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

# **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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Sweet Potatoes vs. White Potatoes

# APTS Monthly

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# **Degenerative Disc Disease**

It is not uncommon for a patient to come in the office and state that they have been diagnosed with "degenerative disc disease" (or DDD) of either their neck or lower back.

Degenerative disc disease is not really a disease but rather a term used to describe the acceptable and age-related changes to the spinal intervertebral discs. The spinal intervertebral discs serve as shock absorbers between the bones (vertebrae) and ligaments of the spine and provide stability and flexibility while resisting high multidirectional forces.

Each disc from the neck to the lower back has two parts. A tough, dense outer layer called the *annulus fibrosus*.

The outer portion of this layer contains pain-sensitive nerves. If the disc tears in this area, it can become a source of back or neck pain. The inside is a soft, jelly-like core called the *nucleus pulposus*. If this nucleus leaks out and makes contact with the nerves of the outer layer of the disc they can stimulate pain in the specific region.

It is not uncommon for several conditions to coexist in the spine once the process of degenerative disc disease has begun. Osteoarthritis, or degenerative joint disease, is the breakdown of the cartilage that protects and cushions joints. A herniated disc is an abnormal bulge in the outer layer of the disc. This puts added stress on the spinal joints leading to osteoarthritis. As the arthritic spurs grow they begin to narrow the central spinal canal leading to *spinal stenosis*.

Because we are protein- and mechanical-based entities, this also means we are finite and subject to expiration. Consequently, as we age, our spinal discs gradually break down, or degenerate, resulting in degenerative disc disease. These age-related changes include dehydration of the spinal discs. This reduces the shock absorbing ability of the discs and leaves the spine less flexi-



ble. Loss of fluid also makes the disc thinner and narrows the distance between the vertebrae resulting in age-related height loss. As the disc fibers begin to degenerate, they weaken, allowing tiny tears to occur in the outer layer of the disc. The jelly-like material

inside the disc may be forced out through the tears in the annulus, causing the disc to bulge or rupture and produce disc fragments. A herniated disc may also occur from an acute injury such as a fall, motor vehicle accident, or lifting a heavy weight incorrectly. In this case, the degenerative process is given a head start by the acute trauma.

Degenerative disc disease may result in back or neck pain, but this varies from person to person. Many people have no pain, while others with the same amount of disc damage will have severe pain limiting their activities. Where the pain occurs depends on the location of the affected disc. A degenerated disc in the neck area may result in neck, arm, or hand pain, while a degenerated disc in the lower back may result in lower back, buttock, leg, or foot pain. The pain often gets worse with bending over, reaching overhead, or lifting and twisting.

The pain of degenerative disc disease may be stimulated by a severe injury such as a car accident, a minor injury such as a slip and fall, or a trivial activity such as bending over to pick up a pen. It may also start gradually for no known reason and worsen over time.

In the past, degenerative disc disease was diagnosed with a medical history and physical examination in combination with your age. Today a definitive diagnosis of degenerative disc disease is made with a combination of spinal x-rays and magnetic resonance imaging (MRI). An x-ray will show a narrowing of the discs with arthritic spurring off of the vertebrae. The MRI will show "signal changes" that are specific to the dehydration of the disc, or "desiccation".

Treatment depends on whether the damaged disc has resulted in other conditions, such as osteoarthritis, a herniated disc, or spinal stenosis. Physical therapy and exercises for strengthening and stretching the back are often recommended, and in some cases surgery may be recommended. Surgery for degenerative disc disease usually involves removing the damaged disc. In some cases, the bone is then permanently joined or fused to protect the spinal cord. In rare cases, an artificial disc may be used to replace the disc that is removed.

Nearly everyone shows some signs of wear and tear on the spinal discs as they age. Pain that is worse when sitting and gets worse when bending, lifting, or twisting can indicate degenerative disc disease. Pain may feel better with gentle movement like walking. Remember that symptoms may come and go, getting progressively worse with each episode. If pain, numbness, or tingling begins to travel into the arms or legs, you should seek the opinion of a healthcare provider.

