



## When Pain Screams Louder Than Words!

### HACKS TO BECOME A BETTER PILOT

version 031225

Your health is your most valuable asset — it's your license to fly. But relying on drugs or surgery could ground you indefinitely, putting your career and dreams at risk. The good news? You're here today, and it doesn't have to be that way. Finally, you have choices that can make your life and your flying easier.

These safe, proven "hacks" were created by a Senior AME and recognized expert in advanced medicine. They're designed to help you take control of your health and protect your future. Countless pilots have used these integrative approaches to stay sharp, strong, and cleared for takeoff — all without the risks of traditional treatments. Every day you wait is another chance for small issues to grow into bigger problems. Act now to protect everything you've worked so hard to achieve. This information is offered at no charge to you, so you have a trusted resource to consult to better understand how to promote your own wellness.

**As an Amazon Associate, I earn from qualifying purchases.** A similar program applies to other affiliate companies whose products I recommend. My recommendations are based on my medical experience and expertise and are not influenced in any other way.

Don't wait for a medical scare to force your hand. Save and share this information with fellow pilots, friends, and family who also have these concerns. Together, we can build a healthier, safer future for everyone who loves to fly — and for those who love them.

**Browse for what you need right now – Save to revisit later**

***HELP!* Gradual, sudden, or recurrent pain –  
top or bottom or both – *who cares?* This  
didn't hurt when I was younger ... what if it  
gets worse in the future! Could this cut short  
my flying years?**

**Your Solution Hacks are Below!**

### QUICK LOOKUP

**Low Back Pain**

**Diagnosing the Source**

**Neck Pain**  
**Traditional Care**  
    **The Basics**  
    **Chiropractic Care**  
    **Hydration**  
    **Medication Dangers**  
    **Surgery Concerns**  
**Integrative Medicine “Hacks”**  
    **Pain Relief**  
    **Reduced Inflammation**  
    **Trigger Point Injections**  
    **Spasm Reduction**  
    **PEMF Magnetics**  
    **Red Light Therapy**  
    **Topical Applications**  
    **Shower Massage**  
    **Vibrating Massage**  
    **Muscle Massage**  
    **Exercise**  
    **Traction / Stretching**  
    **Thompson Exercise**  
    **Stabilization Corset / Belt**  
    **Office Chair / Recliners**  
    **Prolotherapy to Strengthen Injured Tissues**  
    **Stem Cells for Rejuvenation**  
    **Nutritional Supplement Hacks**  
    **Eating for Happier Healing**

## **When your back tells you to “Hold Short”!**

Pilots have unique careers among all others. Unfortunately, the circumstances of a prolonged sitting in a cramped flight deck, vibration exposure, and the need to hoist flight bags and suitcases over and around, these are major stresses on your body. These can cause muscle strain and even disk herniation. Between 50 and 75 percent of pilots report episodes of low back pain during their civilian and military careers. Due to continuing stresses in the flight environment, chronic low back pain – lasting over 3 months – is more common than you might think. Even having to sleep in different hotel beds can be aggravating.

Maintaining a flight schedule is how you earn your keep. But low back discomforts can nag at you, drawing your attention and interfering with your concentration. Every pilot wants to avoid reduced focus, reaction time, and overall performance efficiency. Further, you might even experience more difficulty in smoothly operating the rudder pedals or brakes. Simply stated, you’re not at your best.

Pain medications are taboo, and almost all pilots recognize and honor this restriction. Seeking medical advice to manage symptoms can be frustrating. Studies show low back pain is the third most common reason for visits to the doctor’s office – but many physicians are limited in their

diagnostic understanding and their treatment recommendations. A temporary “break” from flying might feel more comfortable ... but what about “fixing” the problem for good?

You remember the old song, “the hip bone is connected to the back bone”? Your neck discomforts can be directly related to your low back pain – and vice versa. The physiology relating to this is more than you need to know ... but IF you have pains in one area you are very likely to have pains develop in the other as well. Each of the factors outlined above applies to those with neck issues as well. So our “hacks” are going to be equally successful approaches regardless of where you are now suffering or wherever that started.

As an aside, studies show that over time about 68 percent of fighter pilots report low back pain report neck pain at about 30 to 60 percent. Among helicopter pilots, about 67 percent suffer with neck pain. Collectively these are referred to as “musculoskeletal issues,” prevalent as occupational hazards for pilots due to the physical demands of flying. What you want to avoid is for any of these to impact on your career. Severe cases can result in persistent pain syndromes or operations, sometimes leading to transition to non-flying assignments or even early retirement. One important takeaway: be careful to avoid confusing “the pain” you feel with “the problem” causing it – severe pain does not necessarily mean a severe problem or one that is not rather easily managed and resolved.

## ***Gotcha!***

**Prolonged Sitting** is difficult for most people, but pilots sometimes endure long hours in a seated position, leading to muscle stiffness, spinal compression, and reduced circulation. [See the Solution “hacks” on the critical need to reduce the tendency for Deep Vein Thrombosis.]. Pilots often agree with passengers: design of the flight deck seats often has a complete lack of lumbar support, which enhances discomforts. Selecting a correct comfortable chair at home can be important in reducing your discomforts. (See recommendations below)

**Vibration** is unavoidable in piston-powered and rotorcraft. Although “microtrauma” doesn’t seem impressive, these repeated injuries to spinal discs and support tissues are discomforting and predispose to more serious injuries especially over the years.

**Postural Stress** is also unavoidable, since pilots have to repeatedly lean forward or to the side to operate controls or view instruments. Your mid- and low back are not built for that consistent activity. Reaching for side-mounted controls can aggravate as well.

## ***How Sore Is Sore?***

**Muscle “Strain”** is the **most common discomfort**, due to prolonged confined sitting or overuse of spinal muscles, resulting in soreness and stiffness. Not only can these symptoms interfere with restful sleep but also they can make for slower and painful arising from bed and stiffness that frustrates resumption of daily activities.

**Soft Tissue Damage** (stretching and tearing) is poorly understood and **easily overlooked** by physicians, who investigate for disc injuries or other sources of pain. Injuries to ligaments (attaching bone to bone) and tendons (attaching muscle to bone), however, are much more

common and debilitating for most people. Happily, treatment (described below) can be successful and often permanent.

**Intervertebral Disc “Issues”** are what most people expect to be “the answer” for worsening low back or neck pain, but these are rarely “the problem” unless sudden, severe injury. Incidentally, mid-back pains are similar in many respects to upper and lower discomforts but your ribs attach to your spine vertebrae in the back and your breast-bone (sternum) in the front. Stabilization of your mid-back bones by your ribs leads to fewer complications than for your upper or lower back.

**“Degenerative disc disease”** means reduced support and flexibility due to accumulating wear and tear over the years. Your pains are very real but surgery and even medications rarely are the answer.

Most everyone has heard of **“Herniated or bulging discs,”** especially in the lower spine (L4-L5, L5-S1). In many patients, physicians claim that these changes cause nerve compression leading to pain radiating down your leg, known as “Sciatica.” In fact, that diagnosis is often misapplied – which is a real problem if you undergo surgery and then continue to suffer with the same pains. Review again the paragraph on “Soft Tissue Damage,” which is more often the culprit. Below, you will see how these discomforts can be successfully treated for most people – *without* surgery.

Incidentally, workers at “heavy-lifting jobs” (such as clerks in hardware stores) sometimes wear a stretchy web belt, thinking they are reducing the risk of disc injury. Almost always they wear the belt across their lower belly, way too high. I call those folks “wasp-waists,” since they appear to have an hourglass shape. Such a position can increase stresses across lower lumbar discs. The proper way to wear such a support belt is described below.

**“Facet Joint Pain Syndrome”** is common and **overlooked** in many people, where inflammation of the tiny joints between your back bones results from compression, torquing, excessive range of motion (sideways or backward), awkward positions, even vibration stress. This is a “hard tissue” variant of the “Soft Tissue Damage” described above – and it can be *quite* painful! I have successfully treated many pilots and others over the past 35 years using an integrative medicine approach that I describe below, “prolotherapy.”

Spondylosis (spurs) are **“Degenerative Arthritis”** painful changes that can result over time, due to a major injury (fall or accident) or minor repetitive ones (stretching and tearing of ligaments and tendons). Arthritis **“spurs”** develop *in response to* an unnatural “wobble” of your joints, since stabilizing (soft) tissues no longer are able to maintain correct joint alignment and function. The spurs are your body’s natural attempt to “fuse” the joint, which would stop the wobble but limit your flexibility and motion. (We erroneously call that “getting older” but it is actually “response to getting injured.”). Again, repairing the soft support tissues with “prolotherapy” (below) has been markedly successful for most patients over the past 35 years.

**CAUTION:** Physicians sometimes show patients the x-rays of their neck or low back or other joints and claim that the degenerative or arthritic changes mean that their *only* recourse is surgery. In my long experience, that is *rarely* needed. Prolotherapy has helped dramatically improve almost all of my patients, despite the appearance of their x-rays.

**Sacroiliac Pain Syndromes** – have long been **poorly understood** in medical practice and often are erroneously diagnosed as “sciatica” nerve compression pains. In the 1990s, I was fortunate to attend the two international symposia reviewing critical concepts in how sacroiliac instability can relate to low back pain. Your “iliac” hip bones meet in the front at your low belly, but in the back they connect to your lowest spinal segments, your “sacrum.” “SI” joint pains can result from “wear-and-tear” degenerative arthritis, injuries, abnormal walking patterns for any reason, gout, autoimmune disease (rheumatoid or lupus arthritis), even as a result of pregnancy (progesterone hormone creates relaxation of supporting ligaments to better facilitate delivery). SI joint structure is different than any other in the body, having both “wet” and “dry” segments.

Because low back pain can be a presenting complaint, an “SI diagnosis” can be *missed* and needed treatment can be delayed. Surgical fusion as a treatment can have many long-term complications – after seeing my patients suffer post-operatively, I quickly resolved never to advise fusion. Prolotherapy (described below) has been remarkably successful in helping SI patients. The doctor who trained me and treated me with prolotherapy injections offered one disturbing comment: “You are my worst SI patient, taking longer to show improvement than any other.” I was blessed to have started proper treatments over 30 years ago.

**What this means for you: Sacro-coccygeal pain** is not actually “low back” pain but rather a posterior pelvic pain syndrome, at the *lowest* level of your spine. Sometimes a fall (onto your butt) or other accident can produce these continuing pains. Diagnosis requires careful review and examination. Early in my practice, I referred one patient for surgery; he never forgave me, as his pains worsened considerably. Pilots repeatedly sit for long periods in cramped seats, and sacro-coccygeal pains can become almost debilitating in these circumstances. Prolotherapy has been uniformly successful in resolving these discomforts for my patients.

## **But My Neck Hurts *All* the Time**

The physiological changes described above apply to almost any neck injury. Helicopter pilots experience higher rates of discomfort due partly to the additional strain of headgear. Helmets, night vision goggles, and headsets create neck strain. Further, tilting your head forward or sideways to monitor instruments, adjust controls, or communicate on the flight deck are awkward postures. Turning your head to check instruments or observe your surroundings is more demanding in a helicopter. Again, limited ability to adjust (confined) seating is an aggravating factor. Rotorcraft pilots experience continuous whole-body vibration trauma, to which your neck is quite sensitive. Neck pains can limit your comfortable ability to scan for traffic or obstacles to either side, creating risks for taxiing and for flying.

In addition to *all* of the damaging changes described above for all pilots, **Cervical (Neck) Muscle Strain** can be encountered more often by helicopter pilots. Further, they are much more likely to suffer **Whiplash-Like Injuries** due to sudden jolts during turbulent conditions or emergency maneuvers. [Clear air turbulence can affect any pilot – recently flying my Ercoupe on a clear day, my head *slammed* into the top window frame ... twice.]

**Muscle-tension Headaches** – are much more common than many people expect. Sports injuries or accidents, even long ago, set the stage for these distressing symptoms. Sometimes called “occipital headaches,” they seem to start at the back of your head, often with neck and upper back muscles feeling tight or tense. Pain often radiates forward, even to your temples or

“behind” your eyes. In response, muscles in the front side of your neck can become tense, and these can lead to tender spasms in your temples and jaw. Quick test: press your finger slightly backward and toward your teeth at the angle of your jaw, just below your cheekbone. Tenderness can indicate a neck pain syndrome. Indeed, such “face” pains can be confused as coming from your sinuses.

Pains, tingling, or numbness radiating down as far as your fingers can be associated with nerve compression or injury in your neck. Obviously seek evaluation by a skilled physician – but be very shy to accept an early offer of surgery unless specific tests show a “nerve pinch” that should be fixed by an operation. Many of these conditions can be traced to soft tissue injuries (ligaments and tendons), where prolotherapy can provide significant and permanent relief.

Whiplash episodes, where your head whips back and forward during an accident or fall, can stretch or even tear support tissues (ligaments and tendons) as well as muscles in your neck and upper back – all the way down inside your shoulder blades. Instances such as these can create long-lasting discomforts, daily or episodic, worsening with aggravating circumstances ... long flights, uncomfortable seats, luggage and other lifting, different beds or pillows, and so on. Medications are not the answer; surgery is never the answer. The various “hacks” presented here can reduce your discomforts. Happily, prolotherapy treatments (described below) can provide permanent improvement.

**What this means for you:** The solution “hacks” described below might be *critical* for your future. Spinal injuries of any kind noted above can become progressively worse, interfering with comfortable and safe performance of flight duties. The worst possible outcome, of course, is that failure to have proper diagnosis and appropriate treatment can increase your risk of long-term (even lifelong) disability. Find a physician who listens to you, who examines you carefully, who orders appropriate tests (not just imaging studies), and who proposes safe *and effective* treatments.

## **Traditional (Usual, Conventional, Regular) Care Has Serious Limits**

*Let me let you in on a little secret:* I have undergone one low back operation and two neck operations, in all 3 cases to relieve worsening pains and limitations from bony compression on nerves. I have a genetic condition – Ehlers-Danlos Syndrome, double-jointedness or ligament laxity syndrome (presented elsewhere on this site) – where my soft tissue ligaments and tendons do not form as well, so they more easily stretch and tear. So my joints would wobble. That created bony arthritic spurs. And I would suffer pain. The operations relieved urgent discomforts – but *only* prolotherapy has restored more normal function and comfort by strengthening my supporting tissues. My perspectives noted below, on the usefulness of “traditional” approaches, come from a lifetime of very personal experience as a patient and from almost 4 dozen years of expert training and practice as a physician.

