The Secrets to Avoiding Shoulder Injury

When I was actively seeing patients, shoulder problems were among the most difficult issues to treat. Correcting back, hip, neck, knee, ankle, and other joint problems were a breeze in comparison. The shoulder joint is functionally complex. To make matters worse, there seems to be a total lack of understanding of how this multi-joint actually works. This helps explain why there has been such a surge in shoulder surgeries in the past few decades.

Between 1996 and 2006, the volume of shoulder rotator cuff repairs increased 141 percent. Most procedures are now done arthroscopically instead of opening the entire joint. During this same time period, arthroscopic procedures on the shoulder increased by 600 percent and open surgical repairs increased by 34 percent.

Total and partial shoulder replacements have skyrocketed. Loyola University Medical Center performed 10 times more shoulder replacements in 2015 than in 2010.

Surgeons feel one of the only reasons shoulder replacements have not yet become as popular as knee and hip replacements is a lack of awareness. Patients haven’t been informed of the potential benefits. That’s starting to change, though, as aging baby boomers are seeking the surgery to relieve pain and help restore function to their arthritic shoulders.

Osteoarthritis (“wear and tear” arthritis) is the primary diagnosis for most shoulder problems, and the reason for all these replacements. Last month I explained how it is absolutely essential to move your joints through their full range of motion every day to help keep the joint cartilage healthy. When the cartilage doesn’t go through its full range of motion regularly, it doesn’t get the right nutrients and waste material isn’t effectively removed, so it starts to deteriorate. Calcium and other minerals begin to accumulate at the edges of the damaged cartilage, which is the telltale sign of osteoarthritis.

This is exactly what is happening in the shoulder joint. But it’s only part of the story. To understand the deterioration process and how to deal with or prevent shoulder problems, it helps to know a little bit about the anatomy of the shoulder joint.

The Anatomy of the Shoulder

The following image is how a shoulder joint is depicted to most patients.

The shoulder joint is referred to as a ball-and-socket joint. The ball is the upper part of the arm bone (humerus) and the socket is part of the shoulder blade (scapula). The ball is held in place by ligaments and by the rotator cuff tendons. The rotator cuff muscles begin on the shoulder blade and then turn into tendons, which attach to the humerus.

When the cartilage on the ball and socket begin to roughen and deteriorate from either injury or osteoarthritis, you can experience bone rubbing on bone within the
shoulder joint. If you have this type of pain, arthritis, and restricted range of motion, it eventually leads to shoulder replacement. That’s the current dogma of conventional medicine. Once these types of ideas are adopted, they are accepted without question. And that has been the case for a while—at least until an orthopedic surgeon named Dr. John Kirsch came along.

Dr. Kirsch didn’t subscribe to the current belief that shoulder problems can only be corrected through surgery. He took a closer look at the functional anatomy of the shoulder, and what he discovered is amazing. It’s the missing key to preventing and reversing shoulder problems.

Thanks to Dr. Kirsch, I’m going to show you steps you can take right now to protect your shoulder joints, get rid of shoulder pain and, most importantly, avoid having to undergo shoulder surgery or replacement.

Very few doctors in any specialty are even aware of this information. None of us were taught this in our physiology or anatomy classes, and it’s still not being taught today. Why? For one, Dr. Kirsch’s findings don’t fit in with conventional medicine and therapies. And two, there’s no money to be made from his discoveries.

Sound familiar? Years of conventional shoulder therapy along with painkillers and anti-inflammatory drugs translate into thousands of dollars.

But a shoulder replacement promises to be the next goldmine in joint replacement surgery, right behind hips and knees. Shoulder replacement currently runs around $20,000, plus the cost of more drugs and months of physical therapy.

The cost of Dr. Kirsch’s technique? Nothing. $0.

