



**DENALI**  
MEDICAL CENTER

**10 Tips for**  
OVERCOMING  
**JOINT PAIN**

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# 1. Consider All the Options and Their Associated Risks

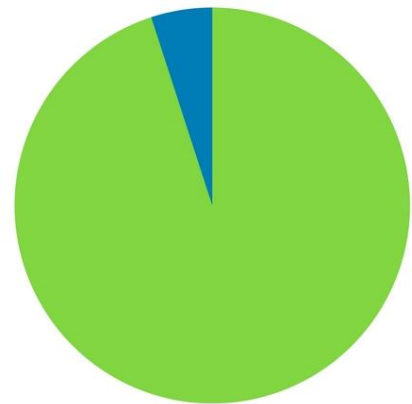
Many people think surgery is the only option, but this is not the case. There are simply more effective and more affordable methods to minimize your joint pain and get them in a healthier state.

Several recent studies have shown that as many as 95% of all orthopedic surgeries can be avoided, and better outcomes are available. This means that only 5% of Americans who have back, neck, or other joint pain, actually require surgery [1]. The vast majority would attain impressive results with much less invasive methods that don't require an 8 to 12-week recovery time.

About 400,000 people in the United States undergo spine surgery each year. Of those who undergo open neck or back operations, recent surveys have discovered that 30–40 percent experience some form of postoperative complications where either the original problem has not improved or they are experiencing other, more significant problems, as a result of the surgery. The term for this is failed back surgery syndrome (FBSS)

## The Majority of Orthopedic Surgeries Can Be Avoided

only 5% of surgeries are required



95% of surgeries are unnecessary and can be avoided

### Surgery Risks that Can Increase the Risk of Complications [2]

- FBSS tends to occur more frequently in the lumbar (lower) region than in the cervical (upper) region of the spine.
- Failure to properly identify the condition(s). A relatively inexperienced surgeon might attempt to correlate a patient's pain pattern with a specific area of degeneration in the spine. However, the process of making an accurate diagnosis is not always this straightforward.
- Your risk of developing FBSS is much higher following an open spinal fusion procedure than after undergoing a minimally invasive technique. Spinal fusion

failure is not uncommon. In order to successfully address neck or back pain through spinal fusion, a surgeon must first accurately identify the source of a patient's pain. Because every patient heals at a different rate and since vertebral fusion takes place as part of the healing process, it can take up to several months or never to achieve a solid fusion in some patients.

- Scar tissue formation. As part of the natural healing process, the body forms bands of scar tissue following any form of tissue disturbance, such as spine surgery. These fibrous adhesions can potentially bind a nerve root, resulting in a condition called epidural fibrosis, which can lead to postoperative pain and FBSS.
- Nerve damage. Decompressing a nerve root through spine surgery will typically cause temporary inflammation and can lead to increased pain until the inflammation subsides. However, in rare cases, nerve damage can occur, resulting in symptoms like chronic pain and weakness in certain muscle groups.

**30% - 40%**  
of those who undergo  
open neck or back surgery  
experience complications

## 2. Be Cautious When It Comes to Cortisone

Cortisone may seem like a quick fix, but keep in mind, cortisone is only temporary...once you get three shots, it causes diminishing returns and can lead to weakening of the bones, tendons, and ligaments. Plus, each time you get another cortisone shot it doesn't work as well as the previous time and it lasts for a shorter and shorter period of time.

Cortisone shots carry a risk of complications, such as: [3]