## **Make Time for “The Traditional Basics”**

**Lumbar Support Pillow**– easy to use at home or at your office, a bit more effort to carry and use in seating on the flight deck. Improving your seating posture can reduce the *mis*-alignment factors that impose unusual stresses on your spine and other tissues.

**Everlasting Comfort Lumbar Support Pillow for Office Chair - Memory Foam Back Cushion for Chair, Car, Couch**

AMAZON LINK: <https://amzn.to/3WslIVK>

**OPTP The Original McKenzie Slimline Lumbar Support – USA-Made Lower Back Support for Office Chair, Car Back Support, and Travel Lumbar Pillow**

AMAZON LINK: <https://amzn.to/4h1MpUf>

**Adjust Your Seat Position** – to minimize reaching and strain. Experiment with what feels best for you. Yes, I know this might not be possible in many aircraft – but remember you also spend hours seated in your automobile! And in your chair at home. Finding a suitable cushion might be a challenge.

**kingphenix Premium Car Seat Cushion, Memory Foam Driver Seat Cushion to Improve Driving View- Coccyx & Lower Back Pain Relief - Seat Cushion for Car, Truck, Office Chair**

AMAZON LINK: <https://amzn.to/4gc7qdJ>

This one includes lumbar support:

**Doctor-Developed Adjustable Back Seat Cushion for Chairs, Couch, Driving – Lumbar Support Pillow for Office, Recliner - Ergonomic Pressure Relief and Enhanced Blood Flow**

AMAZON LINK: <https://amzn.to/4juKl8L>

**Gentle Stretching Routines** – can be very helpful to relax your muscles. Two methods help relieve muscle spasm: stretching and compressing the muscle belly. Gentle massage therapy can be a comfortable addition to your program. Yoga and Pilates, avoiding extreme positions that can abnormally stretch your support tissues, can be useful programs for many people.

Obviously, taking any opportunity to walk or stretch during longer flights could be very helpful – but most duty assignments are not in aircraft that provide this choice. At any stops *between* flight segments, you can look for a way to do gentle stretching.

**Gentle Aerobic Exercise Routines** – can help improve your circulation and reduce stiffness (muscle spasm!). Avoid “bouncing” or extremes.

**Physical Therapy** – while prescribed by many physicians, my experience has shown that these treatments are expensive and often provide only *limited* and *brief* relief. The best value might be finding a therapist who can coach you to undertake a continuing at-home program of targeted muscle strengthening and gentle stretching for flexibility.

**Massage and Myofascial Release** – again, if you wish and find the expense is worthwhile, these approaches also can help relieve muscle tension for your immediate comfort. A surprisingly large number of “massage techniques” have

been developed – find a therapist who has broad experience and can employ ones best suited for your needs.

### **CRITICAL TIP:**

**Heat and Cold Therapy** – are often overlooked but sometimes remarkable in their ability to relieve discomforts. Find what works best for you: heat alone, cold alone, or heat and cold alternating (my usual recommendation for 10 – 15 minutes each, to surge blood flow through an area to reduce inflammation). A heating pad with a timer can be most useful.

**CAUTION:** Consider wrapping your heating or cooling unit in a towel to reduce your chance of burning or frostbite.

**Magic Gel Ice Pack for Back Pain Relief | 2 Pack Reusable Lower Back Wrap for Hot or Cold Therapy**

AMAZON LINK: <https://amzn.to/4gaHleQ>

**Ice Pack (3-Piece Set) – Reusable Hot and Cold Therapy Gel Wrap Support Injury Recovery, Alleviate Joint and Muscle Pain**

AMAZON LINK: <https://amzn.to/3WoFU5p>

**Chiropractic Care** – in some situations, the results are similar to physical therapy or massage: brief and limited. However, when you are suffering from misalignments (often aggravated by chronic muscle spasms), proper gentle adjustments might be “just what the doctor ordered.” A history of prior injuries – sports, falls, auto accidents – produces unsuspected but persistent changes that make chiropractic much more likely to provide you relief. Over the years, hundreds of chiropractic treatments were helpful to keep me working, even though they could not permanently correct the “wobble” associated with my genetic condition (described above). When combined with prolotherapy (described below), chiropractic has been dramatic in returning me to a more productive and comfortable life by strengthening my weakened support tissues. One benefit is that stronger ligaments and tendons have allowed for chiropractic alignments to become more successful.

### **CRITICAL TIP:**

**Hydration** – is a concept tossed around in “health and wellness” circles, often without any clear definition. Your body is about 55 - 60 percent water; even mild dehydration can drain your energy and have you feeling tired, experiencing headaches, reduced motivation, and even impaired mood. Sadly, our early “training” has detached us from recognizing and responding to our natural signal of “thirst”: we quickly learn in grade school to be “camels” – when you drink less, you don’t have to raise your hand to request to be excused to go to the bathroom. But sufficient water intake helps to cushion and lubricate your joints, as well as fostering desired normal chemical reactions inside every cell of your body.

How much water do you need? “One size fits ... *none*.” The answer depends on several factors for every individual, and remember your results may vary and can change over time or in different conditions! In general: the U.S. National Academies of Sciences, Engineering, and Medicine has determined that the



*average*, healthy adult living in a temperate climate needs an adequate daily fluid (beverage) intake of about 15.5 cups (100 ounces, 3.7 liters) for men and about 11.5 cups (75 ounces, 2.7 liters) for women. About 20 percent of your daily fluid intake can come from food, the rest from liquids. Calculated as an 8-ounce glass: 12 – 13 glasses for men and about 9 glasses for women. Some physicians have concluded that these volumes are too much and recommend even less. What has you feeling best is where you should direct your goals. **CAUTION:** for you, this could be too much or too little ... and your needs can vary over time *and* in different circumstances.

Exercise can increase your need, as well as any hot or humid environment, including sitting for hours on the flight deck. You must replace losses from sweating, fever, vomiting, or diarrhea. If your urine is light yellow or colorless, you are more likely to be getting sufficient intake. One of my friends studied how many of our “disease” conditions – arthritis, high blood pressure, many others – can be improved significantly by appropriate intake of water: “Dr. F. Batmanghelidj’ classic water book! This book, based on a pioneering physician’s twenty years of clinical and scientific research into the role of water in the body, explains a breakthrough discovery that Unintentional Chronic Dehydration (UCD) produces stress, chronic pains and many painful degenerative diseases.”

### **Your Body’s Many Cries for Water (book) (2008)**

AMAZON LINK: <https://amzn.to/3Ej59Qo>

If you need “flavor” to encourage you to drink enough water (and avoid the crafty temptations of soda pop and other commonly available beverages), you could consider easily carrying around ...

### **Stur Liquid Water Enhancer | The Ultimate 10-Pack Variety Pack | Naturally Sweetened**

AMAZON LINK: <https://amzn.to/4jvNRQv>

### **Cirkul 32oz. Chameleon Stainless Steel *Water Bottle Starter Kit* with Green Lid, 2 Flavor Cartridges**

AMAZON LINK: <https://amzn.to/4hppged>

This type of pack is required for the Cirkul water bottle:

### **Cirkul FitSip Flavor Cartridge Variety Pack with Electrolytes, 6-Pack**

AMAZON LINK: <https://amzn.to/4hhGY3q>

Many people find that they feel better when adding minerals to their water. This choice makes great sense when food choices or your appetite are limited:

### **Stur Electrolyte Water Enhancer | Sweetened with Stevia**

AMAZON LINK: <https://amzn.to/42ovwOU>

### **Ultima Replenisher Daily Electrolyte Powder Drink Mix – Original Variety, 20 Stickpacks – Hydration Packets with 6 Electrolytes and Minerals**

AMAZON LINK: <https://amzn.to/40uMoRs>

### **Liquid I.V.® Hydration Multiplier Sugar-Free - Raspberry Melon | Electrolyte**

### **Powder Drink Mix**

AMAZON LINK: <https://amzn.to/4gZtd9A>

**“Ideal” weight** – is an interesting concept that has varied widely over time and circumstance. In general, the closer you are to your “ideal” body weight, the more readily your back can repair and maintain. The average soldier during the American Civil War, the first World War, and World War II weighed about 140 – 145 pounds. An article published October 23, 2023, in the New York Post disclosed worrisome statistics: “The American Security Project, a Washington-based nonprofit, found that 68% of US troops qualified as either “overweight” or “obese” under the Body Mass Index, which takes into account a person’s age, height and weight. It also determined that the number of troops in the “obese” category have more than doubled over the course of the past decade — from 10.4% in 2012, to 21.6% last year.”

A simplistic but useful explanation is that our dietary choices (among other circumstances) have led to an explosion of “Metabolic Syndrome,” also known as “pre-diabetes” or “insulin resistance” (first described in 1988 in a landmark presentation by my friend and mentor, Stanford professor Gerald Reaven). More details on this condition are presented elsewhere on this site. Needless to say, a more ideal weight and better muscle tone produce less stress on all body structures, including your spine.

### **Syndrome X: The Silent Killer: The New Heart Disease Risk**

AMAZON LINK: <https://amzn.to/3PIQ51f>

### **Prediabetes: A Complete Guide: Your Lifestyle Reset to Stop Prediabetes and Other Chronic Illnesses**

AMAZON LINK: <https://amzn.to/3E5HzGZ>

## **Be *Wary* of Other Traditional Approaches**

**Medications** – are the mainstay of the general medical treatment offered to those complaining of pain. The simplest of these are over the counter: **aspirin** (acetylsalicylic acid, many brand names) and **acetaminophen** (paracetamol, Tylenol and other brands). Because these products are readily available, it is tempting to think that they are safe and could not be associated with a medical emergency. Aspirin poisoning can occur with taking a very high dose at once – or gradually, by taking many low doses over a period of time. *No* specific treatment exists to reverse an episode of aspirin toxicity.

Many over-the-counter products contain aspirin or acetaminophen, so the prospect of excessive intake through unintentional “double-dipping” is very real. Each of these can have “benefits” but they also carry the risk of potentially serious side effects, well-described in many internet sites. Enhanced pain relief often can be obtained by **taking the two *together***, one aspirin and one acetaminophen of equivalent milligram dosage at the same time. The different chemical effects of aspirin and acetaminophen are complimentary and might provide welcome relief to those who have never tried the combination.

**CAUTION:** Avoid these drugs for minimal discomforts. If you find a brief need, restrict your usage of aspirin to no more than 4,000 mg daily and of acetaminophen to no more than 3,000 mg daily, to minimize your risks of serious side effects. The estimated lethal dose of acetaminophen is about 10,000 mg daily – dangerously close to the advised maximum intake. However, undesired serious consequences can be experienced at much lower dosages. Compared with younger patients, older aspirin users were 10 times more likely to experience disabling or fatal gastro-intestinal bleeding, although exact numbers are difficult to establish. Acetaminophen alone may account for 500 deaths a year.

In the United States alone, every single year about 100,000 people who take NSAIDs are hospitalized, and approximately 16,000 of them **die**. Because of the prospect of disabling events, the FAA is concerned with prolonged usage of either of these compounds. More importantly, the FAA is interested in the chronic conditions with which you are suffering and for which you are seeking relief, since any number of these could degrade your performance of flight duties.

When I was studying pharmacology, I did a “quick and dirty” evaluation of Bufferin brand of aspirin, since they advertised that their buffering capacity made their product better than others. Indeed, my study showed clear superiority that *might* actually reduce potential side effects of stomach lining irritation. In this regard, I have always encouraged the choice of Bufferin over “regular” aspirin. Whether taking aspirin as an enteric coated tablet or capsule or as a liquid produces fewer bleeding episodes is an open question.

**Bufferin Aspirin Pain Reliever/Fever Reducer Coated Tablets, 325mg, 130 Count (Pack of 3)**

AMAZON LINK: <https://amzn.to/3E2WIZs>

**Tylenol Regular Strength Tablets, Acetaminophen Pain Reliever & Fever Reducer, 100 ct**

AMAZON LINK: <https://amzn.to/4jp0wEF>

**NSAIDs** – **Non**-Steroidal Anti-Inflammatory Drugs – are a general class of pain relievers commonly promoted for over-the-counter and prescription use. Aspirin is actually the first NSAID. Others include frequently advertised drugs as **ibuprofen** (Advil, Motrin), **naproxen** (Naprosyn [Rx], Aleve), and **diclofenac** (Voltaren [Rx], Voltaren gel). Others have been heavily promoted to physicians. While they can be remarkably effective in relieving pain and inflammation, they can have *ominous* side effects.

My irreversible “turn” toward “integrative” (“complementary,” “alternative”) medicine was roused by an unexpected disaster in my first year of solo practice ... as a direct result of an NSAID that I had prescribed to relieve arthritis pains. Earlier drugs were generally less effective and often had unpleasant side effects. My new patient, in his early 50’s, had not yet been offered Naprosyn, which had recently become available. He and his wife were thrilled with his dramatic improvement. *That is until* ... one day I was called at noon to the intensive care unit, where the ER physician had just admitted him crashing in shock. I quickly started using blood pressure cuffs to *force* units of whole blood in faster than usual, and I ordered the nurses to call local hospitals to send “type-specific” blood by police cruisers, Code 3, lights and siren. I had no time for crossmatch testing, he was worsening. Despite our best efforts, I couldn’t stabilize his condition in order to take him to surgery 80 feet down the hall, to operate to stop the bleeder in his stomach. Instead, I finally pronounced him dead. I had go out to tell his wife that

she would no longer enjoy the company of her husband ... due to a *known* side effect of *every* NSAID medication.

**CAUTION:** Naprosyn was my prescription that caused his *fatal* gut bleed; Aleve is available to you, today, right now. It is promoted as “the #1 Orthopedic Doctor recommended **over-the-counter brand** for minor arthritis pain.” Aleve is the *very same drug*, about one-half the dosage of prescription Naprosyn. “Naproxen” is even recommended for pains from gout or menstrual cramps ... and prescribed for children as well. Safe? You decide.

