



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 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 STEVIA (FAKE SUGAR)?

I read a label for a fruit cup my son was eating the other day and saw it was "naturally sweetened." I thought that meant fruit juice because it's a fruit cup, right? Well, one of the primary ingredients is stevia leaf extract. This substance is a sugar alcohol, which gives it a chemical makeup that allows it to activate "sweet" receptors in your mouth. You may have seen sugar-free gum has another naturally occurring sugar alcohol, xylitol, which has been around a long time. They have zero calories because they're not carbohydrates.

Stevia leaf is a naturally occurring plant that can be dissolved in a factory and become a sweetener in many commercially available foods. There are both good and bad characteristics with this substance. Let's (always) start with the good: It doesn't cause tooth decay like traditional sugar and it does not directly raise insulin levels (high insulin levels are argued to lead to diabetes). It also can make something sweeter than previous. (Again, are we that hungry for sweets that fruit in a cup isn't good enough without stevia leaf?)

I did some literature review and did confirm that routine consumption of zero-calorie sweeteners, like stevia, actually *increased* body weight and waist circumference over time in some large group studies. I also saw that replacing this sweetener for traditional sugar does NOT decrease your risk of diabetes. One of my idols, Jack LaLanne (yea, the guy who died at age 96 after swimming for two straight hours that morning) always advocated whole foods and ingredients and I would start there.

Next newsletter topic: Why You Need Carbs This Issue SEPTEMBER-OCTOBER 2020 What is Stevia?, The Age of Stem Cells, Can PT Help a Herniated Disc?, Surgical Indications, and VR

THE AGE OF STEM CELLS

In our practice, we see the gamut of regenerative medicine candidates. This type of therapy is great for certain forms of arthritis and conditions within the spine that are traditionally hard to treat otherwise (even with surgery).

One question we're often asked: "Aren't my cells less potent or of lower quality given that I'm older now?"

Interestingly, there was a large study released within the past few years that studied this exact point of the efficacy of age and cell quality in mesenchymal cells (the cells used from the bone marrow that are "pluripotent"—that is, those that can "become" things). The study proved that it did not actually matter how old you are!

So long as effective techniques are used to draw the cells, regenerative medicine is actually *age independent* for the sake of the cell quality. Apparently those progenitor cells in the bone marrow stay fresh for our entire lifetime.

If we're treating someone who's 20 for a discogenic pain component versus a patient who is 75 with knee grade 3 osteoarthritis, we have optimism that we aren't limited when using their cells to try to heal their pathology.



Dr. Clary's Team

(651) 968-5211

Caity DeWitt, DPT

Caity is a physical therapist specializing in spine care and orthopedic injuries. She has a passion for connecting and collaborating with her patients so they can meet their goals and achieve a happier, healthier lifestyle.

She strives to be a lifelong learner and continuously stays up to date on new treatments and techniques so that she can best help her patients.

CAN PT HELP A HERNIATED DISC?

Most of the time, a lumbar disc herniation is not a sentence for spine surgery.

By age 20, it's estimated that 30% of people will have one, and they are most often not symptomatic.

There are some excellent studies showing that a combination of therapy with an epidural steroid injection will have excellent before and after results to decrease pain and improve the appearance of the disc.

Fortunately, physical therapy can help adjust the mechanics of a disc to reduce pain and increase function. Specifically, PT focuses on core and hip strengthening and stretching programs to take pressure off of the disc and the spine.

Our physical therapists will perform a thorough examination on you and determine the best route of action to address your needs. And we'll give you a home exercise program to work on.

-Caity DeWitt, DPT

SURGICAL INDICATIONS

We are asked nearly every day by patients, "When do I need to start thinking about spine surgery?" There are numerous indications for spine surgery but to keep things simple, spine surgery on the neck or low back is not done for neck or low back pain. Instead, surgery is used to treat nerve symptoms, i.e., leg or arm pain. Surgery is indicated when a person develops radiculopathy, or irritation of a nerve root. This most commonly occurs from a disc herniation or from chronic nerve narrowing such as stenosis. Emergency indications for spine surgery include muscle weakness, such as a foot drop, which signifies damage to the nerve. Simple surgical procedures include decompression, or taking pressure off of the spinal nerves or cord, to relieve the leg or arm pain. In some

cases, fusions are needed to stabilize segments with instability, such as with a spondylolisthesis or slipped segment. Fortunately, in most instances surgery can be avoided.

-Anthony Sterk, PA-C

TECH IN MEDICINE

An exciting new field in tech right now is virtual reality. There are a few new terms that are being thrown around: virtual reality ("VR," being immersed in 360 panoramic video and audio) and augmented reality ("AR," think terminator seeing the world with superimposed graphics and analytics).

With this COVID pandemic, many of us are forced to think creatively. (Has medicine ever been progressive before?) Most practices are offering some form of telehealth video conference visit for patients, but is using video on a phone or computer really that shocking? It's a shame it took this long to provide this resource consistently, but it's a welcome addition to healthcare.

I think of these great personalities running wonderful companies— like Bob Iger over at Disney, who tied together Pixar, Disney, Lucasfilms, and Marvel and keeps evolving. Disney took a \$100 million gamble on virtual reality and lost.

I see virtual reality as a big part of healthcare in the future in the realm of behavioral science and therapy. Imagine if you were finished with your doctor visit and when I step out to get the nurse, you can watch an in-person prerecorded video on a comfortable headset with a therapist/nutritionist/expert in view giving you the pertinent home regimen before your follow-up visit?

I'd love to pose such questions and get feedback at some point from you.

More to come.