If you take a closer look at the shoulder illustration on page 1, you’ll see there’s a slightly hook-shaped, bony extension of the shoulder blade that extends out over the top of the shoulder joint. It is called the acromion process. The acromion process is the highest point of your shoulder. It serves as the attachment point for part of the deltoid muscle, which helps you raise your arm horizontally.

By studying numerous CT scans, Dr. Kirsch found that when our arms are raised fully overhead (as they would be if we were hanging from a set of monkey bars), the acromion process and upper humerus form a second joint in the shoulder. He called it the acromio-humeral joint, or the “part-time joint.” It is called that because the joint is only engaged with overhead arm activity or while hanging. Maintaining this “part-time joint” is the key to preserving and/or restoring the function and health of your shoulder. Neglecting this joint directly results in the chain of events that leads to shoulder problems and eventually surgery.

Following are the three factors that lead to non-traumatic shoulder problems, and the specific steps you can take to counteract them.

**Factor #1: Abnormal Bone Remodeling**

Along with gravity, the weight of your arm is constantly pulling down on your shoulder—or more specifically, on the acromion process.

Bone is living tissue and it is constantly remodeling itself based on the stress it receives. Pressure applied to bone tissue creates piezoelectricity within the tissue. This micro-current electricity stimulates bone cells to remodel to counteract the stress. Orthodontists rely on this principle when they apply pressure with braces to straighten crooked teeth.

The weight of the arm (average weight 8 lbs) hanging from the shoulder over decades causes the acromion process to gradually bend and grow downward. This

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Dr. Williams works with Healthy Directions, LLC to develop his unique formulations that supply many of the hard-to-find nutrients he recommends. Dr. Williams is compensated on the sales of these nutritional supplements and health products, which allows him to continue devoting his life to worldwide research and the development of innovative, effective health solutions.
alternatives. If you go for conventional treatment, cortisone shots might be used to stem the inflammation. While they may seem to work like a miracle, they provide only temporary relief and need to be repeated. In the end, they actually contribute to additional fibrosis and chronic joint problems.

Since the underlying problem of too little space in the joint area hasn’t been addressed, the rotator cuff tendons continue to get “squeezed.”

The chronic inflammation progresses to fibrosis and tendonitis. The little lubricating sack, the bursa, gets squeezed and inflated (bursitis). The sequence of events is quite predictable: injury, pain, chronic inflammation, loss of use/motion, calcification, arthritis, bone on bone friction, and finally, surgery.

It doesn’t have to be this way. Most often the underlying problem stems from two things: the anatomy of the shoulder, which hasn’t changed since the beginning of time, and our lifestyles, which have.

Let’s Hang

The anatomy of the human shoulder is almost identical to that of the gibbon. As a result, humans and some gibbons (approximately 20 species of the smaller apes) have the unique ability in the animal world to brachiate—move by using the arms to swing from branch to branch. It’s a rare talent in the animal kingdom.

Like these apes, humans are able to brachiate because we have the ability to grasp with our hands, and our shoulders allow our arms to extend overhead and effectively rotate in that position.

Most mammals’ shoulders are located on the sides of their deep, narrow rib cages (like a cat or a dog). This severely limits the range of motion of their arms. While it makes them more stable on all fours, they can’t move their arms out very far to the side (or too far to the rear). As a result, as much as your pets may love you, they will never be able to hug you.

I’m sure like many of you, when I was young, I used to hang from the monkey bars on my school playground. There were also jungle gyms to swing and climb on. I truly believe there’s an innate urge in children to climb and hang whenever possible. The smallest infants even enjoy it.

But hanging is not just fun. Dr. Kirsch discovered that it is one of the keys to avoiding and correcting shoulder problems.