**What this means for you:** OTC “over-the-counter” medications can pose unexpected risks. The FDA recommends that you read the package label (1) to identify the **active ingredient(s)** to confirm you have not had any adverse reactions in the past; (2) to see if “may causes drowsiness” or “do not operate motor vehicle or machinery” **warnings** are offered, which means “do not fly!”; and (3) to read the **dosage interval** directions, so you can calculate your “no fly after *last* dosage taken.” *In general*, multiply the dosage time by 5: every 4 – 6 hours = 30 hours “no fly,” every 8 hours = 40 hours “no fly,” every 12 hours = 60 hours “no fly.” Antihistamines are longer lasting, so wait at least 5 *days* after last dose. Always **check with your AME** – and wait to fly after starting any new medication to be sure you tolerate without side effects.

**What this means for you:** Drugs have **NO** “side effects.” They have *only* effects. The ones you desire, for which they are prescribed, are called “therapeutic effects.” The ones you do not want to see or experience are called “side effects.” Neither your body nor the drug have any value or investment into whatever effects are expressed; they simply “are.” The problem is that adverse effects are those which impair your comfort or wellbeing or challenge your survival. When patients have asked me, “What’s the chance of [a particular drug-related event] happening to me?”, my reply is simple: “Zero *or* 100 percent.” They are seeking some guidance to decide whether the possible risk of adversity is overwhelmed by some expectation of a desirable benefit. But in the simplest view, if you do *not* suffer a particular unpleasant effect, then “your chance” was “zero,” but if you *do* suffer something of concern, then “your chance” was “100 percent.” Since interactions in biological systems are infinitely complex, no one can give you a more honest answer – either you “get” an effect (desired or otherwise) or you do not. Whether you are *more* or *less* likely to suffer a reward or an injury can never be more than a seemingly educated guess. Ready to roll the dice?

Even careful use of *any* medication cannot protect you from adverse consequences. A 2013 study led by Donald Light concluded that “By far the greatest number of [prescription drug-related] hospitalizations and deaths occur from drugs that are prescribed properly by physicians and taken as directed.”

Medical students during my training were offered the opportunity to participate in “drug safety” or “drug effect” trials, often for 3 or 4 hours, often for payment of \$50 - \$100. One professor sought volunteers for such a brief afternoon experiment. After reading the one-page consent form describing “possible side effects,” no member of my class chose to participate. The instructor then explained the message he wished to convey: “Not one of you was willing to be paid \$50 for this study. The consent form actually describes known side effects that made you cautious, hesitant. I want you to remember this when you are awakened at 2 in the morning and you casually tell your patient to ‘Take 2 aspirin and see me in the morning’; we couldn’t *pay* you to take 2 aspirin tablets.”

**Muscle Spasm Relaxers** – have a definite value in helping many patients. Injury inflammation and “wobbling” bones can create persistent muscle discomfort. Muscles are meant to move bones; when moving leads to pain, muscles can be recruited to hold your bones still. Such contractions are not only painful but also can help perpetuate your problem. A number of prescription drugs have been developed to help “relax” such spasms – basically every one has effects that makes them prohibited for flight. In my personal and clinical experience, I have determined that one of the safer and well-tolerated compounds is metaxalone (Skelaxin). Your muscles have been enlisted to stabilize joints for comfort; a misuse of spasm relaxing medications is to take them *during the day* so that you can move more comfortably ... but that will continue to aggravate the underlying problem. I have long advised my patients to take prescription Skelaxin *only* at bedtime, and usually only half of the 800 mg tablet; obviously flight duties must be avoided for 24 or more hours after any dosage.

**Steroids / Corticosteroids / Cortisone / Glucocorticoids** – these are *steroidal* anti-inflammatory drugs. Occasionally prescriptions are offered for pills taken briefly, usually in gradually decreasing doses (“weaning”) to avoid suppressing normal adrenal function that could result in weakness, dizziness, fatigue, muscle pain.

Perhaps more commonly, severe cases involving nerve or joint inflammation and pain are advised to have targeted injections (“shots”). These are not without the prospect of serious risk: immune suppression, weakened ability to fight infection, bleeding or bruising, delayed healing, even osteoporosis (weakened bones). More frequent injections and higher doses are associated with increased adverse effects.

Steroid injections usually offer effective but sometimes only temporary relief from pain caused by inflammation. Many physicians consider this approach to be useful not only in cases of sciatica (nerve compression pain) but also in a number of systemic illnesses (such as rheumatoid arthritis, multiple sclerosis, ulcerative colitis, asthma) or localized trauma (such as tendinitis, plantar fasciitis). Specific targeted injections (guided by x-ray fluoroscopy) can be done for compression/irritation/inflammation of nerve roots in your neck (cervical epidural steroids, CES) or your low back (lumbar epidural steroids, LES). One LES injection that I had produced pain relief for over 18 hours; the other two gave virtually no relief beyond 6 hours.

**Surgery** – desperate measures for desperate patients. “Back” (cervical or lumbar) surgery is generally reserved for debilitating conditions such as significant disk herniations, spinal instability, severe arthritic spurring, or narrowing of the spinal canal. Yes, I chose to undergo one low back operation and two neck operations, each as a result of injury. Had I known earlier about prolotherapy (described below), I might have been able to avoid surgery. Nevertheless, nagging discomforts continued after each ... and prolotherapy finally stabilized my back joints and markedly relieved my distress.

The decision to offer spinal surgery properly involves a number of specific tests, beyond merely x-rays (radiographs), CT scans, or MRI scans. Neurologists have specialized exams to evaluate whether your nerves are being compressed or otherwise injured. Your surgeon should take special care to define your pathology, so that you can have a reasonable expectation that an operation could provide relief from your pains and limitations. In every case, I encourage you to seek one or more “second opinions,” to review your condition and *all* studies, before proceeding with any surgery. In my practice experience, patients with significant nerve compression that

must be relieved by an operation will demand a procedure within 3 weeks of injury. Those who “tolerate” longer lingering pain are, in my judgment, more likely to improve substantially with prolotherapy treatments (described below) combined with any number of other “integrative medicine hacks” presented below.

Several conditions can be treated with operations, so there is no “one” procedure to consider. “Fusion” of spinal bones or implanting of bone spacers or artificial discs introduce a whole new range of potential later problems, beyond the scope of this presentation. Micro-surgery has developed into a fine art, often minimizing complications and reducing post-operative recovery time. My Houston surgeon, David Cech, pioneered many of those early micro-procedures in the 1980s and later.

**What this means for you:** Surgery involves no “takes-back”: you get what you got, no reversals. Going forward with an operation is a major life decision. Complications can happen to anyone, at any time: spinal cord or spinal nerve root injury, paralysis, infection, blood clots at the surgical site or elsewhere, bleeding, persistent pain, anesthesia risks, and so on. Any of these might be rare ... but whatever happens to *you* is “100 percent.” Any of these might be easily handled by your medical team – or they could result in short-term or even lasting limitations that could permanently ground you. Carefully consider your options – and pray often for guidance. Take control of your life and your treatments!

***WAIT!*** Before you begin to feel that you have to order *everything* recommended below, here’s my suggestion: Order today *only* what you feel you need right now. You can always check back to order more items next week or later, if you find you need additional hacks or you choose to begin a program working toward ever-better health. My recommendations are based on a lifetime career of education, training, experience, and practice, to offer you the best value to help recover and maintain your health and wellness. I have prepared this extensive presentation for you to retain for future use and for sharing to help others as well. In over 50 years of medical writing, I have never recanted a word that I authored. You may comfortably rely on what I offer to help relieve your discomforts so you can safely continue to enjoy your career.

## **Integrative “Hacks” Successfully Used by Pilots**

### **Pain Relief and Reduced Inflammation**

**Acupuncture** – inserting thin needles at specific “energy” points has been shown to relieve discomfort. However, this approach does not rebuild injured tissues. A close cousin is **Acupressure**, where fingers or small tools are applied to specific points on your body to reduce spasm and encourage comfort. Several websites and youtube videos give details on this safe and easy-to-learn procedure but once again, this approach does not rebuild injured tissues.

<https://acupressureguide.com/neck-shoulder-pain-pressure-points/?>  
[https://www.youtube.com/watch?v=Ea\\_tDsYd1fo](https://www.youtube.com/watch?v=Ea_tDsYd1fo)  
<https://www.youtube.com/watch?v=JK3kKtNFgnM>  
<https://www.youtube.com/watch?v=IT224nXlqgY>

**Pressure Points to Relax Muscles** – easy to use *self-care* that can be dramatic in helping your comfort. Basically, this is gentle massage when you don't have a massage therapist. These devices allow you to safely apply directed pressure directly on the painful belly of a muscle in spasm. Use as needed once or twice or more each day.

**Body Back Buddy Elite Trigger Point Massage Tool, Neck and Back Massager Handheld, Manual Self Massager, Massage Cane, Muscle Knot Remover with Instructions, 2-Pack Bundle (Black)**

AMAZON LINK: <https://amzn.to/40vbX4W>

**Hall of Fame Neck & Back Massager Tool - Trigger Point Massage Tool with Self Massage Hook for Pain Relief, Shoulder, Neck, and Back Muscle Knot Remover**

AMAZON LINK: <https://amzn.to/3Egmfy0>

**5D Kneading Neck Massager, Shiatsu Back Neck Massager with Heat, Cordless Electric Enjoy It Neck Massager, Massage Pillow for Neck, Back, Shoulder, Leg, Deep Massage at Home**

AMAZON LINK: <https://amzn.to/3CEr1p7>

**Trigger Point Injections** – related to but different from acupuncture, also can relieve discomfort and sometimes muscle spasms when specific pressure and injections are directed to tender spots on a muscle belly. I have offered these to qualifying patients for over 40 years, with good success. Physicians with training, experience, and skill can provide you with temporary results for “myofascial syndrome” but these do not rebuild injured tissues. In addition to headaches and neck and back pains, these treatments can help many who suffer with shoulder, arm, wrist, waist, thigh, knee, foreleg, shin splints, and foot pains. Janet Travell, M. D., developed many of these techniques in the 1950s; she was a personal physician to President John F. Kennedy. The National Association of Myofascial Trigger Point Therapists promotes an understanding of this approach and assists with locating practitioners:

<https://www.myofascialtherapy.org/areas-of-pain>

**Magnets** – placed over a distressed area or in your shoes have been claimed to reduce muscle spasms, inflammation, and pain patterns. “Magnetotherapy” with static magnets has yielded mixed results. If they work for you, they are generally safe and easy for at-home use.

**CAUTION:** Any of them can interfere with the **function of implanted devices** such as pacemakers, defibrillators, and insulin pumps. While high-strength static magnetic fields, such as those used in MRI, have not been shown to adversely affect **pregnancy**, the lack of specific research on lower-strength therapeutic static magnets warrants a cautious approach.

**MagnetRX® Magnetic Acupressure Patches - 3,500 Gauss Ultra Strength Healing Magnets for The Body - Acupressure Magnets Patch (20 Pack)**

AMAZON LINK: <https://amzn.to/3PLwHk1>



**MAG® FERRITE Magnets 10 Units for Biomagnetism -Biomagnetic Magnets Kit –  
Imanes para Biomagnetismo Médico – Dr Goiz Magnets for Biomagnetism Bio  
Magnet Pair– Round Magnets**

AMAZON LINK: <https://amzn.to/3WwFSZr>

**Pulsed Electromagnetic Field Therapy PEMF** – is a non-invasive energized magnet treatment that stimulates cellular function. This has been documented to provide benefits to many people suffering with muscle spasms and pain patterns. These devices are expensive (my medical office PEMF unit cost \$28,000 in 2013). Studies have shown effective pain relief for those with osteoarthritis and fibromyalgia, also reduced swelling and inflammatory responses in various tissues. Increased circulation and stimulation of cellular repair processes can promote faster healing of soft tissues and even bone fractures. Patients often report increased flexibility and range of motion.

**CAUTION:** Any of them can interfere with the function of *implanted devices such as* pacemakers, defibrillators, and insulin pumps, and safety in *pregnancy* has not been established.

**What this means for you:** You need to find a nearby physician or chiropractor who has such an instrument in the office and more serious injuries are more of a challenge to heal. Before you consider purchase of any of the smaller devices for home use, try one or more devices to be sure you are comfortable with the therapy. <https://www.rehabmart.com/post/pemf-therapy-devices>

**Magnetic Pulser by SOTA Instruments - Your Personal Pulsed Magnetic Field  
Generator for General Health & Well-Being**

AMAZON LINK: <https://amzn.to/4jtbI2Z>

**OMI Pulsepad - Magnetic Field Therapy Pad - Natural Healing, Pain Relief and  
Good Mental Health**

AMAZON LINK: <https://amzn.to/40k3bH2>

**CRITICAL TIP:**

**Red Light Therapy** is also known as **Low-Level Laser Therapy** – utilizing specific wavelengths of red and near-infrared light to safely penetrate your skin and underlying muscles and soft tissues, to reduce pain, inflammation, and spasms. By enhancing cellular energy production and repair processes, RLT can aid muscle recovery post-exercise, reducing soreness and fatigue. Also documented are stimulation of collagen production, improvement of skin texture and reduction of wrinkles, scars, and acne.

**Red Light (630 - 700 nm)** penetrates the skin to a moderate depth and is commonly used for enhancing skin health and surface-level treatments. **Near-Infrared Light (800 - 880 nm)** penetrate deeper into tissues, addressing deeper muscle and joint issues. RLT is generally safe with few side effects, however appropriate eye protection is essential to prevent potential eye damage. My medical office device lists for \$10,000 – but you can achieve considerable at-home benefit for far less expense to treat your personal injuries.

