

A New Back Health Solution

by
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The data about how the back works was first published in
Muscle 'N Bone: A User's Handbook for his Human Body

by Dennis Denlinger

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This Book:

A New Back Health Solution

Chapter One

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Introduction

From about the time I was about 12 years old until I was 40 years old I was experiencing terrible headaches. The situation became so bad that in 1980 I was unable to work due to the headaches. Over the years medical doctors had tried CAT scans and x-rays but couldn't find anything physically wrong. They thought it was all "in my head," meaning I was imagining the headaches. If it hadn't been for chiropractors, I would have been out of commission many years earlier. It could have equally have been a Osteopathic Doctor, as they also adjust bones as well as administer drugs.

Then, one day when it all seemed hopeless, a chiropractor showed me a drawing in an anatomy book. The drawing showed the muscles and bones in the neck. My immediate reaction was, "You mean Those are There?!! WOW!! I'm not using those muscles at all!" My engineering training in Architecture School care to the fore. I immediately recognized what I now call the neck spring muscles were supposed to do AND that mine were not doing what they should be doing.

Within a couple weeks I got those muscles to working and, although the terrible headaches were still there, noticed a nice improvement. I then bought a copy of "Gray's Anatomy," the first year medical student's "bible."

I studied the muscles in the neck. The chiropractor had told me that my top vertebra was twisting out of place, so I looked in that area and spotted a short muscle in the neck connecting the top vertebra to the skull. By applying the engineering principles I had learned in school, I recognized that the top vertebra was twisting in such a way that the spinal cord (the main nerve pathway between the brain and the body) was being "sissored." between the top vertebra and the skull. WOW! That could very well explain the headaches.

In addition, I recognized that one little muscle could pull that top vertebra back into place. To test this theory out, I used my fingers to feel for the "prongs" sticking out to the sides of the top vertebra. I felt the "prong" on one side of the neck, but not on the other. Next I traced that short muscle on the skin. I found that when I contracted the muscle

(or muscles?) under that place, that I could feel the “prong” move into place. It felt like there was a bit less pressure in the area of the neck. In a minute or two the muscle was totally exhausted and would no longer keep the bone in that place.

The next day I tried using that muscle again and once again the “prong” moved into place, indicating that the top vertebra bone was where it should be. However, once again in a couple minutes the muscle became exhausted and gave up.

That went on day after day and within a couple weeks I could keep that muscle working all of ten minutes a day. Then the other shoe dropped. The area started to wake up. Whenever that muscle was not working, the headaches became absolutely unbearable!!!

Have you ever sat reading with your head supported on your bent wrist for a long, long time? As long as the wrist stays bent everything is okay. But, when it is time to get up and do something else and the wrist starts to move, the wrist complains terribly with lots of pain. A similar thing was happening to my spinal cord (the main nerves) as the pressure was being taken off.

It took another two months to get that little muscle strong enough to hold the top vertebra in place ten hours a day. Wonder of wonders, the headaches were about half as bad as they had been! So, I started looking for other muscles to fix.

I found over fifteen muscles which were not working when they should or were working when they shouldn't. One was even paralyzed and I got that work-

ing. Along the way I discovered various engineering principles being applied to the body. One was that when one system is off line, another system can be pushed to take over, but neither job is done so well and various problems occur. More details on this idea will be presented in later in this book or in forthcoming books.

One thing I recognized was that the spring action of the spine was of greatest importance. So, I proceeded to get those working in my own body. The upper back was similar to the neck, so it went well.

However, the lower back just didn't have a spring muscle! I looked and looked. Finally, after three months of searching, the fact jumped out at me. It operated on a different engineering principle! It operated like a suspension bridge turned on end! Once I had that concept, within two weeks I had my lower back spring working.

Over the years I found that I did not have both sides of all the spring muscles working, which gave problems. It is a basic engineering principle of the body that both sides have to work the same. Also, I found that sometimes the entire length of a spring muscle wasn't working which also gave problems. I got those fixed.