As I explained earlier, gravity remodels the bone that makes up the acromion process. With age, it starts to bend downward and become hook-shaped, leading to impingement of the rotator cuff tendons and the eventual destruction of the shoulder joint. Hanging gradually reverses that process and makes more room for the rotator cuff tendons.
**Non-Dairy Fermented Foods**

**Question:** I know you recommend eating fermented foods like kefir, yogurt, and sauerkraut. Unfortunately, I can’t consume dairy products. Are there other non-dairy probiotic-rich foods you can suggest, besides sauerkraut? — Jean D., Fargo, ND

**Answer:** You’re right, I love fermented foods, and sauerkraut is one of my all-time favorites. Fortunately, you can make a few “variations” of sauerkraut. For instance, kimchi (from Korea) utilizes garlic, ginger, and chilies to spice things up. And in parts of Germany and Austria, you can find their version of sauerkraut called sauerbruben (acid beets or sour turnips). It’s made just like sauerkraut except you use turnips. I haven’t made it in a while, but it’s really good and tastes similar to sauerkraut with just a hint of horseradish.

During my Central American travels, I was fortunate enough to encounter curtido, a fermented relish similar to sauerkraut that contains cabbage, carrots, onions, jalapeno peppers, and oregano. It’s like a spicy coleslaw. I first encountered curtido in El Salvador and parts of Honduras, where it is added to thick corn tortillas (pupusas) along with pork, cheese, and beans. And it’s hard to beat lengua de res (beef tongue) with sautéed onions, rice, and curtido.

**Fermented Beverages**

Although I typically drink the milk form of kefir, you can make water kefir with unchlorinated water, kefir grains, and a little sugar. (There’s no need to worry about the sugar in this case. It simply feeds the kefir grains and gets transformed in the fermentation process.)

The origin of water kefir is not well known since it shows up in so many cultures around the world. From my research, I suspect it probably started in either Russia or Mexico.

Russians live in some of the most hostile climates in Eurasia and have used fermentation for centuries. In Mexico, the bacteria and yeasts, which create the tibicos culture used to make fermented beverages like water kefir, actually grow on the pads of the prickly pear cactus.

Kombucha and ginger beer are other dairy-free, probiotic-rich fermented drinks. You can make your own or some of the larger health food stores now sell these “live” drinks.

If you have a little spare time and a starter culture, you can make all kinds of great fermented drinks. I’ve been getting my cultures from Cultures For Health (culturesforhealth.com) for quite some time. On their site, they have a wealth of information and instructional videos on how to make everything from kombucha and kefir to sourdough.

**Fermented Vegetables**

Most commercially sold pickles and fermented vegetables don’t contain beneficial strains of bacteria. If they’re sitting on the grocery shelf at room temperature, they don’t have any bacteria in them. To remain stable at room temperature, they have been pasteurized to kill any bacteria. You’ll either have to find a fermented vegetable product in the refrigerated section with a label that says “contains live active cultures” or something similar. Even then, it’s impossible to tell if the cultures are still living at the time of purchase.

The best solution is to ferment vegetables yourself. Instead of using vinegar to pickle vegetables, you can use a salt brine, which will discourage pathogenic bacteria and mold spores from growing, and encourage the beneficial bacteria to multiply.

I hope you enjoy these dairy-free options!

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It has other benefits as well. It stretches the entire joint capsule and the muscles that stabilize the shoulder blade, allowing the shoulder to rotate and elevate normally.

Dr. Kirsch recommends hanging not just to maintain healthy shoulders, but also to correct shoulder pain, frozen shoulders, subacromial impingement syndrome (SIS), and rotator cuff tears.

A rotator cuff tear is a tear in one or more of the tendons of the four rotator cuff muscles of the shoulder. It is one of the most common shoulder injuries, and impingement accounts for as many
as 95 percent of these tears. It’s more likely that when someone tears their rotator cuff tendons, it’s not from any weight they might be lifting, but rather from the tendons tearing as they try to pass through the compressed space between the humerus and the acromion process.

Not all tears result in a full-thickness tear. In other words, oftentimes only parts of the fibrous tendon have been torn. This is why hanging can even help rotator cuff tears. But hanging should only be performed if you can lift your arm to the horizon with natural motion. When the arm is above horizon, the rotator cuff won’t be pinched or irritated by hanging. If you can’t lift it to the horizon, the tear may be too extensive and may need to be repaired surgically.