- Death of nearby bone (osteonecrosis)
- Joint infection

**Cortisone can lead to  
weakening of the bones,  
tendons and ligaments**

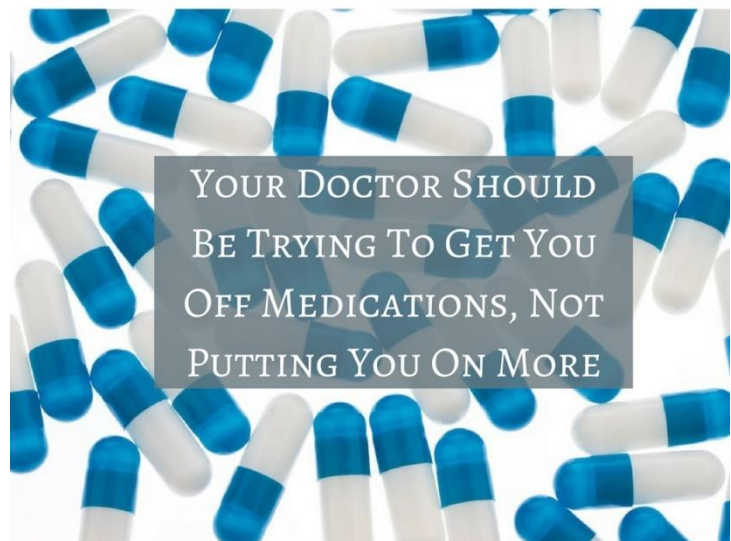


- Nerve damage
- Thinning of skin and soft tissue around the injection site
- Temporary flare of pain and inflammation in the joint
- Tendon weakening or rupture
- Thinning of nearby bone (osteoporosis)
- Whitening or lightening of the skin around the injection site

### 3. Determine Whether Your Medication Could be a Cause of Joint Pain

Typically, we recommend to use narcotics sparingly, or not at all. Narcotic addiction is one of the leading problems afflicting people of all ages. The following drugs, medications or other substances have joint pain listed as a symptom. Please note, this list may be outdated, so please check the symptoms of the particular medication you are on to see whether joint pain is a common side effect.

Taking one or more of these drugs can aggravate joint pain symptoms and can even bring about arthritis. In some cases, joint pain will subside when the medication ceases. It is important to keep in mind that not everyone experiences the side effects of a particular drug. Please note, just because you take one of the following medications you will not necessarily experience painful joints. [4]



See the list on the following page that shows some of the medications where joint pain is a side effect.