“Gray's Anatomy” was the reference book I continually studied to learn where the muscles and the bones were located. I am very much indebted to Dr. Henry Gray, Fellow of the Royal College of Surgeons who wrote the original book and his successors who updated and refined his work.

I applied my knowledge of engineering to the data in “Gray’s Anatomy” to develop the discovery I was making. It turned out that there were structural problems throughout my own body forcing me to develop the complete theory. I applied the principles to my own body first and found they worked.

Once I knew the theory, I looked around me and noticed that other people were not using their muscles correctly. My personal experience and knowledge of this new theory led me to believe that they could very well be experiencing similar pain. In fact, their pains could be coming from not understanding the engineering principles and therefore not applying them correctly.

So, I wrote a book about it entitled “Muscle ’N Bone: A User’s Handbook for His Human Body.” The book was based on the discovery, but simplified and made digestible for the average person who knows little or nothing about how his or her body works.

That book is now out of print. I have started a project to make all the data readily available to all. The first workbook in the series is “A New Foot Health Solution.” Now there is this workbook about the back and neck spring. There will be other books about the remaining muscle-bone systems and how to get them to working. The way bones are held tight in joints will be explained. The way improper use of the

arm can lead to “tennis elbow” will be gone over and made correctable. There will be a workbook, similar to this, for pregnant women and how to relieve the lower back and hip pain they experience as the baby grows in their belly. Some of that data will come from this book. There will be a book where all this material is brought together in a textbook rather than workbook format. In addition, there will be DVDs covering the material. All these will be for the layman.

Eventually there will be a professional level book going over basic structural engineering theory and how to apply it to the body so complex problems which prior books do not address can be analyzed and resolved by health care professionals.

Along with this should also come clinical studies by professional researchers which are reported in professional peer review journals. Plus, there will need to be trainers to help people who have difficulty learning and developing the correct habits from books and DVDs as well as professionals to help those who have problems which cannot be handled by simple training. If you wish to help with all these projects, please contact me with information of what you can contribute. I would greatly appreciate such assistance.

Meanwhile, make good use of this workbook and may you live long.

Chapter 1

An Overview

Do you want a new back health solution? Do you want a solution that has your back working the way it is made to work?

Okay, I'll tell what I know.

No school has ever taught the new back health solution for back or neck pain as taught in this book. The new knowledge and skill presented in this book was recently developed by the author.

The new back health solution you will get in this book deals with the right way to use the back. It was developed using basic engineering principles which have been made easy to understand. The discovery shows how and why pain can happen in the neck and back when the spine is not used correctly. That pain is a warning that something could break if nothing is changed. People have relieved pain by using this solution.

This new back health solution for back and neck pain and is not high tech. It is something many could possibly do pretty much on their own. Maybe you can benefit, too.

If you know what to look for you can walk down the street and see many back

and neck problems. People just like you often have this problem even though their back and neck do not hurt at the moment. In fact, they may never hurt...or they could start to hurt just when you can least afford to have another problem.

By doing nothing about the solution to the problem now, when things are going well, an injury could occur when the back is highly stressed.

Why learn the solution now, even if there is no pain? Not to be ridiculous, but you might look outside and see your two-year-old toddler about to toddle into a busy street. You start running. You don't just run, but you *RUN*. Suddenly there is a new pain in your back. That new pain slows you down. It could be the stuff of nightmares. Okay, you don't have children and never will. Most likely there is something else equally important to you.

Whether your neck or back hurts at this moment or not, now is the time for you to learn the new back health solution for yourself. You never know when you might need it.

What kind of pain will the new back health solution relieve?

Not arthritis. Not bone spurs. Not sunburn. Not cancer growths. Not broken bones. Not accidental damage to soft tissue. Yes: scoliosis, herniated disc, certain neck and back pains and saggy belly. These all have a possible solution in common which is taught in this book.

