



Orthopaedic Approaches to Chronic Neck and Lower Back Pain

By

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INTRODUCTION:

In our offices, we see many patients who have long standing pain in the general area of their neck and the general area of their lower back. These are often very difficult problems to manage when dealing with chronic pain. I think we do a much better job treating patients who have acute pain or brand new problems. In many patients, the treatment options for chronic pain around the spine are very limited. Even in these cases, I think our main responsibility as orthopaedic surgeons is to make an accurate diagnosis and make the patients aware of their conditions so they can deal with them in effective ways since in most of these cases treatment never produces a cure.

I hope that from this article you will gain some insight and education into and an understanding of the treatment options that exist in your case.

This article deals with very general points and very general topics. The basic information applies to any area of the spine. Some of the aspects of this article may apply to your own clinical situation and many of them may not. This article is intended for very general information and general knowledge.

DEFINITIONS FOR MECHANICAL SPINAL PAIN:

In the vast majority of cases, the presence of chronic neck or back pain is produced by mechanical factors. That is why I use the term “mechanical pain”. This would be defined as pain very close to the neck or pain very close to the lower back. The pain may radiate toward a shoulder or the pain may radiate toward a hip but, as a general rule, there is no radiation of pain into the arms or legs. This is the type of pain that is generated by “moving parts” that are abnormal. Moving parts are things like the small joints that connect the vertebra together or even the disks that connect the vertebra. This type of mechanical pain is not produced by the major spinal nerves. Mechanical pain is produced by microscopic nerves that cannot be seen on a scan, or on x-ray, or even in surgery.

As stated already, mechanical pain is different from “nerve pain”. Nerve pain tends to run down an arm or leg or sometimes affect a shoulder or a hip. Nerve pain typically does not produce symptoms immediately adjacent to the neck or immediately adjacent to the lower back. Arthritic conditions are the most common example of mechanical pain. Most patients with mechanical pain in their spine have arthritis or some variation of arthritis. Arthritis in the spine is not curable. We can do knee replacements for arthritis in the knee and essentially “cure” arthritis at that location. Joint replacements do not exist for the spine. Degenerative disk disease is another example of a condition that produces chronic mechanical pain around the spine. Most patients who have degenerative disk disease do not have surgical solutions to their problem either.

A third less common category for mechanical pain would be “instability”. Instability in the spine would be produced by unusual curvatures that appear on x-ray, or it can be produced by “slippage” or “spondylolisthesis”. (The way an orthopaedic surgeon uses the term “instability” is different than the way chiropractors use the term “malalignment”. Don’t be confused that your spine is “unstable” just because someone has told you that you are “out of alignment”. It may not be so.)

MY GENERAL APPROACH TO THE EVALUATION AND TREATMENT OF “MECHANICAL PAIN”:

1. If nothing else, your office visit with me is a screening process to make an accurate diagnosis and rule out other rare conditions for mechanical pain. For many patients we can come up with a diagnosis but we may not have any effective treatment.
2. Throughout initial evaluations hopefully we have ruled out any significant component of nerve involvement just by our physical exam and review of x-rays. Then, your condition is classified as “mechanical pain” as opposed to some other type of nerve problem.
3. As a general statement, specialized scans such as MRI or CAT scan are best used for evaluation of nerve problems. They tend to be very unhelpful to me in coming up with treatments for mechanical pain. Many patients ask for scans and many patients even demand MRI scans; however, you should know that MRI scans tend to be very unhelpful for treatment mechanical pain.
4. The vast majority of patients with mechanical pain are not “curable”. Hopefully they are “manageable”. In other words, many of these patients can be given tools to help manage their pain.
5. In the vast majority of patients with back pain, no surgical solution is ever identified. There are exceptions such as the more rare cases of true instability.

6. In the evaluation and treatment process, there is a lot of trial and error, trying to come up with things that may work for you. We try to isolate small subsets of patients who may respond to certain treatment options. These options include:
 - a. physical therapy
 - b. simple non-narcotic medications
 - c. surgical treatment
 - d. “pain clinics” (which represent “alternative medicine”)

7. Regular aerobic exercise programs and home exercise programs tend to be effective in the management of chronic mechanical back pain. Even things such as pool therapy for elderly patients who cannot tolerate regular workouts in a gym may be effective in the long term management of pain. For the majority of our mechanical back patients we highly recommend a self-directed light aerobic exercise program for conditioning, weight loss, a general sense of well being. The things that you do to make your heart healthy (like regular exercises and stopping smoking) also seem to make your back hurt less.

8. “Home remedies” like changing mattresses and changing pillows, orthotics, heating pads, and “back stores” seem to be reasonable options for many people trying to manage their chronic pain at home without medications or surgery. Just do not spend your life savings on orthotics or pillows or even massage therapists.