Additionally, you shouldn’t use hanging exercises if you have severe osteoporosis and/or unstable or dislocating shoulders.

The recommended hanging exercise and simple weightlifting program only takes 10 to 15 minutes a day. It does require an overhead bar. This can be a monkey bar at the local park, a free-standing chin-up bar, a bar attached to ceiling joists, a wall bracket, or even one that fits in a doorway. You can also attach a bar with rope or chain to a tree or find a low tree branch. Dr. Kirsch provides plenty of examples and suggestions in his book, Shoulder Pain? The Solution & Prevention.

The basic goal is to hang by your arms, supporting your full body weight, for 30 seconds three times a week. And this is one case where more is better if you can do it. (If you have shoulder problems, Dr. Kirsch recommends 30 seconds every day until the problem subsides, after which you can cut back to three days a week.)

If the pain from hanging is intense, you may have to start with five or 10 second intervals and rest a minute or two in between each period.

Also, in the beginning, you may not be able to use your full body weight. If that’s the case, you can keep your feet on the ground while squatting to stretch your shoulders. That’s okay. Go at a pace that works best for you. Gradually work up to at least 30 seconds each day of hanging with your full body weight.

After learning about Dr. Kirsch’s protocol, I studied his theories, CT scans, and even the anatomy and X-rays of gibbons. As a result, I incorporated hanging into my exercise/weight program. I have been working out with weights for several decades, and therefore I experience occasional shoulder strain. Several times, I encountered shoulder pain, particularly doing chest exercises. Fortunately, I never experienced a bad rotator cuff tear, but each ache and pain forced me to refrain from doing any upper body exercises for several weeks while I gave my body time to heal.

Of course with each incident, it took a bit longer to recover. (I’m sure age is a factor.) But after studying Dr. Kirsch’s work, it became apparent that I had an impingement problem.

I was lucky and have been taking the opportunity to reverse the problem before incurring any serious injury. I sincerely hope you do the same.

I’m sure you know family members/friends who have had shoulder problems that required surgery and rehabilitation. Most of these injuries happen while doing the simplest acts—things that have been done hundreds of times in the past without incident. It doesn’t just happen lifting weights. It can happen playing tennis, swimming, cleaning windows, or taking out the trash.

When events like these occur, it is a sure sign of the gradual encroachment and ultimately the impingement of the rotator cuff tendons. These problems are inevitable if you do not brachiate regularly.

Now that you know how to prevent shoulder problems, start hanging and monkeying around like you did when you were a kid so that you can keep them from happening to you.

Factor #2: Muscle Loss

Remember that the ball portion of the shoulder joint is held in place by ligaments and rotator cuff muscles. The entire shoulder is surrounded by muscles.

As we age and become more set in our routines, many of these muscles are neglected. In fact, sarcopenia (age-related muscle loss) is now one of the most common health problems facing our older population. Unless you do something to prevent it, after the age of 25, you will lose an average of 10 percent of your muscle mass every 10 years.

Without any intervention, 100 percent of the 60+ population will
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develop sarcopenia. It is one of the main reasons elderly people lose their ability to live independently.

Prominent collarbones and/or squared-off, boney shoulders are well-recognized signs of sarcopenia. And only by strengthening the muscles in this area can you balance the forces surrounding the shoulder joint.

There is no drug you can take or quick fix available for reversing or preventing muscle loss. It requires exercise with weights.

Dr. Kirsch recommends starting weights only when you are able to raise your arm without any weight and without assistance above the horizon. He also suggests lifting weights immediately after you’ve been hanging since the space within the acromiohumeral joint will be its widest at that time.

