

ACTIVE P.T. SOLUTIONS
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SHOULD BE ACTIVE

APTS Monthly



VOLUME VIII, ISSUE VII

JULY 2018

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

Location:

91 Columbus Street

Auburn, NY 13021

P: (315) 515-3117

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Either our families or our friends growing up drive most of our exercise experiences. It usually starts with the big three: football, basketball, and baseball. Then from there it may change based on interest, peer group, parental history, or coaching suggestions. What is rarely done is choosing our exercise choices by our joint structure. Typically speaking, we are either loose jointed or stiff jointed. This is determined by the genetic makeup of our bones, ligaments, and supporting tissues.

Patients that are loose jointed are thought to have joint hypermobility syndrome. This can be assessed using the Beighton score, which consists of five tests: Score one point if you can place your palms on the ground while standing with your legs straight; one point for each elbow that bends backwards; one point for each knee that bends backwards; one point for each thumb that touches the forearm when bent backwards; one point for each little finger that bends backwards beyond 90 degrees. If your Beighton score is four or more, it is likely that you have joint hypermobility.

Children, adolescents, and even adults can have hypermobile joints. Individuals with hypermobile joints usually have difficulty with weight bearing exercises such as heavy weight lifting, body weight exercises such as pushups, throwing and striking activities such as baseball and tennis, and collision sports like football and ice hockey. They usually excel in sports that are gravity-reduced like swimming or linear activities like biking and running.

Our computer age and increasingly litigious society has ensured that our children spend significantly more time sitting and inactive. Parents, teachers, and coaches alike refuse to push kids physically out of fear of injury or litigation. The reality is that most experts agree that more activity and not less is what's needed to prevent their loose joints from becoming painful joints. Because

they are starting at such a physical deficit, it requires a more methodical approach to introducing activity. This activity should be of varying intensities and durations with a frequency of at least 4-5 per week. Weight bearing exercise should be introduced later in the process after some foundation of strength and endurance has been established. Maintaining an active lifestyle will allow individuals diagnosed with joint hypermobility syndrome to live a pain-free and active life.



According to Dr. Nathan Hasson, a consultant in pediatric rheumatology at London's Portland Hospital and an expert in joint hypermobility, "A good 30 percent of us are more flexible than most. The difference is that our children's muscles are far weaker than those of any generation before." Past generations had muscles strong enough to have day-to-day control over the range of movement of their ligaments, avoiding the pain and injuries associated with hypermobility. "But modern children spend much more time indoors: they cycle and walk less, and sit more."

"You will have walked to school, cycled everywhere, played outside with your friends and had several hours of physical education per week, so you'd have had the strength to be able to control your joints in a way today's children simply can't. Being hypermobile wouldn't even have registered with you," says Dr. Hasson.

On the other side of the coin are individu-

als that are stiff jointed or have structural differences referred to as "retroversion" that prevent them from performing or assuming positions that a "hypermobile" individual could assume easily. Typically individuals that are stiff jointed respond better to weight bearing exercise and can accelerate and progress through weight training and dry-land programs at a quicker pace than hypermobile individuals.

People of varying ages have either retroverted hips or anteverted hips. Those that have retroverted hips find it very easy to sit in a cross-legged fashion on the floor. Those that have anteverted hips find it very difficult or nearly impossible to sit cross-legged and much prefer to sit in a "W" fashion. Each of these types of hip structure has both a benefit and a limitation.

In some ways the concept of "natural selection" does take place. It is rare to see a hypermobile individual become a championship power lifter, or to see a stiff jointed person become a champion gymnast. Two "X" factors are when our children realize what direction genetics as taken them and if they find out they are hypermobile after their body weight has passed their strength level. In this case, it will take a much longer and methodical process to acclimate back to weight bearing type exercise without becoming symptomatic. The earlier children are introduced to a variety of activities, the less likely it is that they will develop joint-related symptoms.

Ideally, it would be great to see physical education volume increasing in school curricula and not decreasing. At the very least, parents could make a concerted effort to get their children walking, cycling, swimming, and moving routinely rather than as an occasional activity.

Article by Dale Buchberger,
DC, PT, CSCS

Exercise of the Month: Ball Table



Ball Table start and end position (top), exercise position (bottom)

Ball tables are a great exercise for improving posture and for strengthening your glutes and core muscles. When added to your daily exercise routine, ball tables will help to prevent lower back and lower extremity injury.