# Known Medications Where Joint Pain is a Side Effect

- Accure
- Acebutolol
- Acebutolol Hydrochloride
- Acimax
- Acitretin
- ACTH
- Acthar
- Advair Diskus
- Advicor
- Aggrenox
- AK Beta
- Aldopren
- Alferon N
- Alophen
- Altocor
- Ambien
- Ameblin
- Angiotrofen A.P
- Angiotrofen Retard
- Anspor
- Antiotrofen
- Ap-la-day
- Apo-Atenol
- Apo-Diltiaz
- Apo-Metronidazole
- Asacol capsules
- Asacol rectal suspension
- Asacol suppositories
- Atacand
- Atazanavir Sulfate
- Atenolol
- Atorvastatin
- Ausran
- Austyn SR
- Avanza
- Avapro HCT
- Avonex
- Balsalazide capsules
- Balsalazide suppositories
- Betaferon
- Betagan
- Betapace
- Betaxolol
- Betaxolol Hydrochloride
- Betaxon
- Betimol
- Betoptic
- Betoptic S
- Betoquin
- Bicor
- Bisoprolol
- Blocadren
- Bupropion
- Calcimar
- Calcitonin
- Canasa capsules
- Canasa rectal suspension
- Canasa suppositories
- Carbimazole
- Cardcal
- Cardene
- Cardioquin
- Cardizem
- Cardura
- Carteolol
- Cartia XT
- Cartrol
- Catapres tablets
- Ceclor
- Cedax
- Cefadroxil Monohydrate
- Cefixime
- Ceftin
- Cefzil
- CellCept
- Cerebyx
- Cerivastatin
- Cimetidine
- Cleocin capsules
- Cleocin T capsules
- Clinda-Derm capsules
- Clindagel capsules
- ClindaMax capsules
- Clindamycin capsules
- Clindets capsules
- Clonidine tablets
- Clopidogrel
- Colazal capsules
- Colazal rectal suspension
- Colazal suppositories
- Combivir
- Comvax
- Consupren
- Copaxone
- Corgard
- Corticotropin
- Crestor
- Crinone
- Cromese
- Cromese Sterinebs
- Cyclosporine
- D-Penamime
- Daraprim
- Denvar
- Detrol
- Dilacor XR
- Dilantin
- Dilatrend
- Diltia XT
- Diltiazem
- Diovan
- Diovan HCT
- Dipentum capsules
- Dipentum rectal suspension
- Dipentum suppositories
- Dofetilide
- Doxazosin
- Doxercalciferol
- Drisdol Liquid
- Duricef
- Efalizumab
- Elidel Cream
- Emtricitabine
- Emtriva
- Enbrel
- Engerix-B
- Epivir
- Epoetin
- Epogen
- Eprex
- Erevox
- Estazolam
- Etanercept
- Ethambutol
- Evista
- Ezetimibe
- Famciclovir
- Famvir
- Femara
- Fenofibrate
- Filgastrim
- Flagenase
- Flagyl
- Flagyl ER
- Flomax
- Fluvastatin
- Forteo
- Fungizone Intravenous
- Gemfibrozil
- Gengraf
- Glatiramer
- Glivec
- Granocyte
- H-B-Vax II
- H.P. Acthar Gel
- Habitrol
- Hectorol Capsules
- Hepatitis B Vaccine
- Herceptin
- Hexal Ranitic
- Hivid
- Imatinib
- Imukin
- Inerferon Alfa
- Infanrix HepB
- Infergen
- Interferon
- Intron A
- Isohexal
- Isotretinoin
- Isotrex
- IsotrexGel
- Keflet
- Keflex
- Keftab
- Kerlone
- Kredex
- Lamivudine
- Lomogastrim
- Lescol
- Lescol XL
- Letrozole
- Levatol
- Levobunolol
- Lipitor
- Lipobay
- Lofibra
- Lopid
- Lopressor
- Lorabid
- Losec
- Lumigan
- Maloprim
- Maxor
- Meridia
- Meruvax II
- Mesalamine capsules
- Mesalamine suppositories
- Mesantoin
- Methylphenobarbitone
- Metipranolol
- Metoprolol
- Metric 21
- Metro I.V
- MetroCream
- MetroGel
- MetroLotion
- Metronidazole
- Mevacor
- Miacalcin
- Micardis
- Midoride
- Milezzol
- Minipress
- Minizide
- Mirtazon
- Monitan
- Montelukast
- Myambutol
- Mycophenolate
- Mysoline
- Naltrexone
- Nefazodone
- Neo-Mercazole
- Neoral
- Neotigason
- Neupogen
- Niacardipine
- Nicoderm
- Nicoderm CQ
- Nicotine nasal spray
- Nicotine transdermal patch
- Nicotrol NS
- Noritate
- Novacef
- Novo-Atenol
- Novo-Diltazem
- Novo-Nidazol
- Nu-Atenol
- Nu-Diltiaz
- Ocupress
- Olanzapine
- Olsalazine capsules
- Olsalazine suppositories
- Omeprazole
- Omnicef
- Onxol
- Optipranolol
- Oratane
- Otrozol
- Paclitaxel
- Panixine Disperdose
- Pantoprazole
- Pariet
- Peganone
- PegIntron
- Penicillamine
- Pentasa capsules
- Pentasa rectal suspension
- Pentasa suppositories
- Phenobarbitone
- Phenytek
- Phenytoin
- Pimecrolimus
- Pindolol
- Plavix
- Pneumococcal vaccine
- Pneumovax 23
- Prandin
- Prazosin
- Presoken
- Presoquim
- Prevenar
- Primidone
- Pritor
- Probitor
- Procrit
- Prometrium
- ProSom
- ProStep
- Proton pump inhibitor
- Protostat
- Quin-Release
- Quinaglute Dura-Tabs
- Quinalan
- Quinidex
- Quinidine
- Quinora
- Raloxifene
- Rani 2
- Ranihexal
- Ranitidine
- Ranoxyl
- Rapamune
- Raptiva
- Rebetrone
- Rebif
- Relenza
- Repaglinide
- Rescula
- Revia
- Reyataz
- Rhotal
- Risperdal
- Risperidone
- Roaccutane
- Roferon A
- Rowasa capsules
- Rowasa rectal suspension
- Rowasa suppositories
- Rubella vaccine
- Rynacrom
- Salmeterol
- Sandimmun Neoral
- Sandimmune
- Sectral
- Serevent
- Serzone
- Sibutramine
- Singulair
- Sirolimus
- Sodium cromoglycate
- Somac
- Soriatane
- Spectracef
- Stamaril
- Suprax
- Syn-Diltiazem
- Synacthen depot
- Tagamet
- Tamsulosin
- Taro-Atenol
- Taxol
- Taxotere
- Taztia XT
- Tegaserod
- Tenormin
- Teriparatide
- Tetrocosactrin
- Tiamate
- Tiazac
- Tikosyn
- Tilazem
- Timolol
- Timoptic
- Tocainide
- Tolterodine
- Tonocard
- Toprol-XL
- Trastuzumab
- Travatan
- Triamterene
- Tricor
- Trizivir
- Twinrix
- Ultracef
- Vantin
- Vastin
- Vatrix-S
- Velosef
- Vertisal
- Visken
- Wellbutrin
- Xalatan
- Yellow Fever Vaccine
- Zalcitabine
- Zanamivir
- Zantac
- Zebeta
- Zelnorm
- Zetia
- Ziac
- Zoladex
- Zolpidem
- Zoton
- Zyban
- Zylflo
- Zyprexa