He also recommends getting a set of dumbbells, ranging in weight from 1 lb up to 8 lbs. Beginning with the lowest weight, gradually work your way up to 30 to 45 repetitions of each exercise daily. When you can complete that many repetitions, move up to the next weight. Start by doing the exercises daily, and once your shoulder has normalized, you can cut the exercises back to three times a week.

Exercise 1

With a weight in each hand by your sides (palms facing inward at the starting point), raise the weights horizontally until both arms are level with your shoulders, like a bird flapping its wings, and then continue until your arms are fully extended above your head.

Exercise 2

Start with a weight in each hand by your sides. Raise both weights toward the front until they are horizontal. (Make sure your palms are facing downward.) Then continue until your arms are fully extended above your head.

Exercise 3

Bend forward at the waist while letting the weights in each hand hang down toward the floor. With your palms facing forward, move the weights backward and upward as far as possible. When your arms are fully extended, the backs of your palms will be facing the floor.

Start slowly and increase repetitions and weight only when it is comfortable to do so. Remodeling bone and strengthening and building muscles takes time.

Factor #3: Cartilage-Supportive Nutrition

Unlike bone, articular cartilage doesn’t have a blood or nerve supply. It must get its nutrients from the synovial fluid within the joint.

Cartilage is like a sponge; it compresses and expands with joint movement. When shoulder movement becomes restricted, nutrients don’t reach the outer edges of the cartilage, causing deterioration. Chronic inflammation adds to the problem.

Last month, I covered the benefits of taking cartilage-building compounds like gelatin. Refer to the October issue of Alternatives, or visit my website to read more about bone and joint health. If you’re currently suffering from a shoulder issue or want to prevent one, I highly recommend these resources.

Benefits of the “Alligator Pear”

I don’t simply enjoy avocados, I absolutely love them. (I could probably live on avocados alone, though that would obviously be an incomplete diet.)

It’s always nice to see research that confirms the health benefits of something you enjoy eating so much. A new in-depth report published in June of this year that discusses the many benefits of avocados just did that.

Avocado is a tropical fruit that appears to have originated with the Aztecs. I’ve sometimes heard it referred to as an “alligator pear” because of its shape and bumpy texture. It gets its name from the Aztec word, “Ahuacatl,” which translates to “testicle” (referring to its shape). Obviously, with a name like that, the Aztecs weren’t concerned about having to market the fruit.

The past few decades, avocados had the misfortune of being ostracized due to their fat content. But the low-fat dietary fad was rooted in erroneous research that was perpetrated in large part by the pharmaceutical industry.

Avocados are about 15 percent fat, but they consist of monounsaturated fatty acids. The most abundant fatty acid is oleic acid, the main component of olive oil—which should indicate just how beneficial this fruit can be.
**NEWS TO USE from around the world**

**Childhood Depression Is on the Rise**

LONDON, ENGLAND—Researchers at Liverpool University analyzed information on more than 10,000 children born in 2000–2001 taking part in the Millennium Cohort Study. After studying parent reports and conducting follow-up interviews with the children, they discovered that a quarter (24 percent) of girls and one in 10 boys (9 percent) are depressed by age 14. (Mental ill-health among children of the new century: trends across childhood, with a focus on age 14. September 2017. Centre for Longitudinal Studies: London)

Although these children were living in England, I suspect we would find very similar results among children in this country. This is evident from recent studies showing the ever-increasing use of antidepressants among children in many Western countries, including the United States. (Eur Neuropsychopharmacol 2016 Mar;26(3):411–9)

Childhood depression seems to be at an all-time high. The reasons are many. Social and peer pressures have increased, in part due to constant access to social media. There have also been dramatic changes in diet, most notably a reduction in nutrient-dense foods. Traditional foods (animal fats, fermented foods, eggs, etc.) help stabilize blood sugar and supply the essential fatty acids necessary for fighting depression.

While proper diet is critical, there are two supplements that I also recommend to everyone with depression.