**DGXINJUN Red Light Therapy Devices FDA Cleared Near Infrared 880nm Led**



**Wrap Back Pain Relief Pad Home Use Wearable Belt Deep Penetrating Body Joints Muscle Benefits**

AMAZON LINK: <https://amzn.to/3WwGgqR>

**UTK Red Light Therapy Device with 5 Wavelengths-(470:630:660:850:940nm) LED Infrared Red Light Therapy-Upgrade 470nm and 940nm Near Infrared Light**

AMAZON LINK: <https://amzn.to/3E3DgM9>

**2020 New LED Red Light&Near Infrared Light Therapy Devices Large Pads Wearable Wrap for Pain Relief Belt FDA Cleared Device**

AMAZON LINK: <https://amzn.to/40tjFfR>

**Topical Applications** – have been useful to provide comfort for many people.

**DMSO** – has long been known as “horse liniment,” due to its widespread use in animals. Medical authorities do *not* approve of its use for pain relief, so I present it here only for completeness and not as an endorsement for you to use it. Many patients have shared with me their success in applying over a painful area. You should know that DMSO liquid has long been approved by the Food and Drug Administration for use by doctors to treat an inflammatory chronic bladder condition, by infusing it directly into the bladder. **CAUTION:** Do *not* apply much, do *not* rub it in, do *not* bandage it. Some people noted that DMSO irritates their skin or creates itching. Others have found that mixing it with aloe vera gel or liquid has provided relief. If you choose to try this approach, selection of a safe concentration is essential. The 99+ percent product – liquid or gel – is the **ONLY** one to use for living beings, animal or human. The 70 percent one is an industrial cleaner and it might have various toxic chemicals that could sicken you.

**Dimethyl Sulfoxide (DMSO) in Trauma and Disease (book)**

AMAZON LINK: <https://amzn.to/3PMFUZu>

**The DMSO Healing Bible: [5 in 1] Harnessing Dimethyl Sulfoxide for Natural Treatments | Effective Solutions for Pain, Inflammation, and Chronic Conditions (book)**

AMAZON LINK: <https://amzn.to/42oppdu>

**DMSO 8 oz. Glass Bottle Non-diluted 99.995% Low Odor Pharma Grade Liquid**

AMAZON LINK: <https://amzn.to/3Cnm8R7>

**DMSO Gel with Aloe Vera, DMSO Gel 99.9 Pure for Pain Relief, DMSO Pharmaceutical Grade, Muscle & Joint Comfort, Relieve Inflammation, Reduces Swelling, Low Odor, Non-Gresay, 5 Oz**

AMAZON LINK: <https://amzn.to/40tkxkD>

**Capsaicin Cream** – is found in chili peppers, and it desensitizes nerve endings to provide topical (or systemic) pain relief. Many people complain that the burning/itching is too uncomfortable to tolerate.

**Globe (3 Pack) Capsaicin 0.1% High Potency Pain Relief Cream, Unscented (2 oz)  
Deep Penetrating Relief from: Arthritis, Muscle, Joint and Back Pain**  
AMAZON LINK: <https://amzn.to/40Gx8CC>

**Capzasin Capzasin Arthritis Pain Relief Quick Relief Gel, 1.5 oz (Pack of 3)**  
AMAZON LINK: <https://amzn.to/4h5Svmn>

**Menthol-based Creams** – are similar in their effect and use to capsaicin cream. For many years, **Ben-Gay** (now BENGAY) was the topical analgesic heat rub for temporary relief from muscle and joint pain associated with arthritis, bruises, simple backaches, overuse, sprains and strains. More recently, Thera-Gesic Pain Relieving Creme, ICY HOT Pain Reliving Cream, and Salonpas Deep Pain Relieving Gel have been introduced and each has a following.

**Sombra Warm Pain Relief Gel- (4oz Jar)**  
AMAZON LINK: <https://amzn.to/42p0Wot>

**Biofreeze 13566 Professional Menthol Roll-On Pain-Relieving Gel 3 FL oz Green, Backache, Strains, Bruises, & Sprains, Pack of 3**  
AMAZON LINK: <https://amzn.to/4jt6owD>

**Biofreeze Menthol Pain Relieving Gel Colorless Gel 4 FL OZ Tube for Pain Relief Associated with Sore Muscles, Arthritis**  
AMAZON LINK: <https://amzn.to/3E4wPc1>

**Bengay Ultra Strength Topical Pain Relief Cream, Non-Greasy Analgesic for Minor Arthritis, Muscle, Joint, and Back Pain, Camphor, Menthol & Methyl Salicylate, 2 oz**  
AMAZON LINK: <https://amzn.to/3PN7yW6>

**Topical Anesthetic (numbing) Gels and Patches** – have offered other choices to people, especially when wanting to avoid potentially dangerous reactions with oral pain relief medications. Salonpas has long been a leader in analgesic/anesthetic topical patches. ICY HOT now offers a combination product, lidocaine with menthol. BENGAY now offers an **Ultra Strength Pain Relieving Patch** with 5% Menthol.

**Salonpas LIDOCAINE Special 6 PACK Pain Relieving Maximum Strength Gel Patch!**  
AMAZON LINK: <https://amzn.to/40vgQLk>

**Lidocaine Numbing Cream Maximum Strength: Long Lasting Painless Topical Numb - Extra Relief with Lidocaine Menthol Arnica and Emu Oil 2.1oz/ 60g**  
AMAZON LINK: <https://amzn.to/4awvcQw>

**Icy Hot Original XL Pain Relief Patches, Powerful Targeted Relief for Back & Large Areas, 3 Count (Pack of 3)**  
AMAZON LINK: <https://amzn.to/4h5TDGD>

**BENGAY Ultra Strength Pain Relieving Patches Large Size 4 Each (Pack of 5)**  
AMAZON LINK: <https://amzn.to/4h3sVhT>

**Epsom Salt Baths** – have been claimed by many to be a simple, affordable, and sometimes helpful method to reduce pains and muscle spasms. The formula is easy: 2 – 3 cups of Epsom salt added to warm bath water, soaking for 15 – 30 minutes, 2 – 3 times per week. When dissolved in warm water, Epsom salt allows magnesium to be absorbed through the skin, helping muscles relax and decreasing inflammation and soreness. Deeper restorative sleep might result if done just before bed. **CAUTION:** Your tub bottom might be super-slick as you are getting out, so be very careful.

**Coach Soak Recovery Bath Soak - Faster Absorption Than Epsom Salt for Pain – Rejuvenating Magnesium Flakes with 21 Minerals, Essential Oils & Bath Salts, 3lbs (Unscented)**

AMAZON LINK: <https://amzn.to/4auIA7A>

□

**Ancient Minerals Magnesium Bath Flakes of Pure Genuine Zechstein Chloride – Resealable Magnesium Supplement Bag That Will Outperform Leading Epsom Salts 1.65 lbs**

AMAZON LINK: <https://amzn.to/3Egowto>

**Spasm Reduction** – can be critical in final resolution of neck and low back pains. Most physicians consider medications to be the primary treatment. However, several at-home options are available to you for relief.

### **CRITICAL TIP:**

**Shower Massage Head** – often finds delightful daily use, even after your acute problems have improved. You can choose to feel better within minutes, adjusting the pulsing pressure to your liking. You can install (without tools) a unit that does not have a long extension tubing with a handheld attachment for ease of “bathing” but many folks prefer the long flexible tubing. You will have years of enjoyment with your home spa shower! Be aware that many high-pressure heads have inside a small plastic flow restrictor that can be easily removed for more intense massage.

My patients agree with my advice to **stand facing away** from the shower head with your arms crossed in front of your chest, bend your head down with your chin “on” your chest, then tilt your head such that your **right** ear is “facing” toward your **right** elbow – then let the pulsing shower water “massage” your muscles from the top of your neck and across your **left** shoulder and down along the **left** side of your spine, next to your **left** shoulder blade. Your neck/head supporting muscles (“trapezius”) attach all along this area, down to your lower chest. Now “reverse” your head position, with your **left** ear facing your **left** elbow, so that the pulsing water can massage down the muscles of your **right** side. You have just learned how to find greater comfort at home, any time, even best just before bedtime.

**Shower Head with Handheld High Pressure: INAVAMZ Hand Held Shower Head & Rain Shower Head 2-IN-1 Shower Head with 59” Rotatable Stainless Steel Hose, Shower Trim Systems**

AMAZON LINK: <https://amzn.to/4hoL21J>

**Speakman, Brushed Nickel S-2005-HB-BN Hotel Anystream High Pressure Shower**

**Head-2.5 GPM Adjustable Replacement Bathroom Showerhead**

AMAZON LINK: <https://amzn.to/3WuJRpf>

**AquaDance High Pressure 6-Setting Full Brushed Nickel Handheld Shower Head with Stainless Steel Hose**

AMAZON LINK: <https://amzn.to/3PIZrtT>

**Handheld Vibrating Massage Units** – are convenient for targeted use, even while sitting on the couch or in your favorite chair, enjoying a low back or neck massage to relax tense muscles. These are surprisingly less expensive and can be used anywhere, even carried in your luggage, especially for longer or more challenging trips.

**Massage Gun Deep Tissue - Back Massager for Pain Relief Deep Tissue with Extended Handle, 12MM Percussion Less-Shock Neck/Foot/Leg/Shoulder Massager, Infinitely Adjustable Speed & 4 Replaceable Heads**

AMAZON LINK: <https://amzn.to/42oFDDm>

**opove M3 Pro 2 Massage Gun Deep Tissue Percussion Muscle Massager for Workout, Percussive Therapy Fascia Gun for Athletes Fast Recovery,**

AMAZON LINK: <https://amzn.to/3Q7aa1v>

**Massage Gun Deep Tissue with Extended Handle Revolutionary U-Shaped Back Massager, Body Massager for Neck, Shoulder, Leg**

AMAZON LINK: <https://amzn.to/3WwiOKh>

**Neck and Low Back Wrap-Around Massage Units** – are very popular because they are specifically designed to produce relief of muscle spasms in particular areas. Choose the one(s) that best meet your needs!

**SKG Foldable Neck Massager for Pain Relief Deep Tissue Vibration Cordless Massager, Portable 9D Electric Shiatsu Neck Massager**

AMAZON LINK: <https://amzn.to/3EiiDfh>

**Mirakel Shiatsu Neck & Back Massager with Heat - Deep Tissue Neck, Back & Shoulder Pain Relief - Ergonomic Design Shoulder Massager, Electric Kneading Whole Body Massage Pillow**

AMAZON LINK: <https://amzn.to/40maRsi>

**Heated Waist Belt, Cordless Heating Pad for Low Back, Electrical Heating and Massage, Rechargeable Battery Powered**

AMAZON LINK: <https://amzn.to/3E9TxQ0>

**Cordless Heating Pad for Back Pain Relief, 60" Large Portable Lower Back Massager with 3 Vibration and 3 Heat, Wearable Heating Pads for Cramps, 8000mAh Portable Power Supply Heated Waist Belt**

AMAZON LINK: <https://amzn.to/4ayeEHB>

**Deep Tissue Vibrating Massage Unit** – require assistance of your significant other – and you will enjoy every session you can convince them to provide! Chiropractors have long used similar units to assist with muscle relaxation during adjustments. Long-reach handheld massagers can be used without additional help.

**MedMassager Body Massager Orbital Electric Portable Therapeutic Handheld with 2 Speed Vibration for Pain Deep Tissue Massage Therapy, Back, Neck, Shoulder Relief MMB01**

AMAZON LINK: <https://amzn.to/4hthTCj>

**Body Sport Therapeutic Dual Speed Professional Vibrating Massager for Pain & Aching Muscle Relief – High-Powered, Effective, Chiropractic Myofascial Release Tool**

AMAZON LINK: <https://amzn.to/4gWzcfh>

**Core Products Jeanie Rub Variable Speed Massager, Deep Tissue Massage, Orbital Action for Back & Body, Premium Quality**

AMAZON LINK: <https://amzn.to/4atpApU>

A different approach for muscle relaxation preferred by some patients is a “whole body” massage platform:

**MERACH Vibration Plate Exercise Machine with Foot Massager, Office Vibrating Plate Exercise Machine for Weight Loss, 0-99 Levels Amplitude and Easy to Store, Acupressure Relieves Leg Fatigue**

AMAZON LINK: <https://amzn.to/4axvab4>

## **CRITICAL TIP:**

**Handheld Non-Vibrating Muscle Massage Unit** – can provide you years of relief from muscle spasms and pain. These non-vibrating units easily fit in your luggage or flight bag and you do not need anyone to help. You are entirely in charge, just be gentle and avoid deep pressure even though you think it “feels good” at the time.

**VOYOR Neck Massager Shiatsu Deep Tissue Dual Trigger Point Shoulder Massager for Pain Relief, Ergonomic Handle Design, Lightweight & Portable MS110**

AMAZON LINK: <https://amzn.to/4hkS0W1>

**Back and Neck Massager, Full Body Trigger Point Massage Tool, Massage Stick for Pain Relief, Pressure Point Massage Tool, Massage Cane, Massage Hook, Muscle Knot Remover**

AMAZON LINK: <https://amzn.to/4gZKv6u>

**Body Back AccuMassage - Dual Pressure Point Massage Tool & Massage Hammer – 2 in 1 Design - Shiatsu Neck Massager Tool, Golf Ball Percussion Massager for Deep Tissue**

AMAZON LINK: <https://amzn.to/3E8mA6r>

**Therapist’s Choice® Pressure Point Hook Cane, Back and Neck Massager for**

## Trigger Point Fibromyalgia Pain Relief and Self Massage

AMAZON LINK: <https://amzn.to/4jrWISX>

**Yoga** – focuses on poses that strengthen the core and back muscles while improving flexibility and posture. Many people have found that gentle posturing assists their recovery, others have found that yoga positions have aggravated their condition. **Tai chi**, carefully done, can produce similar relaxation, flexibility, and strengthening. **Take note:** Avoid **any** position that has you feel uncomfortable or strained. I encourage you to find a trained and certified instructor and a class convenient and tailored to your needs, rather than to attempt doing these positions on your own. Gentle **pilates** exercises might be very helpful as well to improve posture and flexibility, addressing pain from poor alignment.

Videos of interest: <https://yogawithadriene.com/free-yoga-videos>

In general, and especially for adults, I discourage deep squats, lunges, and resistance exercises that can stress your knees and create additional discomforts.

Video of interest: <https://blog.alomoves.com/movement/original-34-pilates-exercises>

**Neck and Low Back Exercise Programs** – are generally offered by treating physicians as a page or brochure, “Here, do these daily.” In my personal experience and with treating patients for almost 4 dozen years, I have found **little value** and sometimes worrisome risk with some of the maneuvers proposed. My advice has been uniquely successful by encouraging patients to frequently do the **Thompson Exercise** (described below), to do other programs (below) as appropriate for them, and to walk as able to maintain muscle tone and flexibility. Those who wish to do “work-outs” hear this advice regarding using lower weights: “Motion not Mass” or “Repetitions not Resistance.” While many people think such instructions are insufficient, I can assure you that avoiding straining that can extend your injuries or delay your recovery is most important. This advice applies as well to using “resistance bands,” which can be helpful for at-home exercise. Your key is to comfortably resume and practice usual range-of-motion activities ... you are not trying out for the Olympics!