> Article by Dale Buchberger, DC, PT, CSCS

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# **Exercise of the Month: Pelvic Tilt**

Pelvic tilt, start position (top), exercise position (bottom)

Pelvic tilts are often recommended for developing support for the low back, abdominals, and sacroiliac joints. They are great for low back problems due to poor posture and muscle atrophy, and they provide a starting point for spinal stabilization exercise programs.

Lie on your back with your knees bent, feet flat

on the floor. Tilt your pelvis up so that the small of your back flattens out to the floor. Hold 2 seconds and relax. Perform 10-12 repetitions twice a day to keep the low back stretched and strong.

For low back pain symptoms, we recommend lying on your stomach with an ice pack on your back for 15 minutes, and

then performing 10 repetitions of pelvic tilts to prevent the back from "stiffening up". As always, if your low back pain persists, make an appointment for an evaluation with your doctor and/or physical therapist.

It is with sadness that we announce the resignation of Cara Cuthbert. She is leaving APTS on February 1st to take care of her four children. Linda Schattinger will take over the role of Associate Director. Please wish Cara well, and welcome Linda to her new position!

# **Another Way to Prevent Falls**



In 2014, more than one out of four older adults living at home reported a fall.

What can lower the risk?

The U.S. Preventive Services Task Force examined 21 trials on exercise and seven trials on vitamin D. Among its conclusions: exercise lowered the risk of a fall with injuries by 19 percent. In most studies, vitamin D did not prevent falls, and in one, a large yearly dose (500,000 IU) actually increased the risk of falls by 15 percent.

A typical exercise program consisted of balance, gait, and functional training (for example, to stand up easily) three

times a week.

So what should you do? Look for balance, strength, and flexibility exercises at the National Institute on Aging's Go4Life website (go4life.nia.nih.gov). And don't take high doses of vitamin D to prevent falls.

Source: JAMA 319: 1696, 1705, 2018. Nutrition Action Healthletter, July/August 2018.

# **APTS Celebrates 4 Years on Columbus Street!**

Active Physical Therapy Solutions has been at home on 91 Columbus Street for four years on January 5, 2019! Our new location has served us well the past four years and we have been busy! Thanks to all of you for your patronage, support, and referrals! We look forward to serving this

community for years to come. Please let us know if we can be of service to you in any way in 2019, whether it be physical therapy or chiropractic care, speaking or community service events, or student shadowing!



**APTS** donated a very large number of items to the **Calvary Food Pantry this** Christmas and they were very grateful for all of the donations. Thank you to all of those who contributed!

APTS MONTHLY

# Not All Cardio Equipment is Safe

Just because most cardiovascular equipment is low-impact doesn't mean they are all injury-proof. There all injury-proof. There all of cardiovascular equipment including treadmill, stair stepper,

elliptical, upright stationary bike, recumbent stationary bike, rowing machine, etc. Each one has its benefits and its disadvantages. Your choice of cardiovascular equipment should take into account any particular medical problem that you may be dealing with.

The first and most prominent disadvantage of all cardiovascular equipment is excessive cost. If you want to bring cardiovascular equipment into your home it will be an expensive proposition. When it comes to cardiovascular equipment you do get what you pay for, but that doesn't mean you can't find a deal if you look!

Stationary bikes are a convenient way to develop cardiovascular fitness and lose weight. They are a good choice if you have injuries to the hip, knee, ankle, or foot. In order to lose weight, you will need to either cycle for an extended period of time or increase the intensity of the workout. If you have back pain, the upright bike may actually be better than the recumbent bike. Like all bicycles, the seat adjustment is key to the comfort of the workout. Fortunately, most upright and recumbent bikes have easily adjustable seats. Upright stationary bikes work well as a cardiovascular alternative to running if you have a variety of leg or lower back injuries.

Treadmills provide an avenue to perform weight-bearing cardiovascular exercise year-round in a controlled environment. Walking or running on a treadmill is more forgiving to the joints of the lower extremities than walking or running on the street. However, if you have lower back pain, you may want to avoid long periods of inclined running or walking. Instead perform short intervals of inclined walking or running with longer periods of flat walking or running. If you are planning on running a race, you may want to intermix outside running with treadmill running. The tread on the belt of the treadmill helps your legs through the gait cycle; therefore your hamstring muscles on the back of your thigh don't work as hard. Training on treadmill and racing outside can result in a leg injury.