## 4. Avoid or limit your use of Non-steroidal anti-inflammatory drugs (NSAIDs)

Nonsteroidal anti-inflammatory drugs (NSAIDs) like Ibuprofen, Aleve and other 'pain' medications are among the most commonly used drugs in the world for the treatment of osteoarthritis and other conditions. However, one of the most serious adverse reactions to NSAIDs is they inhibit proteoglycan synthesis, a component of ligament and cartilage tissue regeneration and repair.

### The Effects of NSAIDS on Joints

- Acceleration of radiographic progression of osteoarthritis
- Decreased joint space width
- Increased joint forces/loads
- Increased risk of joint replacement
- Inhibition of chondrocyte proliferation
- Inhibition of collagen synthesis
- Inhibition of glycosaminoglycan synthesis
- Inhibition of prostaglandin synthesis
- Inhibition of proteoglycan synthesis
- Inhibition of synthesis of cellular matrix components

In studies, NSAIDs have been shown to accelerate the radiographic progression of osteoarthritis of the knee and hip. For those using NSAIDs compared to the patients who do not use them, joint replacements occur earlier and more quickly and frequently.

Some believe that massive NSAID use in osteoarthritic patients is one of the main causes of the rapid rise in the need for hip and knee replacements, both now and in the future. [5]

### Common NSAIDS (non-steroidal anti-inflammatory drugs)

- Aspirin (Bayer)
- Ibuprofen (Advil, Motrin)
- Naproxen (Aleve)
- Celecoxib (Celebrex)

