

ACTIVE P.T. SOLUTIONS  
...BECAUSE LIFE  
SHOULD BE ACTIVE

# 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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Guess who is in the photo  
to the right?  
And which one is he?

## Preventing Little League Injuries

It is that time of year again: major league baseball and little league baseball season is in full swing. This article will take a hard look at some of the least talked about causes of little league related arm injuries. Parents, players, coaches, and league officials should use the information provided to reduce injuries this season.

Coaches are volunteers who have the time and not necessarily professional expertise in the field of baseball. Therefore, they may not be able to recognize when things are going wrong with a young pitcher. Whether the problem is stage of development, mechanical fault, or warning signs, most little league level coaches just don't have the background to catch the problem before the "wheels fall off the bus". We recommend that coaches take a course in injury prevention specific to the little league athlete.

Players between the ages of 9-14 are at the greatest risk for many reasons. The first is that their developmental stage may not match their chronological age. In other words, they may be either physically older or younger than their actual age. More talented and highly developed players for their age are more likely to get injured. Even though their outward appearance is advanced, their inner skeleton is not. Little League Baseball has instituted pitch limits as a means to protecting young arms. What coaches and parents need to know is that when a player is advanced for their age, those pitch counts should be restricted further. Dr. Michael Axe from the University of

Delaware has shown statistically that these more advanced players are at a greater risk of injury and need a higher degree of restriction.

In an attempt to be more competitive, coaches and parents encourage young arms to throw alternative pitches such as the curveball or slider. The majority of players lack appropriate physical development and/or proper instruction to throw



these pitches correctly. Thus, the statistics in the 9-14 year-old age group show that players who throw curveballs and sliders are at a 52% increased risk of shoulder pain and 86% increased risk of elbow pain. Instead of gimmicks, concentrate on control and changing speeds. Learning a changeup is far better than throwing a "slurve". Remember this simple phrase, "up, down; in, out; change speeds".

The 13-14 year-old age group will have to adapt from a 46' pitching distance off of a lower pitching mound to a 60' 6" pitching distance off of an increased slope of pitching mound. The pitcher who excelled at 46' and a flat mound is now asked to excel at 60' 6" and an inclined

mound 6-8 months later. This rapid change in demand can result in increased arm injuries. It is recommended that pitch limits be restricted by 20% in the first year at the new field structure. This will allow for adaptation time and reduce injury rates.

While we all want to see our children do well, sometimes parents become overzealous. Children may be better served if parents were supportive instead of aggressive. Sometimes we want our children to do so well that we fail to recognize that developmental age and ability may be linked. Like it or not, some kids are behind their peers developmentally and parents need to be patient. Allow kids to develop and mature. Encourage them to practice but also explain the timeline of maturity. If parents are patient and supportive, one day your child will develop better than you thought they could. Continue to encourage involvement in activities and sports that they show interest in. Please remember during the spring and summer youth sports season that youthful talent should be cultivated, developed, and protected – NOT abused!

### Safety Recommendations for Adolescent Baseball Pitchers

1. Avoid pitching with arm fatigue and/or pain.
2. Avoid pitching more than 80 pitches per game. (Little League baseball restrictions are as follows: 13-16: 95 pitches per day, 11-12: 85 pitches per day, 9-10: 75

# Exercise of the Month: Clam Shells



**Clam shell exercise: start & end position (top), exercise position (bottom)**

The clam shell exercise is named for the way your lower body resembles a clam shell when you perform it. It primarily works the *gluteus medius* muscle on the outside of your buttock and upper thigh, which is responsible for stabilizing your pelvis. You can do the clam shell with no equipment and very little space.

The most basic form of the clam shell involves lying on your side against a wall with your hips stacked and your head, back, and bottom of feet all in contact with wall. You can hold your head as shown, or rest on an outstretched arm or pillow. Maintain feet and ankles on top of one another, then lift top knee off of bot-

tom knee approximately 4 inches. Slowly lower top knee to starting position. Perform 10-20 repetitions on each side 1-2 times per day. Gradually increase your repetitions to 30.

