males and 2%-3% of females will have a *spondylolisthesis*. Degenerative *spondylolisthesis* occurs most often after age 40.

As with *spondylolysis*, people with *spondylolisthesis* are generally asymptomatic and don’t realize they have the condition. The pain pattern is similar to *spondylolysis*, usually spreading across the lower back, feeling similar to a muscle strain. The patient may also experience sciatic-type symptoms with pain radiating down the leg to the foot.

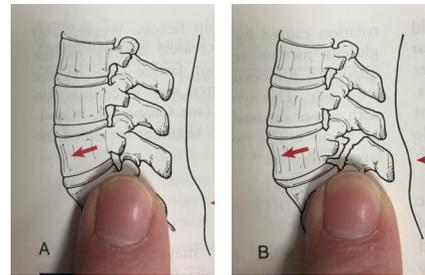
There are several different grades of *spondylolisthesis*. A radiologist determines the degree of slippage on spinal X-rays. The slippage is graded I through V:

Grade I: 1 percent to 25 percent slip  
Grade II: 26 percent to 50 percent slip  
Grade III: 51 percent to 75 percent slip  
Grade IV: 76 percent to 100 percent slip  
Grade V: The vertebrae is positioned in front of the vertebrae below

Generally, the symptoms of all grades can be treated conservatively. Surgical consultation or intervention is considered when symptoms fail to respond to conservative treatment such as physical therapy. If neurological symptoms begin to progress and function is being lost, surgical consultation and intervention are considered earlier in the management process.

*Spondylolysis* and *spondylolisthesis* are commonly seen together but can also be seen separately. If you have an athletically active teen complaining of lower back pain, they should see a healthcare provider to be assessed. Having an X-ray to check for a “spondylo” is an important step to getting an accurate diagnosis. Once it is assessed consider physical therapy as a conservative option for treatment. Remember, it’s your right as the patient to choose which physical therapist you see!

Article by Dale Buchberger, DC, PT, CSCS



Spondylolysis (left) and spondylolisthesis (right)

**Spondylolysis is a defect in an area of the vertebrae that connects the upper and lower segments of the spinal joints. Spondylolisthesis is a condition in which one of the vertebrae slips forward on the vertebra below it.**

## APTS Recipe Box: Smoky Roasted Acorn Squash and Sausage Soup

**Ingredients:** 2 acorn squash, halved; 1.5 lbs pork sausage; 1 yellow onion, diced; 1 garlic clove, minced; 1/2 cup canned coconut milk; 1/2 cup vegetable broth; 1 tbsp smoked paprika; 1/2 tsp cayenne pepper; salt and pepper, to taste; 2 tbsp fat of choice; pepitas, to garnish.

**Instructions:** Preheat oven to 415 degrees. Place cut acorn squashes on a baking sheet, open side down. Bake for 20-25 mins until soft to the touch. When the

squash has about 10 minutes left to cook, start a large skillet over medium heat with 2 tbsp fat, minced garlic, and diced onions. Once the onions become translucent, add pork sausage to the pan and use a wooden spoon to break it up into pieces. Cook through. When the squash is roasted and soft, scoop the squash out of the skin with a spoon and place it into a food processor. Add coconut milk and broth to the food processor. Puree until smooth. Add smoked paprika, cayenne pepper, salt, and

pepper and continue to puree until smooth. Place pureed soup in a bowl, top with sausage, and sprinkle with pepitas.

The soup should stay warm while you’re pureeing it because the acorn squash will be very warm, but if it doesn’t, add the pureed mix to a saucepan and heat it up on the stovetop.

Source: <http://www.paleomg.com/smoky-acorn-soup/>



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Get Well...Get Active...Be Active

Newsletter Edited by Carolyn B. Collier, PTA

**At Active Physical Therapy Solutions,  
we utilize the most cutting edge  
treatment and management  
techniques available. Our goal is to  
deliver the best possible healthcare in  
a friendly, caring, and well-organized  
environment. Our staff is here to  
provide active solutions to achieving  
your personal goals!**

**...BECAUSE LIFE SHOULD BE**

**ACTIVE!**

## Nutrition 101: How Do We Resist Eating Too Much?

Two out of three American adults—and one out of three children and teens—are overweight or obese. Food companies are constantly pushing us to eat and drink. Why can't we just say no? Well, the human brain evolved at a time where food was really scarce, so it has been optimized over the course of evolution to respond to food cues, and to react to calorie-dense food in particular. We're supposed to find food rewarding and enticing. If we found a berry bush in the wilderness, we'd remember how tasty the berries are and be motivated to go back to get them. So we have strong mechanisms in the brain to make sure we get enough calories. Back then, we didn't need a defense against eating too much. But now, food is very available, and the foods that are most advertised and available have been engineered to be way more rewarding than the foods that have been available for much of human history. People don't report that they



can't lose weight because they can't stop eating apples or they're eating too many beans. The top foods we are struggling with are pizza, chocolate, chips,

your attention?

1. **Don't let yourself get too hungry.** If you're too hungry, your stomach tells your brain that "you really need to be on the lookout and respond to any food cues you see". Skip the crash diets and focus on the quality of the food you eat.
2. **Don't drink your calories.** Sugary drinks—soda, sports drinks, energy drinks, or sweetened teas—lead to weight gain. And it's not clear why. Perhaps liquid calories don't "register". People eat only slightly less food when they drink a 150-calorie glass of soda with lunch than when they drink a zero-calorie glass of water or diet soda.



Try to get foods that you enjoy but that don't cause an intense internal struggle. If you have one bite of something but keep thinking about how you want more, that's

exhausting. The willpower parts of our brain can only take so much.

4. **Address your stress.** Stress can be a huge cue. Notice the emotional triggers that can set you up to crave palatable rewarding foods. Go for a walk, call a friend, try some meditation, or distract yourself. The craving will peak and then go down if you don't give in to it. Why does stress take a toll? When we're stressed, the signal in the brain that tells us to stop eating is weakened. Stopping ourselves from doing things we want is taxing and energy intense. So when we're stressed, there isn't as much energy for that.
5. **Get enough sleep.** When researchers let people sleep only four hours a night for five days, they ate more and gained weight. In similar studies, participants reported increased hunger, and their appetite was greatest for high-carbohydrate or high-fat foods.
6. **Give yourself a break.** Have some compassion for yourself because it is really hard. Our food environment is set up to make it hard for people to eat healthier.



Article by Carolyn Collier, PTA

Source: Nutrition Action Healthletter, April 2017  
[cspinet.org](http://cspinet.org)