The new back health solution can relieve the pain of over-stretched ligaments. Remember ligaments? Ligaments are the tough material which holds bones together at the joints. You can see a ligament next time you eat a chicken leg. As an example, it is the tough, gristly stuff holding the thigh bone to the drumstick bone.

Your ligaments do an important job. They are the backup to your muscles. When your muscles are not working, such as when you sleep, your ligaments keep your bones together at the joints. Without your ligaments you could wake up with your big toe tickling your tongue or your top rib behind your knee.

The ligaments are a backup for when your muscles are not working, or not working correctly.

Imagine your body is a machine. As with any good machine, when the backup to an important system is called into action, there are loud bells or flashing red lights to let the operator know something is wrong.

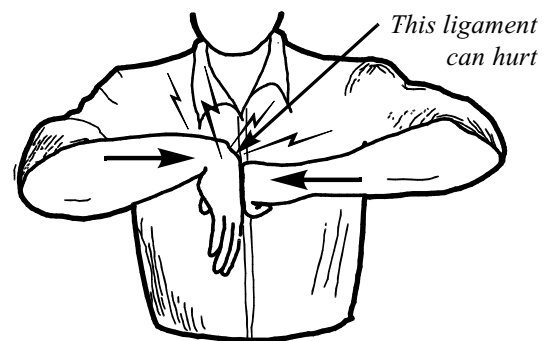
Your car has a system like this. Your car's brakes are made in two sections: the front brakes and the rear brakes. If something fails in your front brakes,

your rear brakes will still stop your car safely. At the same time a red light will appear on the instrument panel and a loud bell may ring. Perhaps, in more expensive models, a sweet voice will tell you to have your brakes checked.

In your body, pain takes the place of loud bells and flashing red lights. Pain is your warning that something needs to be fixed. That is when you really need the new back health solution.

When your muscles are not working right and ligaments in your back or neck are over-stretched, they will hurt. The painful sensation is your warning that something is wrong which you need to fix.

There are other places ligaments can hurt. For instance, relaxing the arm muscles, letting the hand flop and pressing the back of the hand like in the drawing can cause pain in the wrist ligaments.



The muscles in your neck and back are voluntary. That means *you* can direct them to work or not work. If you are not directing them, they may possibly work incorrectly or not work at all. If you do not know how your muscles should operate to move or shape a certain part

of your back, it may not operate correctly. This could stretch ligaments, causing pain.

The main thing about the solution to back health is the correct use of the back and neck springs. When the springs are operating correctly many other pains and problems can disappear. More on this later.

Yes, just like our cars, we should have had an instruction book in the glove compartment of our bodies. It should have been there when we took delivery. I can't do anything about giving your body a glove compartment, but here is the instruction book which tells how to operate your back springs correctly. Perhaps with it you will be able to relieve yourself of some pain now or in the future.

No, I won't bore you with the detail of every little muscle. If you have problems like that, you need more than this book. Many people to whom I have told the simple things in this book have been able to get their back and neck springs working correctly. Once you know how to use the main muscles and one or two other things, the other muscles usually just fall into line. I do know more and I will put it into a thorough textbook someday for those unusual special cases.

How difficult is this to do? There is no way to tell before you do it. It took me two weeks to get my neck spring working correctly. I know one very able

gentleman who could not get his to work at all.

Most people are somewhere in between. Many have only taken a couple weeks. Some may never get it corrected. Who knows why? Could be they are lazy. Sometimes a severe injury to the spine can make correction impossible.

Why has this solution not been discovered before? How did I, having never attended a medical school, discover this solution? Why didn't a much brighter and more highly qualified person make this discovery? I'll try to answer.

Part of the solution was necessity. I had bad headaches which were not getting any better. I simply had to get a solution. That gave me the incentive to keep going until I solved the problem.

Another more important part of the solution was a certain type of training which I had that most medical specialists never get. The special training I had was in the field of engineering. I had studied structural engineering as part of earning a degree in architecture. The basic principles that apply to holding up a building also apply to the human body.