I strongly discourage **any** “sit up”-types of exercises, because they can place additional stress across your lower back discs, especially “L4-5” and “L5-S1.” Much better for strengthening your abdominal support and core muscles is the “**sit back**” exercise originally described by Morehouse and Gross in their excellent 1976 at-home exercise book, **Total Fitness in 30 Minutes a Week.**”

The “start” and “end” position is your feet/heels on the floor (or hooked under furniture), knees raised, butt on the floor, sitting erect, arms crossed across your chest. Repeatedly lean back slightly, hold to a count of 10, then come forward again. As your muscles get stronger, you can lean back slightly more but *never* beyond 40 or 45 degrees at most. As you get even stronger, hold your arms with your hands next to your shoulders – yep, more of a challenge when you lean back. Stronger still, keep your hands next to your shoulders and raise your elbows “out” away from your body.

Need more of a workout? Hold your hands up, first next to your ears and later “up in the air.” If you want the ultimate challenge, hold a small can or other weight in each hand, extending your arms high above. Do not **ever** put your hands behind your head or neck where your movements would “pull,” since these positions can painfully worsen any neck injury or strain.



INTERNET LINK: **Total Fitness in 30 Minutes a Week**, Morehouse and Gross  
<https://zlib.pub/book/total-fitness-in-30-minutes-a-week-2l2f4u2l1l1t0>

**Total Fitness (hardcover book)**

AMAZON LINK: <https://amzn.to/3CjfqM1>

**Traction** – gentle distraction can relieve compression discomfort far more than you expect. Physical therapists and chiropractors provide various methods to stretch your spine. At-home stretching techniques are easy to use safely and can encourage muscle relaxation and realignment.

**Lower Back Stretcher Traction Device** – allows you to **relax lying down** while the shape of the support gently urges your muscles to allow your back bones to align more normally.

**Daiwa Felicity Orthopedic Back Stretching Support Stretch Mate for Back and Sciatica Pain**

AMAZON LINK: <https://amzn.to/3E9C7mr>

The premium design with several different applications:

**Klug Stretching Massager Ultra, Effortless auto-Stretching Mat, Ease Back & Neck Pain with 3 Intensity Levels 7 Exceptional Programs, 2 Levels of Heat Function, Foldable & Portable Design**

AMAZON LINK: <https://amzn.to/4hhYxAo>

I have *never* found that a pillow that *accentuates* the curve of your lower back to be comfortable but some people do, so here is an excellent choice:

**RESTCLOUD Back Stretcher for Back Pain Relief, Back Stretching Cushion, Chronic Lumbar Support Pillow Helps with Spinal Stenosis, Herniated Disc and Sciatica Nerve Pain Relief Lumbar Stretcher**

AMAZON LINK: <https://amzn.to/3PLWIW0>

I generally discourage use of “tilt tables” (such as the Teeter device; also the inversion boots where you hang upside down by your ankles in a doorway) because the stress on your other joints – especially after you tilt your head down *more than 30 degrees* – can be harmful. If you insist on having one and will limit your “inversion,” this is a decent choice:

**Innova ITM5000 Therapeutic Heat and Shiatsu Massage Inversion Table**

AMAZON LINK: <https://amzn.to/4gdP7oi>

**Lower Back Stretcher Traction Device** – allows you to stretch your spine while **standing in a doorway** in a belt support that gently urges your muscles to allow your back bones to align more normally. I personally used this kind of device for years with great comfort. You will need to order the inside-the-door-frame **support bar** as well.

**Mybow Back Stretcher Decompression Belt Lumbar Traction Inversion Table  
Alternative Spinal Decompression Machine Harness Back Stretching Realignment  
Device Herniated Disc Back Pain Relief (L 42~50")**

AMAZON LINK: <https://amzn.to/4hoVJkT>

A more expensive device is available if you are not comfortable securing a band around below your armpits or below your breasts. Again you will need to order the support bar as well.

**Spinal Decompression Devices Back Traction Stretcher Spine Decompression  
Machine Lumbar Traction Device for Lower Back Pain Relief Back Stretching  
Device Door Traction Pillow**

AMAZON LINK: <https://amzn.to/4hbtvu7>

**SUPPORT BAR** required for either of the above:

**Pull Up Bar for Doorway: Sportneer Strength Training Pull-up Bars without Screw  
- Adjustable Width Locking Mechanism Chin Up Bar, Thickened Steel Max Limit  
440 lbs Upper Body Fitness Pullup Bars for Home**

AMAZON LINK: <https://amzn.to/4g8DT15>

**CRITICAL TIP:**

**Over-the-Door Cervical Traction Device** – generally uses a water-filled “weight” bag to provide a steady pull on your head, gently stretching neck and lower muscles to encourage relaxation. This has long been one of my **most successful** recommendations, regardless of whether your main “injury” or “stress” is neck or upper or lower back – because it helps in reducing spasm over the full length of your spine. Advantages include minimal cost, ease of use, and adaptability to your changing condition.

Most people start with about 5 pounds of water, usually for 10 or 15 minutes. Increasing water weight by 1 or 2 pounds every day or so gradually allows you to find the most comfortable “setting” for once or twice daily at-home use, often discovering that 8 to 15 pounds of traction feels best for 15 or 20 minutes. (Three patients have needed 18 to 20 pounds for their best result ... WOW!) **Take note:** Instructions for use in the package are **WRONG** in my experience; they show you sitting in a chair facing *AWAY* from the door. I have always advised my patients to **sit comfortably FACING the door**, with your toes touching it – that provides the correct distance and alignment, with your head facing slightly forward and slightly looking down. **ALSO** – I encourage purchase of a **better fitting “harness”** (below) that reduces any feeling of “choking.”

**DMI Over the Door Posture Corrector and Cervical Neck Traction Device for  
Physical Therapy, FSA HSA Eligible Neck Stretcher, Back Stretcher, Neck Pain,  
Migraine Relief, Back Pain or Arthritis**

AMAZON LINK: <https://amzn.to/3E6oEf3>

This is a suitable variation *without* a water-bag weight – again, use it *facing* the door.:  
**Cervical Neck Traction Device for Home Use, Portable Neck Stretcher Hammock  
Over Door for Neck Pain Relief, Neck Sling for Spine Decompression**

AMAZON LINK: <https://amzn.to/3Wp0SkD>

This is a better fitting harness, well worth the investment for comfort:



**Neck Harness for Pain Relief Cervical Traction Device Neck Stretcher Hammock Portable Spinal Decompression Devices Over The Door Traction Unit Neck Sling Arthritis Back Neck Traction Physical Therapy**  
AMAZON LINK: <https://amzn.to/4jpRMOG>

This is a variation that I have used with good success (lying on the bed):  
**The Original Neck Hammock Neck Stretcher - Cervical Traction Device for Neck Decompression - Portable Device for Neck Tension Relief**  
AMAZON LINK: <https://amzn.to/4aumkuw>

*And consider ...*

This stand makes using the above neck hammock easy:  
**Neck Stretcher Hammock Stand for Neck Decompression, Cervical Traction Device Stand Steel Heavy Duty, Neck Decompressor Neck Stretching Strap Stand Frame for Neck Tension Relief, Stand Only**  
AMAZON LINK: <https://amzn.to/42kYGj7>

**Intersegmental traction** – is a professional approach that sometimes produces surprisingly quick results in relieving pain and reducing muscle spasms. Treatment involves a specialized table, commonly referred to as Spinalator-style, to repeatedly stretch then relax your spine while you lie comfortably on your back. These are available almost exclusively in chiropractic clinics and require professional management. Combined with gentle adjustments, these have helped countless patients over many decades.

I have used this odd-looking contraption with good success to provide traction from my lower rib spine all the way down to my pelvis:  
**Mybow Back Stretcher Decompression Belt Lumbar Traction Inversion Table Alternative Spinal Decompression Machine Harness Back Stretching Realignment Device Herniated Disc Back Pain Relief (L 42~50")**  
AMAZON LINK: <https://amzn.to/4gb5ceo>

*And again ...* You must have a support bar mounted in the door frame to use the back stretcher above:

**Pull Up Bar for Doorway: Sportneer Strength Training Pull-up Bars without Screw - Adjustable Width Locking Mechanism Chin Up Bar, Thickened Steel Max Limit 440 lbs Upper Body Fitness Pullup Bars for Home**  
AMAZON LINK: <https://amzn.to/4g8DT15>

## **CRITICAL TIP:**

Many **lumbar “pillows”** or support devices are intended to maintain your lower back *curve* while lying on your back for sleep. My experience has been *entirely opposite* of that, where your muscle spasms will correct more readily if, while lying on your back, couch pillows are placed under your *thighs and knees*, such that your *lumbar spine is straightened flat* against the bed. You can use heat or cold as desired for comfort. Bed pillows do *not* work well, since they easily compress. Couch pillows, wedge pillows, or large triangular foam blocks work *much* better. To sleep on your side, you simply roll slightly either way so that your knees can still be

drawn up as they come off the pillow and down to the bed. During the night (or your nap), you can easily roll again into the knees-high supported position on your back. This “fetal position” (knees drawn up) is often very comfortable for those with lower back injury, spasm, and pain.

**5 STARS UNITED Knee Pillow for Back Sleeping - Memory Foam Cushion - Under Leg Support for Sleeping on Back - Half Moon Bolster for Bed**

AMAZON LINK: <https://amzn.to/3WsZldz>

**Knee Wedge Pillow 8” for Post-Surgery Recovery - Leg Elevation Support for Sleep Position, Alleviating Lower Back & Hip Pain Enhancing Circulation in Ankles Legs Triangle Pillow with Removable Cover**

AMAZON LINK: <https://amzn.to/3Wtk1C6>

## **CRITICAL TIP:**

The **Thompson Exercise** – has long been one of my *most successful secrets* in helping patients comfortably recover from any neck, mid-back, or low back pain syndrome. This is an easy, safe, and even enjoyable “self-traction” maneuver that can be done almost anywhere and anytime by virtually everyone. Alec Thompson was one of the early physicians providing “prolotherapy” (described below) to his patients – a treatment injecting small amounts of naturally irritating fluid to stimulate healing and strengthening of weakened or torn supporting tissues. Blood flow is limited in these connective tissues, so they fail to repair to become as strong as they were before injury ... so people can suffer repeated episodes for years. These injections create a *healing* inflammation pattern, allowing these connective tissues to “proliferate” (grow thicker and again stronger), hence the name prolotherapy.

Dr. Thompson was seeking ways to help his neck and back injury patients become more comfortable and healed more quickly. He developed this “exercise” to promote better alignment of your spine, allowing muscles to relax rather than stay in spasm trying to limit your injury “wobble,” so healing can proceed easily. Basically you sit toward the front a chair, spread your knees to 90 degrees (like the corner of a table), and *gently* lean forward, drooping your head and hands toward the floor. Be careful that the chair doesn’t “throw” you off! I encourage my patients to do what I call “TEN-X”: 10 times a day, “go down” 10 times, each to a count of 10. Those who embrace this advice as a *daily habit* are much happier and heal faster. Dr. Thompson taught me this excellent assist in 1992 and I have taught it to every one of my patients since!

He developed several variations that correctly stretched the lower back, and this one is my favorite. Click to download and print my brochure, to share with everyone.

ON-SITE LINK: Download my office brochure on THE THOMPSON EXERCISE giving you more details.

**Dr. Thompson’s new way for you to cure your aching back (book)**

AMAZON LINK: <https://amzn.to/40JmXNw>

**Stabilization** – to reduce painful wobble and weakness, this was critical in my personal recovery with low back pain. When acutely injured, I actually was able to work during the day without need for any medications by wearing a “lumbar corset” then a “blue-ice cold pack”

which was held in place by wrapping around a larger such “corset” or brace. At noon, we’d change out the ice pack for a new one to help me through the afternoon.

## **CRITICAL TIP:**

**Lumbar Back Brace / Brace for Lower Back Pain** – during more acute episodes can be worn under or over your clothes to provide relief by supporting your upright posture. I found myself more comfortable by frequently “switching off,” using two or more different braces or corsets on different days. **CAUTION:** Few medical professionals understand that these supportive devices need to be **positioned low**, with the bottom 3 or 4 inches tightened to compress your pelvis where you feel the bony prominence of the top of your thigh bone, and extending “up” from there. During the day, you might occasionally loosen the upper segments for better belly comfort. *Most* illustrations show the corset placed several inches higher, above your thigh bone prominence, which I strongly discourage, because it can actually *increase* stresses across your lower lumbar discs. Even the ones I recommend below have instructions and illustrations showing the positioning *too high*.

**Copper Fit X-Back Brace for Lower Back Pain, Lumbar Support, Herniated Disc, Sciatica, Arthritis – Adjustable, Breathable Design - for Men and Women**

AMAZON LINK: <https://amzn.to/4avLyIM>

**Back Brace for Lower Back Pain Relief, 8X Powerful Lumbar Support with 3D Pad, Back Support Belt for Men Women, Breathable Back Support Brace with Adjustable Strap**

AMAZON LINK: <https://amzn.to/3E3KGz7>

When I was acutely uncomfortable but felt the need to be up and around and not using medications for discomfort, I would place an ice pack on my lower back and cinch the lumbar support brace over it, to hold in place. I had several, so I could switch as one warmed up.

**Chattanooga ColPac Reusable Gel Ice Pack Cold Therapy for Knee, Arm, Elbow, Shoulder, Back for Aches, Swelling, Bruises, Sprains, Inflammation (11”x14”)**

AMAZON LINK: <https://amzn.to/40KfldQ>

## **CRITICAL TIP:**

**Sacroiliac “Hip” Belt** – is a much narrower support (just 4 inches) than a full length corset, often all that is needed for those with very low back discomforts. Many years ago, I used “weightlifter web belts,” but now specific items are made that are much more comfortable while producing the desired stabilization. As with lumbar corsets above, I found that “switching off” different belts was often more comfortable while I was recovering. In times past, I carried a belt in my luggage when on business trips, in case I might twist or lift and thus provoke lower back discomfort. You should be sure that you have recovered sufficiently that this would *not* become a problem, recovered *completely* so that you are able to safely exercise flight duties. As with the lumbar braces above, my experience is that the lower you wear your belt, the better support it provides – you might have to loosen it slightly to sit down.