“ALTERNATIVE MEDICINE”:

I would like to expand on this concept of “alternative medicine”. In modern American medicine, these methods have become increasingly more common, rightly or wrongly. As orthopaedic surgeons, we do not practice “alternative medicine”. However, we sometimes refer patients with chronic pain to other health-care providers who practice this method of treatment. For example, alternative medicine consists of things such as chiropractic treatment, massage therapists, acupuncture, and more formal “pain clinics”.

As a general description, “pain clinics” often try minimally invasive methods to control pain such as local injections, electrical stimulators, pain stimulators. As I stated, as an orthopaedic surgeon, I do not practice “alternative medicine”. As an orthopaedic surgeon, I am not a strong advocate of alternative medicine. I see it as an adjunctive treatment, as a possibility, something that patients may pursue on their own. My own feeling is that a very small percentage of patients with chronic spinal pain should end up in “pain clinics”. It is my own preference to avoid long term involvements with chiropractic care or long term commitments to regular physical therapy courses, neither of which have been proven effective for the management of chronic spinal pain.

STEROID INJECTIONS:

You hear a lot about patients getting injections of cortisone or steroid into their spine for pain relief. These would be things like epidural steroid injections or selective nerve root injections. However, for the treatment of mechanical pain problems such injections I find to be extremely ineffective. I do not recommend these types of steroid injections for your type of problem. Even simple office injections for back pain are incredibly ineffective in my opinion and I never do them. They just don't work. We do have in our office physicians who are physiatrists and anesthesiologists, who do many injections for specific nerve conditions like spinal stenosis or radiculopathy, but not as often for mechanical conditions. I am aware that some of the "pain clinics" do local steroid injections into joints around the spine for relief of mechanical pain. There is probably a small subset of patients with back pain who will respond to these facet (joint) injections.

OBESITY:

Body weight problems and obesity are at epidemic levels in the good old USA and the problem is getting worse over time. In my own practice the vast majority of patients with chronic mechanical low back pain are overweight at a much higher percentage than the general population. (Obesity does not seem to be a risk factor of neck pain fortunately, but it is a risk factor for lower back problems or even mid back problems.) As I have stated already, long term commitments to aerobic exercise and weight loss may be one of the few things that you can do for yourself to control this type of chronic pain. It is in your hands. I do not think excessive weight by itself causes back pain but I do believe that it aggravates the pain of arthritic conditions and other preexisting conditions. In other words, it makes the existing pain worse.

(As an aside, chronic tobacco use has also been associated with higher levels of chronic pain around the spine for reasons we do not fully understand.)

MEDICATIONS:

It is my own philosophy of treatment to avoid narcotic medications for the treatment of chronic spinal pain. This also applies to tranquilizers or sedating medications or any mood altering drug. As a surgeon, I use these types of medicines very frequently for acute pain management but not for chronic spinal pain. Other well-meaning physicians have different feelings about the use of chronic narcotic medications. I can only give you my own philosophy, my own preference, and the way I do things. This applies to all patients; I do not play favorites. If your family physician feels that you need long-term pain medications like narcotics, it is certainly a decision between you and your well-meaning physician. It is also a decision that is sometimes made in the "pain clinics". In these pain clinics the anesthesiologist or the physiatrists often make decisions to prescribe long-term narcotics or mood altering drugs. I do not interfere in that decision, I just don't prescribe the medications myself. Very few "pain clinics" are interested in providing chronic narcotics as the sole method of treatment.

If you as a patient with chronic arthritis in their spine have an acute flare up of arthritis that lasts for several weeks, I have no problem giving you stronger medications for pain

to cover you for those several weeks. I would not intend the medication to be continued beyond the acute phase, however. We use nonaddicting medicines such as arthritis medicines and nonsteroidal anti-inflammatory medications and over the counter products. We try to find ways of managing your pain without the use of medication wherever possible. (Here is another way of thinking about it: chiropractors who perform long-term management of chronic back pain use no medication at all and in many cases they do so quite successfully.)

THE ROLE OF SURGERY:

For those of us who take a fairly conservative approach to surgery on the spine there are a very limited number of patients who benefit from surgical procedures for the control of mechanical neck or back pain. In general, these are patients who have true “spinal instability”. Based on our office evaluation I can certainly tell you whether you have a “spinal instability”. In general, we can manage spinal instability with fusion operations. However, these are big surgeries and many patients would not qualify based on medical risk factors or obesity or excessive age. In general, the patients who have spinal instability and who might benefit from surgery are younger patients (usually less than fifty (50) years old), are close to normal weight, have failed many months of other non-surgical therapies, and have disabling levels of pain. Also, these surgical candidates have very isolated disease. (In other words, they may have one or two spots in their spine that are diseased, and the rest of the spine is normal. Patients with multiple levels of disk disease or arthritis rarely benefit from fusion operations for control of back pain.) This above list consists of my own indications for spinal fusion for back pain. Other surgeons may not agree with me. This is a conservative approach. I would say that my own observation is that in this country there are far too many spinal surgeries for arthritic or degenerative low back pain. There has been an explosion of technology some of which is unproven. The explosion of technology in spinal implants has fueled a rise in spinal surgeries no question about it. These are all significant surgeries, major surgeries, and a judgment call has to be made whether the risk of surgery would justify the benefit. Of the patients I see, I would estimate that fewer than two-percent (2%) of the patients with mechanical spinal pain would qualify as reasonable candidates for surgery.