Start by sitting tall on the ball with good posture and with your feet on the ground (as shown in the top photograph). Walk your feet forward (not shown) and lower your body onto the ball *without* using your

hands, all while rolling the ball up your back toward your head. Stop when you feel the ball between your shoulder blades and you are able to rest your head on the ball (as shown in the bottom photograph). Squeeze your glutes and draw your navel toward your spine without arching your back. Hold that position for 3-5 seconds. Then walk your feet backward and raise your body back to a completely seated position. All of the above constitutes one

repetition of this exercise! Perform 10 repetitions every day, never progressing to more than 20 repetitions.

Use caution if you don't feel stable on the ball. Have someone spot you, or perform close to a piece of furniture you can hold onto if needed until you can perform the exercise on your own.

Don't have an exercise ball to use? We sell various sizes here at APTS—just ask!

Individuals with hypermobile joints usually have difficulty with weight bearing exercises. They usually excel in sports that are gravity-reduced (swimming) or linear activities (biking and running). Typically individuals that are stiff-jointed respond better to weight bearing exercise and can accelerate and progress through weight training and dry-land programs at a quicker pace than hypermobile individuals.



What's Going on at APTS?

Ronak Patel is a Physical Therapist Assistant student from the newly-accredited Bryant and Stratton College. He is joining us here at Active PT Solutions for his first clinical internship every Friday morning for 12 weeks this summer. Shannon Donohoe is a Doctor of Physical Therapy student from Ithaca College who will be joining us for her first clinical internship for 8 weeks from June 4 until July 27. She will primarily be working with Tom and Carolyn, but you will see her around the clinic. Please make both Ronak and Shannon feel welcome and help us

help them learn about the wonderful world of physical therapy!

Dr. Buchberger has been chosen to be a member of the USA Triathlon medical staff for the Multi-Sport World Championship Festival in Odense, Denmark. He will be in Denmark from July 3-July 10. Having worked previously with USA Swimming (California), USA Bobsled (Germany), and multiple Summer World University Games (South Korea & Taiwan), he will now add Triathlon to his international experiences!

Active PT Solutions is sponsoring another Doubledays Community Night on Thursday, July 19. We have vouchers for free tickets available at the office for the game that night, which starts at 6:30 PM against the Mahoning Valley Scrapers. Vouchers will also be available at various retailers around Auburn. We will also have a booth with ponchos and koozies to give away at the game. If you're able to attend, stop by and say hi!

Active PT Solutions is also once again sponsoring the Downtown Auburn Mile on Friday, August 24. Start training now! Details to follow!

The Nine Lives of Dr. Buchberger

On Friday, June 22, Dale ended up in the emergency room at Auburn Community Hospital after being hit by a pickup truck (left) while walking home from work. The truck was turning left onto West Genesee Street from Dunning Ave, and Dale was in the crosswalk between Pepper's Liquor Store and Rite Aid. "The truck DID NOT slow down," said Dr. Buchberger. "I put my

hands out to stop myself and did a pirouette in the air." He landed on his back—at the very edge of Pepper's property in the west-bound lane—and luckily had a backpack on to cushion the fall.

So far, x-rays of the neck, elbows, hips, and ribs have all come back negative, and a CT scan of the head and neck was also negative. He has many

bruises and everything hurts but nothing is broken and he does not have a head injury!

Thank you to all of the emergency medical personnel, ER staff, and radiology staff for taking such great care of Dale!

The Buchberger family and staff of APTS are very grateful that Dale is here to tell the tale!



To Crossfit or Not To Crossfit



As a physical medicine healthcare provider, I see 5-10 patients a month with Crossfit injuries. I

entertain 5 times that number in questions about Crossfit between internet requests, office based requests and parents of young athletes that I coach. The general consensus is that you are all for Crossfit or you are against it. My opinion is matching crossfit to the person. I hope that this article will suit the Crossfit "disciples" and the Crossfit "bashers".

What is Crossfit? According to the Crossfit, Inc. Website: "CrossFit is the principal strength and conditioning program for many police academies and tactical operations teams, military special operations units, champion martial artists, and hundreds of other elite and professional athletes worldwide." And therein lies the problem. The majority of people that participate in Crossfit classes or at "boxes" are not high-level police, tactical, military or elite personnel. Your average "crossfit participant" is not preconditioned to participate in Crossfit. While elite personnel are preconditioned, they are not impervious to injury. Injuries sustained during Crossfit by elite personnel are considered a work-related hazard. Injuries sustained by the average person are a great inconvenience and expense.

So what's right with Crossfit? It provides an avenue for the general population to become active, lose weight, and regain their health. Crossfit can be motivating and provide a strong support network for all involved. In this sense, the general idea of increasing physical activity to improve

quality of life is a good thing.