Once you can perform 30 repetitions comfortably, you can add resistance to this exercise. For one, you can simply place a weight on the outer thigh of the top leg and drop your repetitions back to 10, gradually working your way back up to 30 reps. Another option is to loop a resistance band around your thighs just above your knees, performing repetitions the same way.

Clam shells serve various functions,

from strengthening the hips and inner and outer thighs, to stabilizing your pelvic muscles, and toning your buttocks. It is also used to reduce lower back pain by strengthening your core and lower back muscles. Although the clam shell does not directly work the abdominal muscles, you can actively engage your core muscles while performing this exercise by drawing your belly button toward your spine.

There are several variations of this exercise that can be found on the internet. Before making too many adjustments to this basic exercise, make sure you consult a health care professional to find out which variation is right for you.

*Coaches are volunteers who have the time and not necessarily professional expertise in the field of baseball. Therefore, they may not be able to recognize when things are going wrong with a young pitcher.*

## Preventing Little League Injuries Con't

3. Pitches transitioning from 46' to 60' 6" should use pitch counts of two age groups before for the transition year.
4. Avoid pitching competitively more than 8 months per year.
5. Avoid pitching more than 2500 pitches in competition per year.
6. Monitor pitchers with the following characteristics closely for injury:
  - a. Pitchers who regularly use anti-inflammatory drugs to "prevent" an injury
  - b. Regularly starting pitchers
  - c. Pitchers who throw with velocity >85 mph
  - d. Pitchers who are taller and heavier for

- e. Pitchers who warm up excessively
- f. Pitchers who participate in showcases or tournament play

*Modified from: Olsen II SJ, et al Am J Sports Med 2006;34:906-912*

**Article by Dale Buchberger, DC, PT, CSCS**



**Chamber of Commerce Awards (top), Cayuga County Health Fair (right)**



## What's Going on at APTS?

Active Physical Therapy Solutions has won the Cayuga County Chamber of Commerce Small Business of the Year Award for businesses operating 6-14 years! We were honored at a luncheon at the Springside Inn on May 19. Thank you to everyone who has supported us since our opening on March 23, 2009!

Active Physical Therapy Solutions participated in the

Cayuga County Employee Health Fair at the County Office Building on Thursday, May 12. Carolyn and Linda brought Casey, our PT student at the time, to show the county employees what APTS is all about!

Casey Tarpey, our PT student from Ithaca College, passed her second clinical affiliation with flying colors! We have another physical therapy student from Ithaca College joining us for 8 weeks starting on Monday, June 6. Julie

Hauberg will be doing her first clinical affiliation at APTS until Friday, July 29. Please help us help her learn about the real world of physical therapy!

Update on Zach Buchberger: He is now in Quantico, VA, without any form of electronic communication! If you would like to send words of encouragement, ask us for his official address. He will be there until the end of June.

# What are Back Spasms?

Degenerative joint disease and degenerative disc disease are common causes of “back spasms” in the older population but they are unlikely causes in the young, athletic population. It is not completely out of the question to have a young athlete with premature degenerative disc disease, but it falls fairly low on the diagnostic totem pole. These conditions cause the surrounding muscles to overload and fatigue, resulting in a reactive spasm. Sometimes degenerative changes in the spine can compromise nerves exiting the spine and this nerve irritation results in the muscles going into spasm.

The first thing that the sporting world needs to understand is that “back spasms” is not a diagnosis. There is always a reason (be it mechanical, physiological, or both) for anyone to experience back spasms. While it is rare for young athletes to experience these types of back issues, it is not unheard of. When you have tall athletes that are fast, strong, and mobile, the forces on their bodies are magnified. When they twist or fall, everything is amplified. What we perceive on television to be a minor incident may have actually been quite forceful. Since the mechanism is usually multidirectional, several different structures can be injured at the same time, making it difficult to approximate the recovery time. While diagnostic tests such as MRI have revolutionized diagnostic medicine, not every disorder is visual. Many times the injury is a matter of function that renders the expensive test useless.