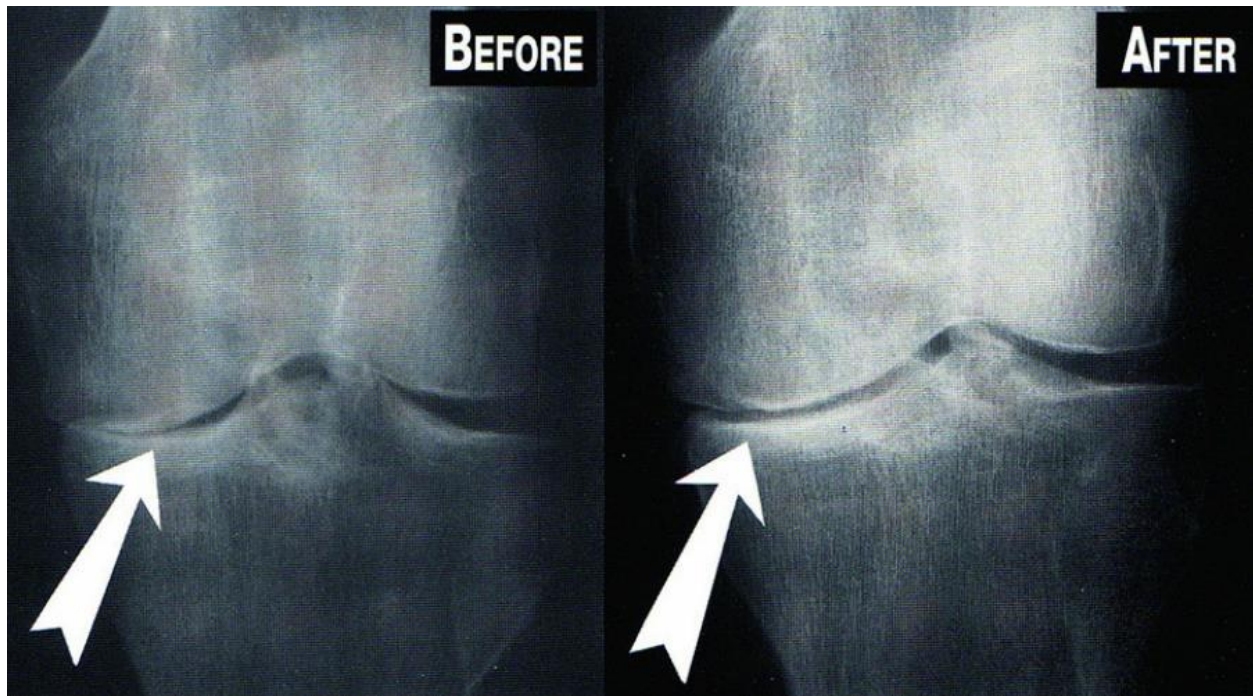
## 5. Seek Therapies That Promote Natural Healing Like RenuO2

RenuO2 can heal the joints and tissues naturally and completely. Their success rate is much higher than surgery and the recovery time is less. In fact, you can often go about your daily routines without any change while your body heals.

### Benefits of RenuO2

- Completely natural and non-toxic
- No down time
- Triggers the body's innate healing system
- Can delay or eliminate the need for joint replacement therapy
- Low-risk procedure
- Minimal discomfort
- Rapid results

### RenuO2 Promotes Cartilage Regeneration



## 6. Maximize Nutrition for Optimal Healing.

Nutrition and diet are KEY to healing. The body is designed to heal in all stages of life if given the proper building blocks, nutrients, and vitamins.

Eat plenty of fresh vegetables and avoid processed foods. Incorporate more fresh spices into your diet, like turmeric and ginger which can decrease the amount of inflammatory compounds in cartilage cells. Foods rich in omega 3 fatty acids like flaxseeds, chia seeds, walnuts and other foods can also reduce inflammation throughout the body.



Try to avoid inflammatory foods like sugar, saturated fats, trans fats, refined carbohydrates, MSG, gluten, aspartame and alcohol.

Homemade bone broth can be very beneficial. As bone broth simmers, collagen from the animal bones leach into the broth and when consumed it can help improve gut health as well as taking pressure off of aging joints. Research done by the Department of Nutrition and Sports Nutrition for Athletics at Penn State University found that when athletes supplemented with collagen over the course of 24 weeks, the majority showed significant improvements in joint comfort and a decrease in factors that negatively impacted athletic performance. [6]

## 7. Take Supplements to Optimize Performance and Healing

No diet is perfect. Professional grade supplements are labeled such because they excel at providing the right amount of nutrition to your cells, where it's needed most. Supplements like Glucosamine can help keep the cartilage in joints healthy and may have an anti-inflammatory effect. If you're not incorporating things like turmeric, ginger, omega-3s and other beneficial herbs and ingredients, you may want to consider getting those through supplements.





## 8. Combine Healing with Chiropractic Care



Physical medicine, or chiropractic care, assures proper alignment and positioning for optimal healing, and decreases wear and tear from unbalanced skeletal systems. Chiropractors correct the underlying cause of joint dysfunction so that the body can restore normal ranges of motion in the region that allows for the compensatory soft tissue reactions to heal. It is through this manner that chiropractors can be beneficial if you are experiencing joint pain and dysfunction.