**Sacroiliac SI Joint Hip Belt - Lower Back Support Brace for Men and Women - Pelvic Support Belt - Trochanter Belt - Sciatica Pelvis Lumbar Hip Pain Relief - FSA HSA Eligible**

AMAZON LINK: <https://amzn.to/4atv7Nc>

**Sacroiliac Hip Belt for Women and Men That Alleviates Sciatic, Pelvic, Lower Back, Leg and Sacral Nerve Pain Caused by SI Joint Dysfunction| Hip Brace**

AMAZON LINK: <https://amzn.to/3Ww7uxI>

**Thoracic (Mid-Back) Spine Posture Support** – is a device that can provide substantial comfort to someone who has injured their upper torso spine or at least strained muscles and/or support tissues (ligaments, tendons) thereby creating spasms and persisting pain. I call this area the “rib spine,” since your ribs act as stabilizers, attaching to your breastbone in the front and your spine vertebral bones in the back. This configuration makes chiropractic adjustments much more difficult than for your neck or low back, which lack such rib stabilization. People who have injured or strained their “thoracic” or “rib spine” are quite uncomfortable and cannot “get away” from nagging discomfort by twisting or leaning. Massage can help to relax muscles ... but only briefly. Wearing a posture support such as this that I recommend can help resolve the misalignment or injury for some people – and the Thompson Exercise (described above) can be invaluable to help as well. Intersegmental traction and a program of chiropractic care are often required for resolution of mid-back discomforts.

**TLSO Thoracic Medical Back Brace L0456 L0457 - Back Pain Relief for Fractures, Post Op, Herniated Disc, DDD and Spinal Trauma, Mild Scoliosis, Kyphosis - For Men or Women Size Fits Waist 23” to 50”**

AMAZON LINK: <https://amzn.to/40tArvI>

**Back Brace Posture Corrector for Women and Men, Upgraded Full Back Brace Support, Adjustable Shoulder Back Support, Upper and Lower Back Pain Relief - Scoliosis, Hunchback, Hump, Thoracic, Spine Corrector (Large)**

AMAZON LINK: <https://amzn.to/4bmYjpK>

## **CRITICAL TIP:**

**Down Pillows for Neck Comfort** – are exactly *opposite* what many people recommend, but these soft down pillows can be spectacular for better sleep. Molded “support” pillows are often advised to offer stabilization for your neck (and upper back) in order for you to sleep more comfortably. Having had 2 neck operations, I have tried *every* type of pillow, and most of them positioned my head in ways I found annoying. What has *always* worked best for me is a **king size down pillow by DownLite**. Unlike all other pillows, a “soft” one like this can be molded to the shape and position you want – and easily changed through the night as you roll into different positions. Using it is simple: regardless of your sleeping choice (side or back): lie down with the pillow under your neck and head and repeatedly “cram it” to adjust and find just the right support for “right then.” As you change positions during the night, you can easily readjust the pillow support. I have been so thrilled with finding how easy this down pillow can be “stuffed” to adapt to my needs that it is always the last item that I cram into my suitcase for any travel.

**DOWNLITE 3-in-1 Adjustable White Goose Down Pillow - King Size, 20” x 36” - Hypoallergenic Cotton Fabric, Firm, Medium or Soft Density Options to Suit All Sleepers - Machine Washable/Dryable**

AMAZON LINK: <https://amzn.to/4hp0nPR>

If you are allergic to down or feathers, here is a good alternative:

**DOWNLITE 3-in-1 Adjustable Down Alternative Pillow by Stearns & Foster™ (Hypoallergenic) - King**

AMAZON LINK: <https://amzn.to/3E7Qis8>

**Craniosacral Therapy** – is available rarely and poorly understood and almost never accepted in conventional medicine, since there are few trained practitioners. This gentle, hands-on method focuses on encouraging stretching to relieve compression in the from your head and neck all the way down your spine. Many people can enjoy pain relief and improved function during your time of recovery from injury. If you are able to locate a skilled practitioner, you might be someone who responds well to this calm realignment technique. Be sure to ask regarding their training, experience, and approach to treatment. One directory that lists Registered Craniosacral Therapists (RCST®) who have completed extensive training is maintained by the Biodynamic Craniosacral Therapy Association of North America (BCTA/NA): <https://www.craniosacraltherapy.org/find-a-practitioner-page?>

**At-Home Office Back Support Chair** – If you are someone with a long-term interest in promoting better spine health so you can pursue your flying career better, consider investing in a chair that can provide you years of comfort. Reasonably priced chairs can give you good value; premium chairs are priced 3 and 4 *times* higher, an expense that does not necessarily improve its results for you.

Some guidelines are useful for your recovery and continued wellbeing, whether seated at home or in your office. The “right” chair must be paired with good posture habits, periodic movement, and personally arranged workstation at the best height for you, to address neck and back pain issues. When sitting, your feet should rest flat on the floor or a footrest, with your knees and hips at the same level. Reclining slightly can help distribute your upper body weight and reduce spinal stress. Armrests help to keep your arms and shoulders relaxed, in a neutral position. Align your computer monitor screen at eye level, with your keyboard and mouse roughly at elbow height. If you spend time on calls, consider a mobile phone stand or a headset or speaker phone. A headrest that can be moved up or down to match your height and tilted to cradle your neck can be helpful. Set a timer to remind you to stand or at least stretch every 30 to 60 minutes. These recommendations can help reset your posture and help relieve muscle tension and pain.

**Ergonomic Mesh Office Chair with 3D Adjustable Armrest,High Back Desk Computer Chair Ergo3d Ergonomic Office Chair with Wheels for Home & Office**

AMAZON LINK: <https://amzn.to/3CnXNuv>

If you choose to get a **recliner** that could assist in your recovery and long-term comfort, it is blissfully relaxing to sink into the plush seat of a perfect sleep chair to unwind and relax without suffering from stiff joints and strained muscles. A properly chosen recliner can even allow you sleep on it for the entire night without experiencing the discomfort and stiffness inherent to traditional sofas. Sleep recliners can be selected with additional features, such as massages and heaters, to improve your experience. Cradled comfort during your rest can revitalize sore muscles while massages relieve aching joints for refreshed mornings. You should, however, know that these dedicated furniture items come with a premium price tag, perhaps \$3 – 4,000. Here are some value-priced alternatives that should meet the needs of many people.

This zero-gravity recliner by Human Touch® is designed to reduce spinal pressure and improve circulation, offering adjustable lumbar support for personalized comfort.

**Perfect Chair Human Touch PC-610 Omni-Motion Classic Power Recline Zero Gravity Recliner Supreme Upholstery Package Matte Black Wood Stain - Black Premium Leather**

AMAZON LINK: <https://amzn.to/3Ev02wP>

Featuring a plush design, this one offers a continuous zone of comfort with options for adjustable headrest support, a zero-gravity reclining position for an ergonomic and comfortable seating experience.

**CHITA Power Zero Gravity Recliner Chair, Genuine Leather Recliner Chair for Adults, Adjustable Reclining Sofa Lounge with Hidden Slide-Out Cupholders, USB and Type-C Ports**

AMAZON LINK: <https://amzn.to/3CF7mW2>

This two-motor power lift and recline chair features an adjustable active seat that gently cradles your body in optimal ergonomic positions like TV watching, zero gravity, sleep, and Trendelenburg for rejuvenation. Dual Motor Infinite Positioning: The independent footrest and backrest motors allow you to find your perfect recline position with infinite customization.

**Golden Technologies Cloud PR510 MLA Medium/Large Dual Motor Infinite Position Lift Chair Zero Gravity Recliner**

AMAZON LINK: <https://amzn.to/3Ev1KOL>

This chair features a dual-motor system that allows smooth adjustments from upright to fully reclined positions, ideal for those with mobility issues or seeking extra comfort. Comprehensive Massage and Heating: Enjoy 8 vibration nodes, 5 massage modes, 3 intensity levels, and lumbar heating, providing a customizable and soothing massage experience.

**Power Lift Recliner Chair for Adults Elderly Lay Flat Leather Recliners with Massage Heating, Extended Footrest, Wireless Charging Device, USB Ports, Cup Holder, Lumbar Pillow**

AMAZON LINK: <https://amzn.to/3WQ2Hr0>

## **Startling Hack: Restoring Strength to Injured Tissues**

### **CRITICAL TIP:**

**Prolotherapy** – has been the crown jewel in my almost *3 dozen years* of returning *seriously* injured patients to happier, productive lives. The treatment is easy to understand: injecting a small amount of naturally irritating fluid in points to stimulate healing and strengthening of injured joints and weakened or torn supporting tissues. Blood flow is limited in these connective tissues, so they fail to repair to become as strong as they were before injury ... so people can suffer repeated episodes for years. The irritant “fakes” your body into thinking that you were reinjured, so you repeatedly *restart* a healing process that, over time, can strengthen your tissues literally back to normal. These injections create a *healing* inflammation



pattern (different than a **hurting** inflammation), allowing these connective tissues to “proliferate” (gradually grow thicker and again stronger), hence the name prolotherapy. I use several different fluids, depending on what works best for you – also ozone activated oxygen, called “prolozone,” which is a wonderful tissue repair stimulant. Those who are less seriously injured can recover more quickly, especially when treatment is started early and pursued consistently.

As you might expect, this procedure should be done by a physician with training, skill, and experience, to avoid unwanted risks. My experience has been that virtually every joint that I can reach with a needle can show improvement with prolotherapy – even TMJ “jaw joint” discomforts. (TMJ issues almost always result from significant neck injuries of any kind, so complete treatment can dramatically improve comfort for the future.). You might find a competent physician near you, but we are few and far between, so many patients travel to see me for care, staying for 2 to 3 days every few weeks until all better. You can check with The American Osteopathic Association of Prolotherapy Regenerative Medicine, one of the organizations where I trained for many years: [aoaprm.com](http://aoaprm.com).

**PAIN PAIN GO AWAY: Free Yourself From Chronic Pain NEW EDITION (book)**  
(2007) – I wrote the last chapter, detailing my recovery from severe joint injuries due to (genetic) ligament laxity syndrome

AMAZON LINK: <https://amzn.to/4jDmKD8>

**DO WHAT YOU WANT TO DO (book), 1995**

Dr. Faber was my co-author

ON SITE LINK: Coming soon

**BONES AND BANDS** Office Brochure on Prolotherapy

ON SITE LINK: Coming soon

ON SITE LINK: AUDIOS – Coming soon

ON SITE LINK: VIDEOS – Coming soon

If you have an “engineering background” and would like to see how your body is wonderfully made, an excellent book, **Anatomy Trains**, gives a clear and persuasive understanding of how support tissues work to keep you smoothly strong.

**Anatomy Trains: Myofascial Meridians for Manual Therapists and Movement Professionals 4th Edition (book)**

AMAZON LINK: <https://amzn.to/3WtYsl8>

**Stem Cell Injections** – are recent biological advances that I have for years used successfully in helping to heal neck, back, and joint injuries. Unfortunately the FDA arbitrarily ordered a halt to the distribution of umbilical cord stem cells across the country. The premier laboratory that I used had never had a deficiency with an FDA inspection over many dozen years. Hopefully newer reviews will result in these valuable treatments again becoming available, so that people do not have to travel to foreign destinations and pay substantial sums to receive cells of uncertain origin and quality. With my master’s studies in nutritional medicine and my considerable expertise in healing tissues, my stem cell program (much more than simply injections) was both affordable and robust in its results.

**CAUTION:** Any number of “clinics” in the United States promote their “stem cell” treatments as though the FDA had never intervened. Donors of umbilical cord cells must be carefully screened, the cells must be precisely harvested, and their final acceptance must result from comprehensive lab studies. This is “Buyer Beware” at its most critical: false representations are simply fraud! Some people explain that they obtain your (aging!) bone marrow cells and inject them; others simply spin down your blood and suck off the “buffy coat” containing platelets and inject those (“PRP,” platelet-rich plasma). Neither of these are the treatments I used for years ... and *their* treatment success can be limited even though expensive.

**Failure is Not an Option: Our “Stem Cells” can repair your painful injuries, arthritis, and more (book)** 2017, detailing years of successes with my comprehensive Stem Cell Program (hopefully this intensely successful and safe treatment will again be allowed by the FDA)  
ON SITE LINK: Coming soon

## **Nutritional Hacks – Supplements for Comfort and Healing**

**Take Note: Just as combining various physical approaches can help accelerate your healing, also combining various nutritional supplements can amplify the biochemical processes that reduce inflammation and spasm and promote repair. The few “CRITICAL TIP” items taken together form a sound basis for your recovery.**

A dietary supplement is a product taken by mouth that contains a “dietary ingredient” intended to supplement the diet. These may include vitamins, minerals, herbs or other botanicals, amino acids, and substances such as enzymes, organ tissues, glandular extracts, and metabolites. They can also be extracts or concentrates, and may be found in many forms such as tablets, capsules, softgels, gels, liquids, or powders. Supplements commonly used include vitamins, minerals, protein, and various other performance-enhancing compounds. If a pilot experiences side effects such as excessive drowsiness, cognitive slowing, or dizziness from an amino acid, you must stop use and consult your AME.

Flight Surgeons (FS), Aviation Medical Examiners (AME), and other Aviation Medical Officers (AMO) should inform, educate and regulate the use of nutritional supplements as a method of exercising Operational Risk Management. Medical officers shall not recommend the consumption of dietary supplements for medical conditions, performance enhancement or health maintenance. Keep in mind that natural products are not always necessarily safe and dosages must be limited by relevant directions on product labels. **14 CFR § 91.17** – Prohibits the use of any substance that impairs faculties while operating an aircraft.

Airmen should not fly while using any medication, prescription or OTC, or any dietary supplement that carries a label precaution or warning that it may cause drowsiness or advises the user “be careful when driving a motor vehicle or operating machinery.” At least one-year of post-marketing experience to assess possible effects of a new drug is required before considering for certification for flight duties. Airmen newly starting a medication or any kind of a dietary supplement should refrain from any flight operations for at least the first 24 hours. Effects of ingested products vary from person to person and any item can interact adversely to others being properly used. Discuss any questions or concerns with your AME.