Elliptical machines have become very popular because they afford you the opportunity to exercise your arms and legs in a non-weight-bearing method. If you have hip, knee, or ankle pain, the elliptical can be a reasonable method to maintain cardiovascular fitness. If you have any type of back problem, the elliptical can aggravate the pain. While the elliptical eliminates any pounding force, it increases the rotational and shear forces through the lower back. The rapid rotation causes a wringing mechanism that can further injure the discs of the lower back.

Stair steppers can be a good choice for cardiovascular exercise and weight loss. They are low impact and can work the hips, core, and balance. If you have good enough balance that you can use the stepper without using the handles, your upper body will get a work out as well. However, if you have excessive degeneration in the hips or knees, this may not be an option. If you have a back problem but can maintain an upright posture and avoid leaning on the handrails, this may be a low impact option for your cardiovascular needs.

Rowing machines can provide an effective total body workout. While rowing machines also provide a low impact workout, there are several physical requirements that you must possess in order to use a rowing machine effectively. First, you need to be able to sit for a lengthy period of time. If you have back trouble with sitting, this may not work for you. Good hip flexibility is necessary since your legs come very close to your chest while using a rowing machine. If you have any appreciable degeneration and limited hip flexion, the rowing machine may not be the device for you. If you have chronic shoulder pain, the rower may increase your shoulder pain due to overuse.

Most of the cardiovascular machines mentioned have two things in common: they are generally expensive to bring into the home and they can all be monotonous to perform for a long period of time. Keep in mind that if you have more than one problem area you need to take these into account when choosing your method of cardiovascular exercise. Speaking to the healthcare provider that you trust the most with these types of decisions before undertaking this type of exercise program is worth the time. If you are recovering from a surgery, make sure you ask the surgeon and/or physical therapist if you have reached a stage of recovery allowing return to cardiovascular exercise.

> Article by Dale Buchberger, DC, PT, CSCS

# While the elliptical eliminates any pounding force, it increases the rotational and shear forces through the lower back. The rapid rotation causes a wringing mechanism that can further injure the discs of the lower back.

**APTS Recipe Box: Sweet Potato Black Bean Burger** 

Why bother with processed, packaged veggie burgers when you can make your own? These hearty burgers are great on the grill or prepared in the pan. Serve on a bed of greens with a tomato slice and a sliver of avocado for a delicious alternative to the traditional bun.

**Ingredients:** I cup cooked, mashed sweet potato; I 15-1/2 ounce can reduced sodium black beans, drained and rinsed; I/2 cup reduced sodium canned corn, drained; I/4 cup quick cooking oats; I egg; I tsp smoked paprika; I tsp garlic powder; 3/4 tsp onion powder; I/4 tsp salt; I/4 tsp black pepper; cooking spray. **Directions:** If starting with raw sweet potatoes, peel and add to boiling water. Boil for 20 minutes or until tender. Drain and mash sweet potatoes. Reserve I cup of mashed sweet potato for recipe. In a large mixing bowl, mash black beans and sweet potatoes together. Add remaining ingredients and mix with a spoon. Form into 6 patties. Spray a nonstick skillet with cooking spray and heat on medium low. Cook burgers for 5 minutes, flip, and cook 3-4 minutes more or until golden brown.

### Nutrition information

**Per serving:** 160 calories (18 from fat), 2 g total fat (0 g saturated fat), 31 mg cholesterol, 285 mg sodium, 27 g carbohydrates, 6 g fiber, 5 g sugar, 7 g protein.

**Exchanges:** 1-1/2 starch, I vegetable, 1/2 meat (All values are approximate. When an optional or additional ingredient is offered, exchange values may change.)

Source: https://www.tops.org/tops/TOPS/TOPS/ FeaturedArticles/recipe-of-the-month-sweet-potato-black-bean -burger.aspx



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 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!