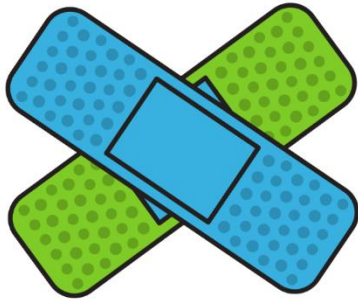
## 9. Fix the Problem at the Source

Find the source of the problem and treat it. Create the environment that your body needs in order to be able to heal. Things such as proper nutrition, supplements, and an oxygen-rich environment (RenuO2) can help initiate your body's innate power to heal. Understand that treatments that only go after the symptoms are band aids and will ultimately fail. Realize that the body takes time to heal naturally. Anything worth doing is worth doing right, and the right way can sometimes take time.

### Our Natural Treatments

- ✔ Fix the root cause so you can truly heal
- ✔ Strengthens bones, tendons & muscles
- ✔ Rebuilds ligament tissues
- ✔ Helps boost the immune system
- ✔ Have no reported harmful side effects

## 10. Look at the Body as a Whole, Not It's Individual Parts



Heal the Pain: Stop Covering it Up

Sometimes pain and inflammation can be coming from something that seems unrelated. Make sure your provider looks into all of your issues and evaluates whether they are playing a role in your joint pain. Many times there are numerous factors that contribute to the pain, but association does not cause causation. It is extremely important to find a doctor who will look at your body as a whole, and not just the location that might appear to be the problem area.

## About Denali Medical Center

Denali Medical Center focuses on integrative and functional medicine. We believe in restoring health, preventing illness, and avoiding prescriptions and surgeries wherever possible.

Our clinical expertise includes Ozone, RenuO2, PRPO2 Injections, Nutrition, Supplement Optimization and IV Recovery and Rejuvenation.

To learn more about Denali Medical Center's services or to schedule an appointment, please visit <https://denalimed.com> or call 801-493-9811.



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## REFERENCES

- [1] "30 Of The Most Surprising (And Alarming) Back Pain Statistics," [Online]. Available: <http://www.thegoodbody.com/back-pain-statistics/>.
- [2] M. Michael Perry, "What is Failed Back Surgery Syndrom (FBSS)?," [Online]. Available: [https://www.laserspineinstitute.com/back\\_problems/fbss/](https://www.laserspineinstitute.com/back_problems/fbss/).
- [3] M. C. Staff, "Cortisone Shots: Mayo Clinic," [Online]. Available: <http://www.mayoclinic.org/tests-procedures/cortisone-shots/details/risks/cmc-20206857>.
- [4] "Medications or Substances causing joint pain: Right Diagnosis," [Online]. Available: [http://www.rightdiagnosis.com/symptoms/joint\\_pain/side-effects.htm](http://www.rightdiagnosis.com/symptoms/joint_pain/side-effects.htm).
- [5] M. Ross A. Hauser, "The Acceleration of Articular Cartilage Degeneration in Osteoarthritis by Nonsteroidal Anti-inflammatory Drugs: Journal of Prolotherapy," [Online]. Available: <http://www.journalofprolotherapy.com/the-acceleration-of-articular-cartilage-degeneration-in-osteoarthritis-by-nonsteroidal-anti-inflammatory-drugs/>.
- [6] "24-Week study on the use of collagen hydrolysate as a dietary supplement in athletes with activity-related joint pain: NCBI," 15 April 2008. [Online]. Available: <https://www.ncbi.nlm.nih.gov/pubmed/18416885>.
- [7] F. K. Chan, "NSAID - Associated Lower Gastrointestinal Bleeding: Where Do We Stand: Clinical Gastroenterology and Hepatology," [Online]. Available: [http://www.cghjournal.org/article/S1542-3565\(12\)00904-4/abstract](http://www.cghjournal.org/article/S1542-3565(12)00904-4/abstract).