The first is a quality probiotic. The direct link between the intestinal flora and the brain is irrefutable. Brain chemistry is, in large part, mediated by the metabolic actions of the bacteria in your large intestines. And we need to constantly replenish and nourish these beneficial bacteria. Fermented food and a quality daily probiotic are the keys, and this is where most children come up short.

Very few children today have developed a taste for fermented foods. Sauerkraut, kefir, kimchi, unsweetened yogurt, and pickled vegetables are typically either too spicy or too sour. Most children have also been exposed to several rounds of potent antibiotics at an early age. Most children drink chlorinated water (if they drink much water at all). All of these factors tend to destroy or disrupt the normal bacterial flora of the gut, which can take years to reestablish, even after a change in diet. This is why taking a daily probiotic is just as important for children as it is for adults.

My second recommendation is Zembrin (Sceletium tortuosum). During the last 30+ years, I’ve studied dozens of natural antidepressant compounds. There are a few good ones, but their effectiveness varies considerably. When I learned about Zembrin I was partly optimistic, partly skeptical. I studied its history and the limited research data. I also talked to researchers. But more importantly, I spoke with those who used the herb, I gave it to people whose opinion I could trust, and I tried it myself. To this day, I take it every morning and I still recommend it for both adults and children.

The nutritional content of one avocado is similar to what you’d get in a serving (1.5 ounces) of nuts like almonds, walnuts, or pistachios. Avocados are nutrient-dense (or at least moderately dense) since 80 percent of the fruit consists of fiber and water.

In this latest report, researchers reviewed all the previous studies on avocados and went into great detail on how it helps prevent clogged arteries, heart disease, cancer, high blood pressure, stroke, diabetes, obesity, food poisoning, vision problems, osteoporosis, depression, and...
birth defects. At the same time, it improves insulin sensitivity, stabilizes blood sugar, improves digestion, and increases detoxification. *(Phytother Res 2017 Jun;31(6):819–37)*

The data were so powerful that the researchers suggested the avocado could be the perfect food to combat metabolic syndrome—a combination of risk factors including high blood pressure, high blood sugar, high cholesterol, and elevated body mass index. These are the factors that lead up to obesity, heart disease, type 2 diabetes, cancer, and practically all of the other serious health issues we see so frequently today.

Interestingly, according to this report, every part of the avocado plant can provide health benefits. Although I’ve only consumed the pulp and extracted oil, the leaves, peel, and seeds provide many, if not all, of the same benefits.

Other researchers reported in August that they had identified 116 compounds in the avocado seed husk, many of which could not be found in the seed itself. One has very strong antiviral capabilities and another appears to show promise in killing tumors. (I’m not sure I’m ready to start eating the peel or entire seed just yet, but I may start working in a few husks.)

If all of this hasn’t convinced you of avocado’s benefits, I’ll appeal to your vanity. Avocados are a rich source of vitamin K2, and a lack of K2 is associated with skin wrinkles. People who live in regions of the world that have the highest intake of vitamin K2 look considerably younger than their age. An example is Japan, where vitamin K2 levels are high because of their consumption of natto. (Note: Avocado may be something you want to limit if you’re taking a blood thinner like warfarin.)

I don’t know about you, but I’m always looking for a guilt-free superfood. And that’s exactly what avocado is. What else can you eat regularly and as a result lose weight, look better, and get healthier in the process?

If I have convinced you to start eating more avocados, maybe making an avocado-egg fat bomb might interest you. Don’t let the name scare you away. They are great.

Simply hard boil three eggs and split them in half. Take out the yolks, put them in a bowl, and to them add:

- ½ large avocado
- ¼ cup of mayo (I suggest homemade)
- 1 tablespoon of lime or lemon juice
- ½ teaspoon of salt
- Black pepper to taste (you can also add bacon bits, chopped onions, capers, chives, salsa, etc.)

Mash everything together in a bowl using a fork, fill up the egg white halves like you would a deviled egg, and enjoy.

Until next month,