Younger athletes may have spondylolysis

and/or spondylolysis of the lower back. These are spinal defects that the athlete may have been born with or possibly acquired through athletic activity. If the athlete has a preexisting “spondylo”, it can be aggravated through a fall and twist. Once it is symptomatic, it can be quite slow to settle down enough to return to play. A “spondylo” can result in a slightly unstable segment of the lower lumbar spine segments. This instability causes the muscles of the back to prematurely fatigue and the fatigue results in spasm. Most of these cases are treated with strengthening the unstable segments and improving flexibility to the adjacent areas, such as the hips and legs.

A herniated disc is also a common injury to the lower back in high-level athletics. Long hours in the weight room, lifting heavy weight with quick motions repeatedly, pounding up and down the court/field, falling and twisting, etc., can add up over time and make athletes susceptible to disc damage and/or herniation. Since the disc itself has nerve endings, any damage can send messages of irritation to the surrounding muscles resulting in spasm to protect the area. A herniation can put direct or indirect pressure on a specific exiting nerve and this can likewise send messages of protection to the surrounding muscles resulting in spasm.

The lumbar spine is quite complex in structure. There is an intricate network of muscles, tendons, and ligaments that keep the lumbar spine structurally sound and mobile. The faster and more forceful an athletic endeavor is performed increases the chances of a small

imbalance or defect rearing its head. So the faster an athlete performs, the more likely it will be to identify an imperfection. The faster you drive, the easier it is to figure out that your tires are out of balance. This is the case for high-level athletes.

Often times athletes are focused on getting bigger, stronger, and faster that they forget to do simple things that can keep them playing and reduce injury risk. Take time to stimulate and strengthen the small muscles of the body that hold the system together. A motor with tons of horsepower can't run without a solid frame. Athletes need a strong frame or stability system to match the horsepower they have developed.

With everything that a sports program does on a daily basis (from conditioning to game planning), there are always things that individual athletes will need to do on their own because practice time is limited by the NCAA. Each athlete may have his or her own little imperfection that requires extra attention off the court or field.

Article by Dale Buchberger,  
DC, PT, CSCS

*Degenerative joint disease and degenerative disc disease are common causes of “back spasms”, but that is not a diagnosis. There is always a mechanical or physiological reason for anyone to experience back spasms*

## APTS Recipe Box: Grape Super Salad

This grape super salad is perfect to welcome summer—it's refreshing, full of flavor, and uses some great summer staples.

**Ingredients:** 3 broccoli florets, cut small; 3/4 purple onion, cubed; 3/4 cups slivered almonds; 1 1/2 cups purple grapes, halved; 10 strips uncured bacon, cooked and diced; 1/3 cup organic raisins; 1 cup Paleo Mayo; 1/4 cup fresh squeezed

lemon juice; sea salt, to taste; black pepper, to taste.

Prep all ingredients ahead of time. Add **Paleo Mayo** and lemon juice to a small mixing bowl and whisk both ingredients well. Set aside.

Toss broccoli florets, onion, grapes, and almonds in a large Tupperware bowl. Mix together. Incorporate bacon bits and raisins into the mix-

ture. Add the Mayo-lemon mixture to the salad and mix well, making sure everything is covered. Enjoy right away or cover with a lid to save for later!

[www.amazingpaleo.com/2013/03/22/grape-super-salad/](http://www.amazingpaleo.com/2013/03/22/grape-super-salad/)

Paleo Mayo recipe: [www.amazingpaleo.com/2013/03/21/how-to-make-your-own-paleo-mayo/](http://www.amazingpaleo.com/2013/03/21/how-to-make-your-own-paleo-mayo/)



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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: The 10-Day Detox Diet Meal Plan

Last month, we introduced the idea of the 10-Day Detox Diet created by Dr. Mark Hyman. This 10-Day Detox Diet can reset your metabolism to "factory settings". You can lose weight without going hungry, and possibly clear up a whole list of health problems. This month's article will breakdown exactly what the diet entails.