Probably the most important reason I discovered the secret was I took a different look at the human body than most researchers do. I looked at it as a living organism which I - or you - control. I did not look at it as something the doctor controls or fixes.

The doctor looks at the body as something she has to fix for her patient. In that viewpoint, when she sees something wrong, she thinks *she* has to do all the work to make it right. Actually, often it is more up to the patient to control the voluntary muscles to fix the problem.

There is something else happening here. The doctor, not understanding and not being educated in engineering, thinks the healthy spine should normally be curved when looked at from the side. That is, the neck curves to the front, the upper back curves to the rear and the lower back again curves to the front.

Actually, from an engineering viewpoint, when standing or sitting the spine should be held nearly straight so it can be ready at any time go into the curve to absorb shocks. These curves are made straight by what I call the “back spring muscles.” Also, when the back is curved, the ligaments on the outside of the curve stretch, and may hurt as a warning that it isn’t being used right.

So, when the doctor looks at the sore back, he doesn't even see where the potential problem can occur. He thinks something which can give big problems is perfectly normal.

The difference is I looked at how the back actually works. I looked at what the muscles are supposed to do when the body is up and walking or running. I saw what the muscles are supposed to do and made them do it. After all, I can move my leg by making muscles operate. I can “make a muscle” to show off the strength in my arm. I can make my jaw

muscles operate to open and close my mouth to eat. In the same way I can make my back spring work by using the back spring muscles - if I know how.

I took the viewpoint that I, rather than the doctor, have to control the body. This does not mean doctors are unneeded. For instance, I could not set my own broken bone. For that I would need a doctor. However, for certain things such as relieving back or neck pain caused by improper use of the back spring muscles, the doctor cannot do it. The operator of the body has to do it. All the doctor can do is guide or teach.

That concept just is not in the typical doctor training. In fact, doctors are warned that often patients just do not follow his instructions regarding the taking of medication. The poor doctor is thus taught that patients cannot do it for themselves and that he has to do it all for them.

Another thing the doctor does is give pain relief medicine (drugs) which in effect cuts the nerve...or he just goes in and cuts the nerve with a knife.

What if you did that in your car. Let's say you are out on a lonely back road at night. The low-oil light on your instrument panel lights up. That light is annoying you. You do not want to see it. So, you tape a piece of paper over the red light. Drats, the light still glows through the paper.

The next thing you do is stop your car, get the wire cutters from the glove compartment, step out of the car, lift the hood and cut the wire to that pesky red

low-oil warning light. Then you drive happily down the road. Two miles later your engine freezes up and stops. There you are on a lonely back road with a broken car. Does that make sense? By the same token, does pain-relief medicine at those times make sense?

Also, the doctor may do surgery which, in some cases could make the back unable to curve correctly ever again.

Something else different about me is that architecture school taught me how to solve problems and recognize solutions. I looked at a drawing of the muscles in the neck. Something clicked. The light bulb went on in my mind. I had a bright idea. I noticed that a certain group of muscles have the job of making the neck operate as a spring. I observed immediately that those muscles in my own neck were not doing that job.

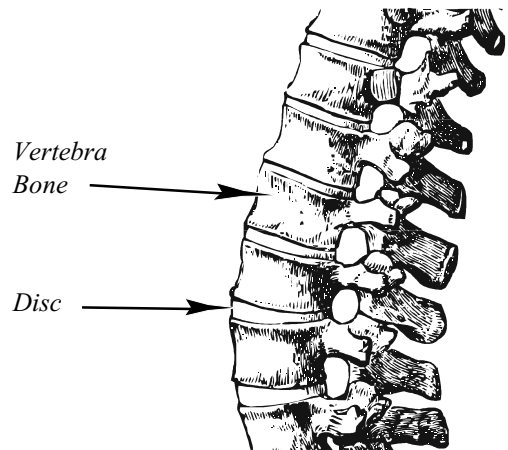
So, I tested the concept and found that indeed those muscles can and should hold the neck nearly straight. When I made those muscles do their job my neck felt better. Immediately I obtained a copy of *Gray's Anatomy*, the doctor's bible, to learn more about what muscles are in the neck and back. This started me on a major research project.