What is wrong with Crossfit? As previously stated, the methods used in Crossfit workouts (for the most part) are not made for the general public that enters the program deconditioned. If anything, there should be a preconditioning phase to Crossfit that prepares the individual for the more advanced rigors of the program. Some of the exercises and how they are used are counter to safe and appropriate practices. As an example: performing Olympic style lifts for time, speed, and volume is an injury waiting to happen. Instead of performing a set of 10-20 Olympic lifts as fast as you can, you should think in terms of 10 sets of 1, performing each lift perfectly. If you have participated in or witnessed a Crossfit class, you honestly know that there is a variety of techniques, and very few are good. Premature fatigue is a primary reason for failing technique. How can this be improved and still incorporated into Crossfit with less risk of injury? First, teach the technique over weeks, not minutes. Then perform the drill within the context of its intent: speed and power, one time.

There are a large number of jerking type motions involved in Crossfit, such as close grip kettle bell swings and kipping pull-ups. If these are performed as described, they are all but guaranteed to cause shoulder issues to the point of requiring surgical repair. The most common injuries we see are labrum tears of the shoulder cartilage and rotator cuff tears. Close grip movements are tough enough on the shoulder, but performing them with ballistic movements will only compound the problem. Performing them with one arm at a time with a lighter kettle bell will compromise the shoulder less and still allow some high intensity work. Kipping pull-ups serve no real purpose. If you need to "kip" on a

pull-up then you should be using some sort of elastic assistance and concentrate on improving your technique.

These are only a few examples of potential and common Crossfit errors. There are ways to modify them to improve safety and reduce risk of injury. The idea of Crossfit is to get in shape and improve your quality of life. Why, then, follow a plan that increases the chance of injury? If you are doing the "workout of the day" (WOD) the same as everyone else in the class then there isn't much individualization to the program. If your instructor recognizes your needs are different from another classmate, then you have found a good instructor. If you are told to push through regardless of your symptoms, pain, or their relationship to the mechanism of the exercise, then you probably need a different, more knowledgeable instructor.

Exercise should be matched to the person based on starting level of conditioning, age, and body type. Crossfitters in their 40's and 50's will have some preexisting level of degenerative changes not just in their joints but also in their tendons. Exercising too aggressively too fast will surely bring out an injury. Younger individuals in their late 20's and early 30's commonly have poor stability systems usually exacerbated by the fast, jerking motions of the common Crossfit program. The key to a safe effective Crossfit program for the general population is knowledge and the willingness of the instructor to individualize the program based on morphologic and demographic indicators. If you choose to Crossfit, do so with caution.

Article by Dale Buchberger, DC, PT, CSCS

"CrossFit is the principal strength and conditioning program for many police academies and tactical operations teams, military special operations units, champion martial artists, and hundreds of other elite and professional athletes worldwide."

APTS Recipe Box: Flourless Paleo Hamburger Buns

These grain-free, fluffy hamburger buns are yeast-free and only take 5 minutes to prepare!

Ingredients

Dough: 3/4 cup cassava flour, 3 tbsp psyllium husk powder, 4 large eggs, 1/2 cup applesauce, 1 tsp baking powder, 1/2 teaspoon sea salt.

Toppings: egg wash (whip one egg), black sesame seeds (for sprinkling on top)

Instructions

1. Preheat oven to 400F. Line a baking sheet with parchment paper.
2. In a food processor, combine all the ingredients for the hamburger buns. Puree until the dough is smooth.
3. Divide the dough into four equal parts and shape into a round ball. If the dough is sticking, coat your hands in water and then shape the dough. Pat the round buns down into a dome shape. Brush the buns with egg wash

4. and then sprinkle with sesame seeds. Bake for about 22-25 minutes until golden brown.

Pair this bun with your favorite burger, sandwich meat, or even just butter or jam!

Source: <https://paleoglutenfree.com/recipes/5-minute-fluffy-flourless-paleo-hamburger-buns/>



Active P.T. Solutions

91 Columbus Street
Auburn, NY 13021

Phone: 315-515-3117

Fax: 315-515-3121

E-mail: cara@activeptsolutions.com

website: www.activeptsolutions.com

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!

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ACTIVE!

Nutrition 101: Testing for Celiac Disease

Testing for celiac disease can be tricky. First, there's different blood tests to pick from. Then there's the question of whether or not to undergo an intestinal biopsy, which was once considered the gold standard of celiac diagnosis. Even many healthcare providers are confused. Here are the three most common pitfalls and myths related to testing.