Newsletter Edited by Carolyn B. Collier, PTA

# Nutrition 101: Sweet Potatoes vs. White Potatoes

Potatoes are known as America's favorite vegetable. They're loved for their versatility, their compatibility with other foods, and their ability to be transformed into two of America's favorite junk foods. Although sweet potatoes aren't as popular, they're perceived to be a healthier alternative to white potatoes because of their lower calorie and carb count. But are sweet potatoes really healthier than white potatoes?

According to the USDA, one medium baked sweet potato with skin contains 103 calories, 2.29 grams of protein, 0.27 grams of fat, 23.6 grams of carbohydrates, 3.8 grams of fiber, and 7.39 grams of sugar. Just one serving will give you more than 400 percent of your daily vitamin A requirement, It is also high in vitamins C and B, potassium, and choline.

A medium baked white potato with skin, on the other hand, contains 115 calories, 2.49 grams of protein, 0.06 grams of fat, 26.71 grams of carbohydrates, 4.6 grams of fiber, and 0.81 grams of sugar. It is also rich in vitamins C and B as well as potassium.

While white potatoes are lower in fat and sugar, sweet potatoes have fewer carbs and calories. And while sweet potatoes contain more vitamin A and vitamin C, white potatoes contain more protein and fiber.

You may have heard that eating white potatoes may cause you to gain weight or negatively affect your blood sugar levels, but according to medical experts, it's how you eat them that matters the most. White potatoes can be cooked in different ways, but the American diet is strongly defined by its love for fried potatoes, which makes them a bad choice for people who are looking to eat healthier. Some studies show that those who eat more white potatoes, no matter how they're cooked, have a higher risk of type 2 diabetes. Those who eat French fries increase their type 2 diabetes risk by an additional 19 percent. If you eat them baked or broiled, however, and if you avoid fattening toppings such as cheese, sour cream, or bacon, the benefits of potatoes can outweigh the risks. Some good reasons to put white potatoes back into your diet if you've been avoiding them:

 They keep you satiated longer than other complex carbs. One study reports that participants were more satisfied consuming potatoes with



meat than with rice or pasta. It also resulted in a lower calorie intake overall for the participants.

 They're a good source of resistant starch. When digested, white potatoes pass through the large intestine where it can feed on the good bacteria in your gut. This is beneficial for blood sugar control and insulin sensitivity.

• They provide antioxidants. White potatoes are a good source of antioxidants such as flavonoids, carotenoids, and phenolic acids, which can neutralize free radicals and prevent cancer, heart disease, and other chronic conditions.

Sweet potatoes, on the other hand, are a great choice for diabetics or for those at risk of developing diabetes because of their low-to-medium glycemic index (depending on whether they're eaten with the skin on or off), which means they won't make your blood sugar levels spike as much as white potatoes. Some other reasons to choose sweet potatoes:

- They're a good source of manganese. This mineral is good for bone development, metabolism, and vitamin absorption.
- They're loaded with magnesium, which is known as the "great relaxation mineral". Magnesium can

help with blood sugar management, blood pressure, and metabolism.

 They fight inflammation. In addition to the abundant amount of vitamin A found in the orange-fleshed varieties, the purple sweet potato varieties are a good source of anthocyanin, which contains anti-inflammatory properties.

In the battle of sweet potatoes vs. white potatoes, there doesn't seem to be a clear winner. Both veggies have their pros and cons, but it all comes down to your preference in taste and your individual health goals. What appears to be most important is that they're consumed in moderation. It's best to find healthy ways to incorporate both of them into your diet and discuss with your doctor your individual concerns, particularly if you're diabetic. Some tips you can use at home and while eating out

to make sure your potatoes are both delicious and healthy:

- Avoid frying them. Steaming, boiling, or roasting potatoes will result in a lower calorie and fat content than if you eat them fried.
- Choose healthier toppings. Instead of loading them up with butter, bacon, cheddar cheese, and sour cream, try topping your potatoes with Greek yogurt, broccoli, honey, or vegetable chili.
- Avoid processed potato products. Potato chips and instant mashed potatoes often contain too much salt, fat, and/or preservatives.
- Leave the skins on. Not only do they add flavor to your potato dishes, the skins also contain additional fiber and other nutrients.

## Article by Carolyn Collier, PTA

Source: https://universityhealthnews.com/daily/nutrition/ sweet-potatoes-vs-potatoes