My research revealed that the entire spine should be held nearly straight by the muscles rather than allowed to curve when normally sitting, standing, walking or running. I found that the spine is made to go into a curve in the act of absorbing mechanical shocks. I found that I could train those muscles to do their job right and when they did, my pain went away.

The following is some of what I discovered. Additional results of my research is available in other books.

There are several systems of muscles which straighten the curve in the spine. One set handles the neck, another set handles the upper back and yet another set handles the lower back. These do much the same job as the springs and shock absorbers in your car.

There are also cushion-like pads between each of the vertebra bones in the back called discs. These discs do much the same job as the seat cushions in your car. Imagine driving your car down the street sitting on an old-fashioned straight back wooden chair. That is what your body would feel like walking down the street without the discs.

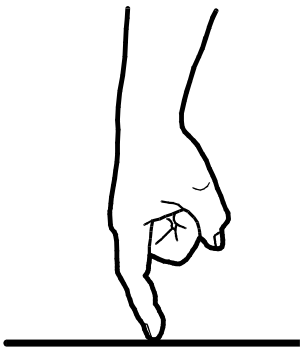


The first set of spine muscles we will take a look at are in the neck. The spine in the area of the neck curves to the front. Notice that the spine in the area of the upper back curves to the rear and in the area of the lower back once again

curves to the front. We will take a closer look at the upper and lower back later.

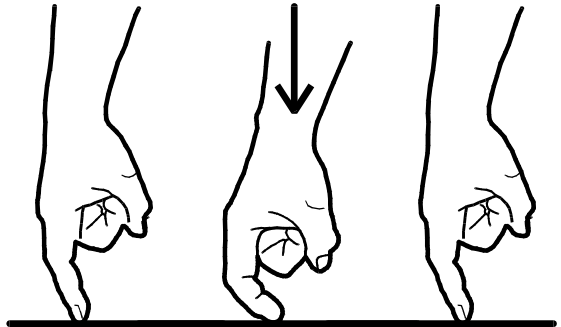


To get a better idea of how the neck works, we will make a model using our hand. To start with, make a fist, point the index finger and aim it down at the table where you are sitting. Lower your hand so the point of your index finger is touching the table.

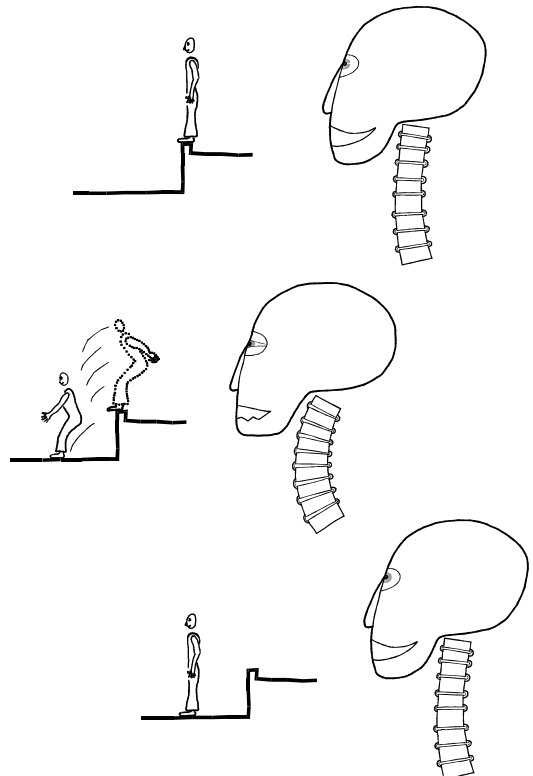


Bend the index finger slightly as in the above drawing. Let your fist be like your head with the back of your hand being like your face. Let your index finger be like your neck.