THE ROLE OF THE ORTHOPAEDIC SURGEON:

I am an orthopaedic surgeon. In general, my philosophy is to find things to “fix”. My general philosophy has been to advocate and pursue surgical treatments on the spine that I believe are effective. We perform many spinal surgeries for different conditions that have proven to be very reliable and very effective. However, for chronic mechanical neck pain and chronic mechanical low back pain in the majority of cases, effective surgeries do not exist in my opinion. Therefore, when you present to my office for evaluation of these types of pain, I consider my role in a somewhat different light. I think that my job is to screen you and to make an accurate diagnosis. My job is then to educate you on the general aspects of your condition. I feel I should be available to manage acute “flare-ups” of your chronic pain condition, but my job is not to manage your chronic pain long term. I think my role is to reevaluate your situation with new tests if there are

significant changes in your pain pattern or worsening of pain that cannot be explained as a simple “flare-up”. I think my role is to use pain medications in a limited way, and to direct you toward nonsurgical methods such as physical therapy.

As I said earlier, I think I do best and serve you the best when I am placed in a role to make a diagnosis and to help manage your acute pain. Often my role is to direct you to other resources in the medical community who can help you with chronic pain when I cannot, such as referrals to physiatrists, rheumatologists, “pain clinics”, or even back to your family physician for long term medication needs. Some family physicians feel perfectly comfortable managing medications on a long term basis for pain. I do not feel comfortable with that role, and am not very good at it.

If we have nothing more to offer you, here is a summary of what are basically self-help options:

1. Join a health club such as YMCA or American Family Fitness Center to begin a long-term, self directed, light aerobic exercise program that would include an indoor pool exercise program. Physical conditioning and wellness have been associated with reduced pain perceptions on a part of most patients.
2. You can hire a personal trainer if you can afford to do so. They generally are very knowledgeable in nutrition and exercise, and will custom fit a program to your needs.
3. If weight loss is a goal, join a reputable commercial weight loss program such as “Weight Watchers” or “Physician’s Weight Loss”. There are also professional nutritionists available, or you may consult your family physician on dietary recommendations.
4. Massage therapy can be a useful supplement or alternative for episodic control of back pain.
5. Ultimately, your pain control solution may just boil down to life style changes and activity modification. In other words, there will be some activities that you must give up. On occasion people have to consider career change away from physically stressful work or stressful environments. Of course, “life style” also involves considerations for giving up unhealthy habits such as overeating and tobacco and nicotine use.

CONCLUSIONS:

As you can tell from the above article, many patients can be “managed” with their chronic mechanical spinal pain. Few are cured. I think the patients who do the best are the ones who are educated, do some research on their own, even scan the internet for educational materials about spinal conditions. (Be careful of the internet. There is a lot of advertising and there are a lot of gimmicks.)

I think the patients who do best in managing their chronic mechanical back pain are people who are active and exercise aerobically and who avoid addictive substances such as tobacco, alcohol, and narcotics. I think the patients who do best controlling their chronic mechanical back pain are in good health and are of normal weight, and are free of depression and other emotional problems. By all means, if you suffer from depression or other psychiatric conditions, you must get those treated if you have any hope of controlling spinal pain.

As an orthopaedic surgeon, I try and isolate groups of patients who have these conditions who may respond to the treatment methods listed above. As you can see, there are many treatments available, but few produce any type of “cure”. Certainly, there are a large number of patients who do not respond to any of these modalities or any of the treatments presented above. For some of those patients we hope we can give reassurance that their diagnosis is not serious, that they are not alone, and that they are probably not dying of cancer in their spine. In those situations, and there are many patients in those situations, we simply ask the patients to live with the condition. That is the best that we can do and we understand that. Hopefully, these patients will have some peace of mind that we have ruled out more serious problems such as fracture or nerve damage or even cancers. I enjoy screening patients and I enjoy making diagnoses, and I enjoy talking to patients. I enjoy the challenge of trying to find things to “fix”. It is just unfortunate that with mechanical back pain there are very few things to “fix”.

For more information you may refer to our WEOC website and on my page I have made some other references to spinal educational resources.

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