Step 1: Blood Tests Experts strongly recommend that you get tested for celiac disease before going gluten-free. There are 5 main blood tests. They all look for antibodies (some to yourself, some to gluten) in your blood that shouldn't be there if you don't have celiac. Because no single test is perfect, they're usually bundled into panels of 3 or more tests.

Step 2: Biopsy Celiac disease causes damage to the small intestine. This is best detected via biopsy, a tiny sample of tissue taken during an endoscopy. All US medical association guidelines mandate the biopsy in adults and children as part of the diagnostic process, even though some feel that today's blood tests are good enough. "Not only are blood tests imperfect, having any uncertainty about the celiac diagnosis may lead to doubt about strictly following the gluten-free diet over the long term," says Benjamin Lebwohl, MD, MS, a leading celiac researcher and gastroenterologist at the Celiac Disease Center at Columbia University. During the endoscopy, a biopsy should always be taken in at least 4 areas of the duodenum, including the bulb. This is critically important to ensure a proper diagnosis. Intestinal damage due to celiac disease can be patchy and therefore easily missed without multiple samples.

Optional Step 3: Genetic Test When the blood tests and the biopsy are inconclusive, or when a person is already on a gluten-free diet, the genetic test can be useful. This blood test (or cheek swab) looks for the genetic markers DQ2 and DQ8. If you don't have these markers, you can be almost certain you don't have celiac disease. Yet a positive result

does not mean you have celiac disease, since the markers are very common in the general population.

Optional Step 4: Skin Biopsy About 1 in 5 people with celiac disease have a blistering, intensely itchy skin rash known as dermatitis herpetiformis (DH). These celiac individuals may not have any gastrointestinal symptoms and up to 20% will have normal celiac blood tests and intestinal biopsy results. A skin biopsy by a knowledgeable dermatologist is the key tool in confirming DH. The biopsy must be taken from an area next to a lesion—not directly on a lesion—to look for the hallmark IgA deposits.

Common Pitfall 1: Going Gluten-Free Too Soon This is huge. When you go gluten-free, the number of celiac antibodies in your blood starts to decline and your intestinal tissue begins to heal. Depending on how long you've been gluten-free (the amount of time varies from person to person), testing will come back inconclusive or normal, even when you actually have celiac disease. If you're already gluten-free, a few weeks of steady gluten consumption may be enough for you to undergo a blood test. A recent study showed that after a 2-week gluten challenge (participants consumed 2 slices of bread a day for 2 weeks), lab abnormalities reappeared in the majority of celiacs.

Common Pitfall 2: False Negatives The results of celiac blood tests come back as false negatives in up to 10% of people who have celiac disease. Often this is due to a harmless condition called IgA deficiency, where the body doesn't make enough of the IgA antibody for IgA-based tests to be accurate, says Ritu Verma, MBChB, a pediatric gastroenterologist and director of the Center for Celiac Disease at the The Children's Hospital of Philadelphia. The solution is to be sure a total serum IgA test is part of your celiac panel. If you're low on IgA, other blood tests can be used to help determine if you have celiac disease. In some cases, doctors will go straight to the biopsy.

Common Pitfall 3: Unproven Tests Direct-to-consumer tests for celiac disease, such as stool kits and saliva tests, are now widely available but these tests aren't proven, validated, or FDA-approved. Celiac experts say that it's risky to rely on results from these tests since they can falsely show that you don't have celiac disease. Untreated celiac is associated with a number of serious health problems, including osteoporosis and even cancer. (There is not yet a validated test for non-celiac gluten sensitivity available to doctors or direct-to-consumers.)

Celiac Disease Myth 1: Celiac disease isn't very common, so testing is a waste of time. Celiac disease used to be considered rare, affecting less than one in 1,000 people. Now we know its incidence is on the rise and it affects about one in 100. Recent data shows 4 out of 5 Americans with celiac disease still don't know they have it.

Celiac Disease Myth 2: I've been tested once, so I don't need to be tested again. This misconception is common among family members of celiacs. They assume they're in the clear after one negative test result. The fact is that relatives need to periodically repeat testing while eating a gluten-containing diet. Research shows that celiac disease can develop at any age, even in people in their 80s and 90s.

Celiac Disease Myth 3: I feel better on the gluten-free diet, so there's no point in testing for celiac disease. You'll thank yourself down the road if you know whether or not you're dealing with celiac disease. The treatment for celiac disease is total gluten avoidance for life. That's not the case for everyone who feels better on a gluten-free diet. If you have celiac disease, it will also impact how your doctor monitors your health. You'll want to have family members tested too.

Article by Carolyn Collier, PTA

Source: https://www.glutenfreeandmore.com/issues/4_39/Testing-for-Celiac-Disease-4320-1.html