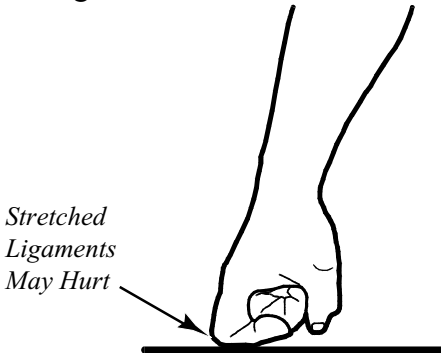
Then push your hand down while trying to keep your finger straight - but let it bend as in the drawing below. Feel how the index finger acts like a spring. This is how the neck should work as a spring to protect the head from shocks.



The next set of drawings show what happens to the spine when it is kept straight and then allowed to bend to absorb shocks.

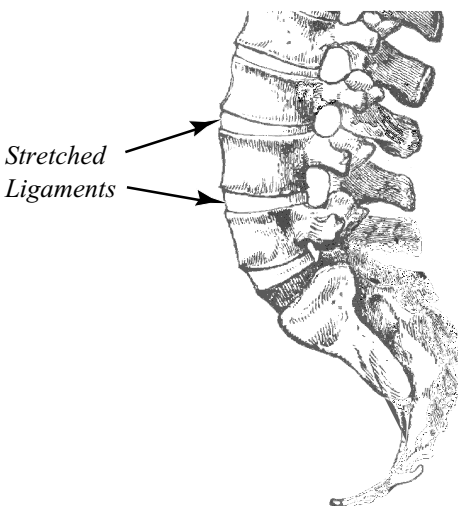


If you relax your index finger totally and keep pushing, the ligaments on the back of the finger may hurt as in the drawing below.



This is what may happen if the neck spring muscles are allowed to relax. The spine in the upper back and lower back operates as a spring in much the same manner as the neck, but with different muscles.

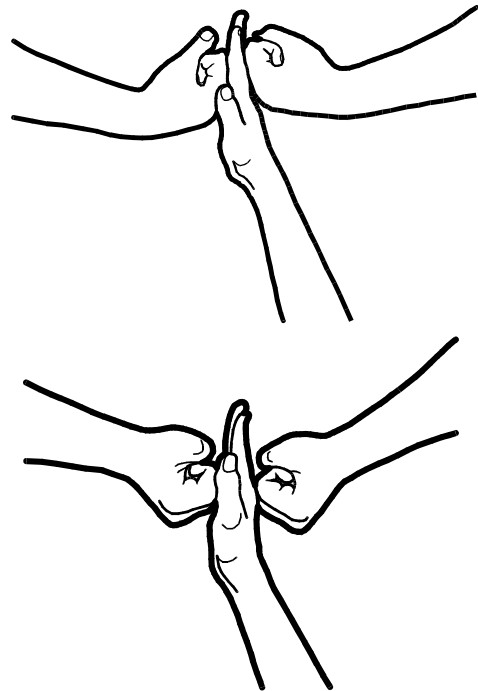
This can be seen in the following drawing of the spine in the lower back from *Gray's Anatomy* (1901 edition):.



In later chapters you will be shown how the spine muscles are to be used to make the spine act as a spring.

Allowing the spine to curve opens the door for another set of problems affecting the discs. Being softer material than the bones, the discs cannot carry so much weight per square inch. To get the idea, think of hitting a wall with your fist. Then, think of using the same force, hit the wall with your pointed index finger. The fist has much more area touching the wall than the index finger, and thus can withstand much more force.

We'll now do an experiment to get an idea what happens with the discs. For this you will need some help from a friend. First, have your friend make two fists and push the ends together as though the flat part of the fists were hitting each other.



