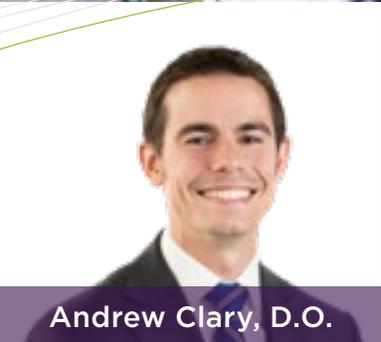




# The Younger You

Monthly newsletter about Wellness, Science, and a Physician-Led Revolution



**Andrew Clary, D.O.**

Dr. Clary has always had special interest in coaching, educating, and speaking about nutrition as well as lifestyle. He has a professional interest and training in both spine care and nutrition (receiving his Bachelor of Science in Applied Nutrition before medical school) and continues a lifelong journey of learning. He is always looking for ways to inspire, grow, and benefit others with even small daily changes.



**Anthony Sterk, PA-C**

Anthony Sterk is a hardworking, meticulous, and dedicated provider. He is a Physician Assistant and has been working in orthopedic spine specialty the past four years. He has a drive to continue learning new and innovative ways to help patients achieve their goals. His passions include running, hiking outdoors, and spending time with his family.

## WHAT IS CORN SYRUP?

“Watch out for the high-fructose corn syrup!” is something you’ve heard a friend or news report say. Packaging has gotten smarter and ingredients on packaging have changed. Now companies can gladly say “no high-fructose corn syrup.” You feel great, are about to take a bite of a granola bar, then notice it says “corn syrup” as the first ingredient! There is a difference, and given the ingredient is so commonly used, you should know what you’re getting yourself into.

High-fructose corn syrup (HFCS) was called “generally ... safe” in 1976 by the FDA. HFCS was developed to fatten livestock (and it worked!) and prevent a hormone called leptin, which tells your body you feel “full,” from being released.

It’s gotten a lot of bad publicity and for good reason. It is half fructose (yes, the part that makes fruit sweet) and half glucose. Glucose is what makes blood sugar, but unfortunately fructose in high doses decreases your insulin release. The result? More glucose in your system and a weakening of the body’s ability to do anything about it.

If you took corn and milled it with some heat and small amounts of enzyme, you’d get maltose. Maltose is actually not that bad for you if you stop there. If you see “high-maltose corn syrup” as the sweetener in a product, I actually think it’s a better choice than “cane sugar” or even honey.

Honey is interesting, by the way. It has phytonutrients, which are antioxidants (some argue that they decrease cancer risk) and immune boosting. Unfortunately, when processed (even cooked in granola bars, I think), it loses those magical benefits. As a sweetener, it’s also half fructose and half glucose similar to HFCS.

We discussed how maltose isn’t that bad, but if you put it through another

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**What Is Corn Syrup?, BMI and Back Pain, How to Sit, Acupuncture, Regenerative Medicine**

processing cycle with heat and enzyme, you get high-fructose corn syrup.

Why is corn syrup better than HFCS?

- » Corn syrup is bulkier and not as sweet
- » It’s less processed
- » No fructose to mess with satiety
- » Won’t lead to a fatty liver like HFCS

Long story short, I’m going to put my foot in the sand and say corn syrup (especially high-maltose) would be my preferred sweetener if you’re deciding between products. If you’re cooking and need a sweetener, I do think honey is great when not cooked or processed too much. Unfortunately, we can’t blame HFCS as the only evil sweetener. In Europe and Australia, they barely have any HFCS (they instead use sucrose, which is half fructose) and still have terrible rising rates of obesity. Fundamentally, whole food, plant-based diets and avoiding an overly processed diet would be my ultimate recommendation.

## BMI AND BACK PAIN

In caring for patients with spine and musculoskeletal pain, one of the topics that arises is if being overweight puts patients at an increased risk for low back pain. In 2018, the percentage of adults in America considered obese was 42.4, which is over 10 percent higher than the year 2000. An article from *Spine* in June 2018 showed the prevalence of low back pain was significantly higher in



**Steve Stulc, D.O.**

Dr. Stulc is a PM&R (physical medicine and rehabilitation) physician with added training in pain medicine. His practice focuses on treating spine and musculoskeletal conditions using a multifaceted approach, with an added interest in therapeutic exercise and regenerative injection therapy options. Outside of medicine, he enjoys the outdoors and spending time with his family.



**Dr. Clary's Team**

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obese patients. In this study, 72.8 percent of obese patients in this study endured low back pain, and the conclusion was that elevated BMI (a number that can be calculated easily online) is strongly associated with increased cases of low back pain. Other studies have demonstrated similar conclusions. The biggest misconception I see in medical practice is that patients believe that vigorous exercise is the only way to lose weight. While exercise is part of a healthy lifestyle, weight loss often comes down to diet *and* nutrition. One of the biggest barriers to weight loss is the overconsumption of sugar (which is also pro-inflammatory) and other simple carbohydrates typically found in processed foods, sugary beverages, white breads, and baked goods. If you are interested in weight loss, talk with your health care provider; presently, there are numerous professional resources available.

—**Steve Stulc, D.O.**

### HOW TO SIT

Many of us find ourselves sitting several hours every day. Prolonged sitting can lead to poor posturing and eventually chronic strain of the neck and low back. I recommend that you get up and walk around every hour throughout the day. One type of posture causing low back strain is “sacral sitting,” in which you sit on your hips or buttock, stressing your discs and ultimately forcing you to lean your head forward. This will lead to premature degeneration of cervical discs. Use one or two pillows at the low back for lumbar support and pull your shoulder blades together while using chin tucks to help keep the spine aligned. Frequent checks and being mindful of your body will go a long way to improve your durability and spine health.

—**Anthony Sterk, PA-C**

### ACUPUNCTURE

Research has shown that acupuncture is an effective pain treatment from head to toe. It raises endorphins, decreases inflammation, and relaxes muscles. It also can increase blood flow to promote healing.

Acupuncture developed over 3,000 years ago in China as a way to stimulate the body’s innate healing system and has been refined quite a bit over the centuries. We use it to direct both the central and peripheral nervous system. This improves the body’s ability to limit pain, improve sleep, and increase energy. Acupuncture also decreases migraines and improves digestion, so the uses are quite diverse.

It will take a series of treatments to provide lasting relief, and it’s not uncommon to need six to eight sessions to stimulate the healing response. The longer you have had the pain, typically the longer the treatment course.

*Thanks to Selby Acupuncture for contributing to our newsletter. I think they’re the best in the region when looking for alternative treatments!*

### REGENERATIVE MEDICINE—SCAFFOLDING

Scaffolding is a hot topic right now in regenerative and stem cell therapy. Specifically we wonder: can we put something down before adding the platelet-rich plasma or stem cells that will help them “stick” better or promote more growth?

As you may know, it is illegal in the U.S. to do more than “minimally manipulate” fat cells to use in a stem cell therapy. I do think there is a lot of potential in the angiogenic (they make blood vessels) factors of these fat cells. Unfortunately, until there are consistent results showing that this fat helps facilitate healing, it’s still a pie-in-the-sky option in our practice.

Many companies are creating “scaffolding” products from mostly silk or bioengineered sources that have varying pore sizes, strengths, and additives. Fortunately, billions of dollars’ worth of research are being done to try and optimize the body’s healing potential.

We know for certain diagnoses like discogenic back pain, regenerative medicine works great, yet we are always working to improve our toolbox. The next five to ten years will give us many more options to brainstorm ways to help our patients. To date, we have had great success treating everything from multiple sclerosis to osteoporosis, and so we are very excited about the future.