**Breakfast: Dr. Hyman's Whole Food Protein Shake.** This will power your through the hardest and longest of days. It is 100% whole, fresh, real food, with a spotlight on healthy fats and potent antioxidants.

**Ingredients:** 1/2 cup frozen wild blueberries, 1/2 cup frozen cranberries, 1/4 lemon with rind (optional), 1 tbsp almond butter, 1 tbsp pumpkin seeds, 1 tbsp chia seeds, 1 tbsp hemp seeds, 2 walnuts, 1/4 avocado, 1/2 tsp extra-virgin coconut butter, 1/2 cup unsweetened almond milk, 1/2 cup water.

Combine all the ingredients in a blender and blend on high until smooth, about 2 minutes. If the shake is too thick, add more water until you reach a thick, but drinkable, consistency. Makes one shake.

### Lunch: Dr. Hyman's Super Salad Bar

- Choose a green base: arugula, spinach, or mixed salad greens
- Choose 3 vegetables: red, green, or orange

bell pepper, celery, mushroom, snap peas, jicama, carrots, radish, broccoli, cauliflower, cabbage, onion, roasted peppers, artichoke hearts, parsley, dill, cilantro, mint

- Choose 1 healthy fat: 1/4 avocado, 2 tbsp nuts or seeds (walnuts, almonds, pumpkin, or sunflower seeds), 2 tbsp olives (Kalamata)
- Choose one serving of protein (4 ounces): salmon, sardines or shrimp (wild fresh or canned), diced chicken or turkey, cubed tofu or tempeh
- Choose your dressing: 2 tbsp tahini with lemon juice, 1 tbsp olive oil with lemon juice or apple cider vinegar

### Dinner: Nourishing Entrees with Aromatic Greens

- Choose a green base: broccoli, asparagus, arugula, spinach, kale or chard. Steam or lightly saute with some garlic and oil.
- Add 4-6 ounces of protein (chicken, turkey, salmon, shrimp, scallops, grass-fed meat, canned salmon, sardines or herring, hard boiled omega-3 eggs, tofu, or tempeh).

### Snacks: Quick Creamy or Nutty Snacks

- Choose either: creamy tahini, hummus, or tapenade with sliced raw veggies of choice

- Or: 1/2 cup mixed nuts (raw, if possible), like almonds or walnuts

### Unlimited Non-Starchy Vegetables Allowed:

arugula, artichoke, mushrooms, Swiss chard, asparagus, dandelion greens, mustard greens, tomatoes, bean sprouts, eggplant, onions, turnip greens, beet greens, endive, parsley, watercress, bell peppers (yellow, red, or green), fennel, radishes, celery, broccoli, garlic, radicchio, chives, Brussels sprouts, ginger root, snap beans, collard greens, cabbage, green beans, snow peas, jalapeno peppers, cauliflower, hearts of palm, shallots, kale, summer squash, zucchini, spinach, and lettuce.

**Approved to cook and season meals with:** coconut oil, olive oil, nut butters, nuts & seeds (hemp, chia, flax, pumpkin, and sesame), coconut milk, unsweetened almond milk, balsamic vinegar & apple cider vinegar, low-sodium vegetable broth, Dijon mustard, sea salt & black pepper, turmeric, cayenne, thyme, rosemary, chili powder, cumin, sage, oregano, onion powder, cinnamon, coriander, cilantro, paprika, and parsley.

For more detailed information on the 10-Day Detox Diet, visit <http://www.doctoroz.com/article/10-day-detox-diet-jump-start-guide>

Source: <http://www.doctoroz.com/article/10-day-detox-diet-one-sheet>