### **CRITICAL TIP:**



**Omega-3 Fatty Acids (Fish Oil)** – Rich in EPA and DHA, which are potent anti-inflammatory agents; found in fish oil or algae-based supplements. As a culture, Americans are chronically deficient to meet their needs, especially for any injuries. Daily dosage 2 or more twice daily – more controls inflammation even better.

**Biotics Research Biomega 500 Omega 3 Fish Oil Supplement, Highly Concentrated Fish Oil with EPA/DHA, Omega 3 Fatty acids, Supports Immune and Cardiovascular 90 Softgels**

AMAZON LINK: <https://amzn.to/4jvaW5y>

**Nordic Naturals Ultimate Omega, Lemon Flavor - 210 Soft Gels - 1280 mg Omega-3 - High-Potency Omega-3 Fish Oil with EPA & DHA - Promotes Brain & Heart Health - Non-GMO - 105 Servings**

AMAZON LINK: <https://amzn.to/4hscWK5>

### **CRITICAL TIP:**

**Curcumin (Turmeric Extract)** – The active ingredient in turmeric spice; reduces inflammation by inhibiting chemical inflammatory pathways (like NF-kB). As with many other supplements, can be best absorbed when paired with black pepper extract (piperine) or also dietary fats such as butter or olive oil. Daily dosage 1 or 2 twice daily.

**THORNE Curcumin Phytosome 1000 mg (Meriva) - Clinically Studied, High Absorption - Supports Healthy Inflammatory Response in Joints, Muscles, GI Tract, Liver, and Brain - 60 Capsules - 30 Servings**

AMAZON LINK: <https://amzn.to/3E99uWA>

**Boswellia Serrata (Frankincense)** – Contains boswellic acids that block natural leukotrienes, chemicals which cause inflammation. Daily dosage 1 or 2 twice daily.

**Pure Encapsulations Boswellia Supplement - for Joint Health, GI & Connective Tissue - Supports Healthy Joints & Digestive Health\* - Non-GMO & Vegan - 120 Capsules**

AMAZON LINK: <https://amzn.to/4g4yOKw>

### **CRITICAL TIP:**

**Resveratrol** – A powerful antioxidant and anti-inflammatory compound found in grapes and red wine, works especially well when paired with curcumin. Daily dosage 1 or 2 twice daily.

**Vital Nutrients Resveratrol | Ultra High Potency Antioxidant | Trans Resveratrol for Cardiovascular and Cell Health Support\* | Vegan Supplement | Gluten, Dairy and Soy Free | Non-GMO | 60 Capsules**

AMAZON LINK: <https://amzn.to/3C9L921>

**Quercetin** – A (bio)flavonoid with exceptional anti-inflammatory properties, particularly effective in reducing commonly produced histamine-related inflammation. Daily dosage 1 or 2 twice daily.

**Pure Encapsulations Quercetin - 500 mg - Immune Support, Cellular Health & Heart Health - Antioxidant Supplement - Gluten Free & Non-GMO - 60 Capsules**  
AMAZON LINK: <https://amzn.to/3C9U6bV>

**Alpha-Lipoic Acid (ALA)** – An antioxidant compound that decreases oxidative stress and inflammation, promoting healing. Daily dosage 1 or 2 twice daily.

**Alpha Lipoic Acid 600 mg - ALA Supplement for Liver Support, Antioxidants, Nerve Health, Cardiovascular Health & Carbohydrate Support - Premium Alpha Lipoic Acid - 120 Capsules**  
AMAZON LINK: <https://amzn.to/42rvHJE>

### **CRITICAL TIP:**

**Vitamin D3** – An essential vitamin that reduces chronic inflammation and supports immune system regulation, among many other functions. Laboratory reports often suggest a normal range for Vitamin D3 as low as 20 or 30, but patients do much better in many ways when their blood level is between 80 and 100. (One recent study showed dramatic resistance to suffering adverse effects of “the flu” when level was above 50.) Daily dosage 1 or 2 twice daily – have your doctor order a blood test for “Vitamin D3” – if your level is below 40, you certainly need to take for 4 or more months and get a recheck later. A study done during the recent viral infections showed that those with a level above 30 were unlikely to die, those above 50 were unlikely to be so sick as to require hospital care.

**Pure Encapsulations Vitamin D3 125 mcg (5,000 IU) - Supplement to Support Bone, Joint, Breast, Heart, Colon, and Immune Health\* - with Vitamin D - 60 Capsules**  
AMAZON LINK: <https://amzn.to/3PO8MAI>

**Ginger** — (Zingiber officinale) – Contains gingerols and shogaols that reduce inflammatory markers, help reduce pain and promote healing. Daily dosage 1 or 2 twice daily.

**Herbal Roots Ginger Supplement | Organic Ginger Root Capsules | 1,200 mg of Pure Ginger Powder per Serving | 60 Vegan Capsules**  
AMAZON LINK: <https://amzn.to/42nedxJ>

### **CRITICAL TIP:**

**Magnesium** – An essential mineral involved in hundreds of biochemical reactions, important for muscle spasm relaxation, reduced anxiety, better sleep and energy, and promotion of healing, especially connective tissues. Daily dosage 1 or 2 or more twice daily. If you suffer with constipation, more magnesium often helps.

**MagTech Magnesium Supplement - Chelated Magnesium Complex - 3 Forms of Magnesium: Magtein Magnesium L-Threonate, Glycinate & Taurate - Supports Relaxation & Brain Health\*, 90 Magnesium Capsules**  
AMAZON LINK: <https://amzn.to/3PMRNyV>

**Metagenics Magnesium Glycinate - Highly Absorbable Magnesium - Magnesium Glycinate for Nervous System Support\* - Gluten-Free - Non-GMO - Vegetarian - 240 Tablets**

AMAZON LINK: <https://amzn.to/4g5tjeJ>

**Valerian Root** – (*Valeriana officinalis*) – An herbal preparation that helps relax muscle spasms, which can greatly aid your comfort. Daily dosage 1 or 2 or more as often as needed, especially at bedtime.

**Herbal Roots Pure Organic Valerian Root Capsules - 900 mg - Non-Habit Forming with no Melatonin, Non-GMO - 60 Count Vegan Capsules**

AMAZON LINK: <https://amzn.to/40vXN3s>

### **CRITICAL TIP:**

**Kaprex** – One of my **most valuable additions** to a recovery program, an advanced-design supplement that helps to reduce your perception of pain without interfering with any functions that could affect performance of flight duties. Daily dosage 1 or 2 every 4 to 6 hours for pain.

**Metagenics Kaprex, Selective Kinase Response Modulators for Joint Comfort, Plant Based - 60 Softgels**

AMAZON LINK: <https://amzn.to/4jlUV21>

### **CRITICAL TIP:**

**Vitamin C** – A traditional supplement that aids healing and health maintenance in so many ways, an antioxidant that helps to reduce inflammation and promotes faster repair. I usually have you start with a low dosage – say, 1,000 mg twice daily, okay with food or liquids if you wish – then gradually increase (higher doses, more often during the day) to the point of “bowel tolerance” (that means “loose stools”) then back off to lower, tolerable doses.

**Pure Encapsulations Ascorbic Acid Capsules - 1,000 mg Vitamin C - Antioxidant & Immune Support\* - High-Potency Vitamin C - Vegan & Non-GMO - 250 Capsules**

AMAZON LINK: <https://amzn.to/4jvh5i8>

Sometimes more easily tolerated for those who have difficulty with higher doses:

**Liposomal Vitamin C Capsules (200 Pills 1500mg Buffered) High Absorption VIT C, Immune System & Collagen Booster, High Dose Fat Soluble Immunity Support Ascorbic Acid Supplement, Natural Vegan**

AMAZON LINK: <https://amzn.to/3PK4U3D>

**THORNE Vitamin C - Blend of Vitamin C and Citrus Bioflavonoids from Oranges - Support Immune System, Production of Cellular, Collagen Production and Healthy Tissue - Gluten-Free - 90 Capsules**

AMAZON LINK: <https://amzn.to/4ju6cgM>

**Metagenics Ultra Potent-C 1000 - Gentle, Buffered Vitamin C Supplement - Immune Support Supplement\* - Ascorbic Acid - 90 Tablets**

AMAZON LINK: <https://amzn.to/40u0Au9>

## **CRITICAL TIP:**

**Glucosamine and Chondroitin** – These natural compounds are building blocks of cartilage, the connective tissue in joints, between your bones. Daily dosage 1 or 2 twice daily, more for more serious injuries.

**Pure Encapsulations Glucosamine Chondroitin *with MSM* - Supports Joint Health & Normal Cartilage Formation**

AMAZON LINK: <https://amzn.to/4hiOAm6>

**THORNE Glucosamine & Chondroitin - Support to Maintain Healthy Joint Function and Mobility - 90 Capsules**

AMAZON LINK: <https://amzn.to/4azelfF>

**Designs for Health Glucosamine Chondroitin - Glucosamine Sulfate + Chondroitin Sulfate Supplement - Supports Healthy Joint Function (120 Capsules)**

AMAZON LINK: <https://amzn.to/4hty1DU>

## **CRITICAL TIP:**

**Collagen Peptides** – provide the cellular building blocks to help repair and strengthen injured supporting connective tissues, so you can heal faster and better. Regardless of whatever approaches you embrace for healing and repair, lack of supplementation might be the “missing ingredient” that could delay your recovery. Collagen is the most abundant protein in your body, what holds you together and provides strength and support. Your body produces progressively less every year after age 30 – for women, the decline can be even more dramatic after menopause. This is a major reason why aging adults heal less rapidly and less well.

Two of the many collagen types are most important: Type I is found in bones, joints, tendons/ligaments, skin, hair, and nail; Type III is found in the skin, muscles, gut lining, and blood vessels. Grass-fed cattle are raised without antibiotics, hormones, and other dangerous toxins that can end up in your collagen product or in many other supplements as well. Heavy metals have been identified in many collagen supplements: arsenic, cadmium, lead, and mercury. Almost 30,000 supplements are marketed in the United States; over 1,000 new ones appear each year. Just as with foods you purchase (witness frequent market recalls!), pesticides, toxic metals, bacteria, and organic and other contaminants have been found in many nutritional products when tested. You are depending on the integrity of the manufacturer to protect your exposure ... and on your advisor to make sound recommendations. That is one reason why I studied to earn a master’s degree in nutritional medicine in 1985.

Healing requires that you take 10 to 20 grams daily, stirring into your morning coffee, tea, juice, smoothie, or water – or just powdering onto food. Even after your neck or back or other joint discomforts are resolved, you might find daily collagen to be a valuable complement for healthier aging.

**Collagen Peptides *Powder* - Grass-Fed, Pasture-Raised Hydrolyzed Protein Supplement for Skin, Hair, & Nails - Non-GMO, Zero Sugar Daily Supplement for Men & Women (30 Servings)** – (Types I and III, *NO* egg)

AMAZON LINK: <https://amzn.to/3WxwS6t>

**Collagen Peptides *Capsules* - Grass-Fed, Pasture-Raised Hydrolyzed Protein Supplement for Skin, Hair, & Nails - Non-GMO, Zero Sugar Daily Pills for Men & Women (180 Capsules) – (Types I and III, *NO* egg)**

AMAZON LINK: <https://amzn.to/3PTChkh>

**Zint Collagen Peptides *Powder* (32 oz): Paleo-Friendly, Keto-Certified, Grass-Fed Hydrolyzed Collagen Protein Supplement - Unflavored, Non GMO – (Types I and III, *NO* egg)**

AMAZON LINK: <https://amzn.to/4htz6LY>

**CB Supplements *Unflavored Multi Collagen Protein Powder* - Hydrolyzed Bovine Collagen Peptides, Albumen Protein, Hydrolyzed Marine Collagen Peptides – (Types I-II-III-IV-V, *contains EGG*)**

AMAZON LINK: <https://amzn.to/3E3q1eG>

**CB Supplements *Vanilla Multi Collagen Protein Powder* - Hydrolyzed Bovine Collagen Peptides, Albumen Protein, Hydrolyzed Marine Collagen Peptides, Natural Flavors – (Types I-II-III-IV-V, *contains EGG*)**

AMAZON LINK: <https://amzn.to/4g7Xpy1>

## **Ligament (and Tendon) Healing Formulas from Standard Process –**

Manganese and other natural source trace tissue factors that have helped my patients heal faster and better for dozens of years. Daily dosage 1 or 2 or more of each twice daily.

### **Ligaplex I**

**Standard Process Ligaplex I - Whole Food Supplement, Manganese Supplement, Bone Health and Bone Strength, Joint Support with Phosphorus, Shitake, Calcium Lactate, Beet Root and More - 150 Capsules**

AMAZON LINK: <https://amzn.to/3E8E2rl>

### ***Along with***

### **Ligaplex II**

**Standard Process Ligaplex II - Joint & Bone Support Supplement - Manganese Supplement with Vitamin B12, Vitamin A & Vitamin D - Skeletal System & Joint Support Supplement - 150 Capsules**

AMAZON LINK: <https://amzn.to/4aLKvoB>

**MSM Methylsulfonylmethane** – Made up of 34 % sulfur, an important element for healing connective tissues, MSM also reduces pain and inflammation. Daily dosage 1 or 2 twice daily or more often.

**Pure Encapsulations MSM Capsules | Sulfur Supplement to Support Joints, Immune System, Connective Tissue, and Respiratory Health\* | 250 Capsules**

AMAZON LINK: <https://amzn.to/4jplFMp>

**Biotics Research MSM Potent Sulfur Supplement, Collagen Production, Healthy Hair, Skin & Nails, Muscle and Joint Comfort. 60 Capsules**  
AMAZON LINK: <https://amzn.to/3WvjDmM>

**Green Tea Extract (EGCG)** – Contains catechins that reduce inflammation and provide antioxidant benefits. Daily dosage 1 or 2 twice daily.

**Designs for Health EGCg - Decaffeinated Green Tea Extract (225mg) + Polyphenols Antioxidant Supplement - Non-GMO Vegan Green Tea Pills (60 Capsules)**  
AMAZON LINK: <https://amzn.to/3WxzXU5>

**Hyaluronic Acid** – A supplement that some people claim helps the collagen to repair their tissues. Daily dosage 1 or 2 twice daily.

**Pure Encapsulations Hyaluronic Acid - for Skin Hydration, Joint Lubrication & Joint Health\* - Effective Absorption - Gluten Free - Vegan & Non-GMO - 60 Capsules**  
AMAZON LINK: <https://amzn.to/4avUzSm>

**Devil's Claw** (*Harpagophytum procumbens*) – is traditionally used for pain management, particularly for arthritis and back pain, and it might provide some welcome relief. Daily dosage 1 dropperful into liquid every 6 or more hours for pain.

**Herb Pharm Devil's Claw Liquid Extract for Musculoskeletal System Support - 1 Ounce (DDCLAW01)**  
AMAZON LINK: <https://amzn.to/42sgWGi>

**DL-Phenylalanine (DLPA)** – is an amino acid that might safely enhance natural painkillers (endorphins) in your body. Daily dosage 1 or 2 twice daily or more often for pain.

**Pure Encapsulations DL-Phenylalanine | Amino Acid Supplement for Memory and Focus, Joints, Muscles, and Cognitive Support\* | 180 Capsules**  
AMAZON LINK: <https://amzn.to/3CxW0TA>

**SAMe (S-Adenosylmethionine)** – is another amino acid that might help with joint pain and mood-related issues, particularly in arthritis sufferers. Daily dosage 1 or more twice daily for pain.

**Pure Encapsulations SAMe S-Adenosylmethionine 180's - Supports Joint Health & Glutathione Production\* - Gluten Free & Non-GMO - 60 Capsules**  
AMAZON LINK: <https://amzn.to/4hvc8Et>

**L-Theanine** – found in green tea, is an amino acid promotes general relaxation and stress relief and might reduce tension headaches. Daily dosage 1 or more twice daily to aid relaxation.

**Pure Encapsulations L-Theanine - Amino Acid Supplement to Support Relaxation, Stress & Nervous System - 60 Capsules**

AMAZON LINK: <https://amzn.to/40KA2X2>

**GABA (Gamma-Aminobutyric Acid)** – is a non-essential amino acid that interacts the *neurotransmitter* and hormone systems in a variety of ways to reduce pain perception. As such, pilots should **avoid using** within 24 hours of exercising flight duties. Daily dosage 1 or 2 twice daily to aid relaxation.

**Pure Encapsulations GABA - Supplement to Support Relaxation & Moderation of Occasional Stress - with Premium GABA Amino Acids - 120 Capsules**

AMAZON LINK: <https://amzn.to/3PMem6n>

**Cannabidiol (CBD)** – has recently become available in any number of products over-the-counter. Derived from hemp, CBD interacts with your endocannabinoid system to reduce pain perception. This product is **NOT approved for use by pilots**, as its relationship to marijuana (THC, tetrahydrocannabinol) suggests impairment in performance of flight duties. Its lingering presence in body fluids means it could be identified in “drug testing” at unknown later dates after intake, leading to suspension of your medical and more.

**White Willow Bark** – is included in many over-the-counter nutritional supplements. As a natural source of salicin, similar to *aspirin* in its pain-relieving effects, this benign sounding product could produce unwanted side effects and even risks of overdose, especially if you are frequently taking aspirin as well. The FDA is most interested in medical conditions that would lead you to rely on this, like aspirin itself, repeatedly or for a prolonged period. My advice is to **avoid** its use.

### **CRITICAL TIP:**

**General Multiple Vita/Mineral** – Important for complete al support, so that your healing proceeds rapidly and is not slowed because you lack certain trace nutritional factors. Daily dosage 2 or 3 twice daily – take with food if you feel you tolerate it better.

**THORNE Advanced Nutrients - Multivitamin and Mineral Supplement with Nicotinamide Riboside - Foundational Support, Healthy Aging and Eye Health - Gluten-Free, Soy-Free - 240 Capsules - 30 Servings**

AMAZON LINK: <https://amzn.to/40J9rtb>

*Or*

**Metagenics PhytoMulti Multivitamin - Daily Multivitamins with Phytonutrients - Multivitamin for Men & Women - PhytoMulti Multivitamin Supplement - with Zinc & B6 Vitamins - 60 Capsules**

AMAZON LINK: <https://amzn.to/3CxXpJQ>

*Or*

**Biotics Research Bio Multi Plus Iron Free Multivitamin, Chelated Minerals, Iron Free, Emulsified Fat Soluble Vitamins, High antioxidants, SOD, Catalase 90 Tabs**

AMAZON LINK: <https://amzn.to/4g9JcRh>



*Or*

**Ancient Nutrition Organic SuperGreens and Multivitamin *Tablets* with Probiotics, Made from Real Fruits, Vegetables and Herbs, for Digestive, Detoxification and Energy Support, 90 Count**

AMAZON LINK: <https://amzn.to/4g9Zh9u>

*Or*

**Ancient Nutrition Organic SuperGreens and Multivitamin *Powder* with Probiotics, Made from Real Fruits, Vegetables and Herbs, for Digestive, Detoxification and Energy Support, 25 Servings**

AMAZON LINK: <https://amzn.to/40uaVpX>

**Vitamix Juicer/Blender** – to make your life easier and wonderful! Mixing your supplements (powders, capsules, tablets) with fruits and vegetables can be a great treat. I have used the Vitamix Juicer for over 40 years, it is my favorite and absolutely the best: this is an investment for your future, well worth considering. This is an affordable, high performance, professional grade kitchen utensil: you can use it to make hot soup without a stove, frozen treats in seconds, grind coffee or nuts, make dips and spreads, make dressings and sauces, smoothies and juices, and more ... and it is easy to clean.

**Vitamix E310 Explorian Blender, Professional-Grade, 48 Oz. Container, Black**

AMAZON LINK: <https://amzn.to/4gwD4Tv>

**Stress Management Practices** – have been shown to reduce pain perception and to accelerate healing, regardless of cause of injury or illness. Cultures around the world have developed a variety of approaches to control or reduce stress to manageable levels, including meditation, prayer, visualization, guided imagery, progressive muscle relaxation, aroma therapy, and others. I have long studied how best to understand “stress” and this website has a separate presentation on successful programs I have used with my patients over many years. A variety of approaches are presented elsewhere on this site.

**Aroma Therapy** – can create a comfortable home or office environment for your relaxation during recovery from neck or back strain or injury. The procedure is simple: fill a diffuser with 3 or more ounces of water, add 2 or 3 drops of pure essential oils for relaxation, and allow the cool vapor to fill your world with a calming aroma. Your cost is minimal and your enjoyment might be surprising.

**Homeweeks 300ml Essential Oil Diffuser, Quiet Aromatherapy Mist Diffusers for Essential Oils, Wood Grain Ultrasonic Oil Diffuser with Remote Control, Timer, 7 Colors Light for Bedroom (300ml)**

AMAZON LINK: <https://amzn.to/4g9Say2>

**Waterless Nebulizing Essential Oil Diffuser - Battery Operated & Portable | Cordless Diffuser for Large Room Aromatherapy | Wireless Nebulizer & USB Rechargeable | Model: Cove (Ceramic Cream)**

AMAZON LINK: <https://amzn.to/3CkYaWG>

You will need aromatherapy oils in your diffuser:

Sampler set: **Plant Therapy Top 6 USDA Organic Essential Oil Set - Lavender, Peppermint, Eucalyptus, Lemon, Tea Tree 100% Pure, Natural Aromatherapy, for Diffusion & Topical Use, Therapeutic Grade 10 mL (1/3 oz)**

AMAZON LINK: <https://amzn.to/3E4dGa7>

Specific aroma for relaxation: **Plant Therapy Lavender *Essential Oil* 100% Pure, Undiluted, Natural Aromatherapy, Therapeutic Grade 100 mL (3.3 oz)**

AMAZON LINK: <https://amzn.to/3PN51vi>

## Eating Your Way to Happier Healing

If you are someone who wants to make dietary changes that could contribute to faster healing and greater comfort, you should choose fewer prepared and processed foods, fewer canned or frozen foods. Cooking your own meals – and finding foods that you enjoy eating raw or lightly steamed – can contribute to happier healing and to a longer, healthier life for years to come.

Some food selections that you might choose to add easily right now are presented below, as they have considerable antioxidant and anti-inflammatory factors that support your body repair processes. These are listed from highest to lowest in terms of these desired natural activities.

**Small Red Beans (Dried)** – These legumes are exceptionally rich in antioxidants and provide a substantial amount of fiber and protein.

**Wild Blueberries** – These offer a higher concentration of antioxidants compared to cultivated varieties, contributing to reduced oxidative stress. Darker colors contain more of the protective nutrients.

**Red Kidney Beans (Dried)** – Similar to small red beans, these are packed with antioxidants and essential nutrients.

**Pinto Beans** – These are not only antioxidant-rich but also versatile in various culinary dishes.

**Cultivated Blueberries** – While slightly lower than their wild counterparts, they still provide significant antioxidant benefits.

**Cranberries** – These “Thanksgiving delights” are known for their high antioxidant content and potential benefits in urinary tract health.

**Artichoke Hearts (Cooked)** – Artichokes are rich in antioxidants and dietary fiber, promoting digestive health as well.

**Blackberries** – Another enjoyable treat, they provide a substantial amount of vitamins and antioxidants, supporting overall health.

**Prunes** – These are dried plums, offer antioxidants, and are beneficial for digestive health.

**Raspberries** – Another delightful snack, they are rich in dietary fiber and antioxidants, contributing to reduced inflammation.

**Strawberries** – Strawberries are high in vitamin C and antioxidants, supporting immune function as well as reducing discomforts from inflammation

**Red Delicious Apples** – This particular variety contains a significant amount of antioxidants, particularly in the skin. In fact, many if not most vegetables and fruits have their most valuable contributions “in the skin,” which is why that should be eaten and not discarded.

**Granny Smith** – Another perennial favorite, known for their tart flavor, these apples are also rich in antioxidants.

**Pecans** – These delightful snacks provide healthy fats and antioxidants, beneficial for heart health as well as overall healing and repair.

**Sweet Cherries** – Cherries are known for their anti-inflammatory properties, aiding in muscle recovery. Also enjoyable are **Montmorency cherries** (known as **sour cherries** or **tart cherries**), very high in their antioxidant content to promote healing.

**Black Plums** – Plums offer antioxidants and vitamins that support overall health.

**Russet Potatoes (Cooked)** – These enjoyable vegetables provide antioxidants along with essential nutrients like potassium.

**Black Beans (Dried)** – Black beans are rich in protein, fiber, and antioxidants, making them a nutritious addition to meals.

**Gala Apples** – These offer a sweet flavor and a good amount of antioxidants, especially in the skin.

**Pomegranates** – This unusual fruit is rich in antioxidants and has been linked to various health benefits, including anti-inflammatory effects.

Other foods to consider for your present and future health include **fatty fish** like salmon, mackerel, and sardines, all of which are high in omega-3 fatty acids; **almonds** and **walnuts**, which are excellent sources of healthy fats, fiber, and antioxidants; **extra virgin olive oil**, which contains oleocanthal, a compound with anti-inflammatory effects similar to ibuprofen.

**Tomatoes** are high in lycopene, an antioxidant that reduces inflammation and may lower the risk of certain diseases. **Dark chocolate** is rich in flavonoids, providing antioxidant benefits that can reduce inflammation; **avocados** provide wonderful Vitamin E; **broccoli** is loaded with phytochemicals that promote better chemistry; **watermelons** and **spinach** reduce inflammation. **Carrots** are a great source of beta-carotene antioxidant, as are **sweet potatoes**; **oranges** provide fiber and Vitamin C, both helpful to you. **Chia seeds** are a non-seafood source for omega-3 fatty acids.

Incidentally – **water** is an excellent drink to assist your anti-inflammation program!

**Always remember** ... pilots face significant challenges with both low back and neck pain over their lifetime due to the physical demands of flying. A proactive approach that combines ergonomic adjustments, physical fitness, and preventive care and nutrition can help insure long-term spinal health and career longevity. Addressing these issues not only enhances comfort and performance but also helps prevent future injuries or more serious complications.

**Waste no time – you’re cleared for takeoff.**

**If I can help keep you flying safely and comfortably for years to come, my career will have been wonderfully worthwhile – even though we might never have met. I wish you to enjoy the blessings of better health.**

**If you choose to review my medical practice website:**



**[www.healthCHOICESnow.com](http://www.healthCHOICESnow.com)**

**(Because if you don’t know you have choices now ... you don’t have any!)**

**DO YOU HAVE QUESTIONS? HAVE YOU FOUND ANSWERS? PLEASE SHARE ...**

**What more could I have shared with you about these problems?**

**Email me at ... [feedback@clearedfortakeoff.info](mailto:feedback@clearedfortakeoff.info)**

**What questions do you have about successful integrative medicine “hacks”?**

**Email me at ... [info@clearedfortakeoff.info](mailto:info@clearedfortakeoff.info)**

**Do you have “hacks” or other procedures that I could include here?**

**Email me at ... [info@clearedfortakeoff.info](mailto:info@clearedfortakeoff.info)**

**Do you have a *Success Story* to share about your experiences with what I have shared with you?**

**Email me at ... [feedback@clearedfortakeoff.info](mailto:feedback@clearedfortakeoff.info)**

**One favor, since you now have hacks that are insider information:**

**Please don’t wait for a medical scare to force your hand. Save and share this page with fellow pilots, friends, and family. Together, we can build a healthier, safer future for everyone who loves to fly — and for those who love them.**

**To receive our current FREE GIFT ... CLICK HERE → **

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This website happily introduces you to hacks developed and discovered by a Stanford educated world-class expert in integrative medicine, general aviation pilot licensed since 1978, who served as a Senior Aviation Medical Examiner for the FAA for 12 years, president or director of integrative medical and dental professional organizations, best-selling author recognized as Marquis Who's Who Top Doctor in Advanced Medicine and recipient of Marquis Who's Who Lifetime Achievement Award, with a career dedicated to diagnosing and treating complex chronic problems in patients who had exhausted all other options. Your "second opinion" hacks come from a physician who 25 years ago began lecturing at airshows on How to Regain and Maintain Your Medical. And now they are joyfully and freely offered to you, your family, your friends, pilots and *all* others. When life is your choice, failure is not an option.