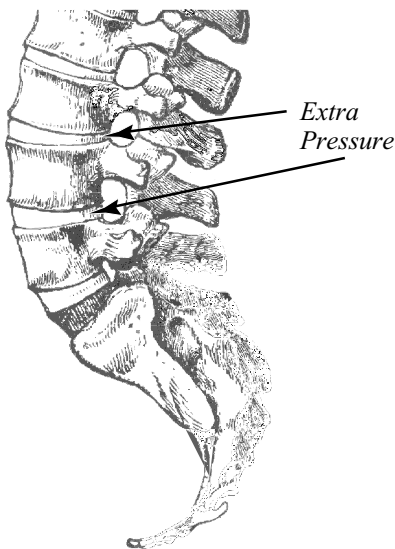
Think of the fists as two vertebra bones in your spine. Then slide your

flat, open hand between the two fists. Think of your flat hand as the disc between the two vertebra bones in your spine.

Have your friend push the fists together so you can feel some pressure on your hand.

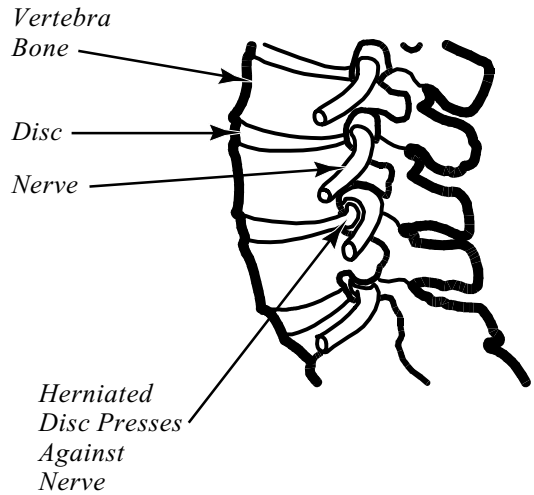
Next, have your friend rock the fists so just the points of knuckles, not the flat part, touch your hand while keeping on pushing the fists together with the same force. Feel how much more pressure is on your hand now.

The same thing happens in the spine. When the spine is curved the edges of the vertebra bones meet rather than the flat surfaces. You can see that in this drawing of the lower spine from *Gray's Anatomy*:



Just like with your friend's knuckles on your hand, when the edges of the vertebra bones press against the disc for too long, it can hurt and could

eventually even swell up or break as happens with a herniated disc - also called a ruptured or slipped disc. You can see what a herniated disc does in the following drawing:



When the flat of the vertebra bones presses on the disc there is less pressure and less possibility of breaking the disc.

Many people go to gyms to exercise several times a week just to have tight abdominal (belly) muscles. Wouldn't they be happy to learn that when they use their lower back spring muscles correctly, their abdominal muscles will automatically be tight.

Be aware that some people make fun of those who have excellent posture. I have one friend with a well developed body who slouched on purpose so he wouldn't be mistaken for a "jock," or athletic star. In his school such people were considered stuck up.

Another friend, a weight lifter with arms the size of watermelons, also slouched on purpose. People would call him "flex" because they thought he was showing off his muscular build by keeping straight posture. In fact, all good posture does is prevent possible physical problems.

I first discovered how to use the back spring in 1980. However, headaches and back pain were not the only pains my body had back then. Over the years, starting with the shoulders in 1975, I made additional discoveries about how

other muscles in the human body work. With those discoveries I also got rid of severe pains in my shoulders, chest and feet by training my muscles to work correctly.

My first book on the subject was written in 1980 and published in 1982. It was titled *Muscle 'N Bone: A User's Handbook for the Human Body* and first copyrighted in 1980. The information on how the springs in the spine work was first released to the public in that volume. There is a book I wrote entitled "A New Foot Health Solution" of how the foot arch works which can be obtained in many locations. It has information about foot pain, plantar fasciitis, heel spurs, Achilles tendonitis, flat feet and shin splints. Look for future books revealing more detailed discoveries I have made on the correct operation of other muscle systems in the human body.

For now, help for the shock absorbing in the back and for foot and shin splints pain is available here in workbook form in two books. I hope they are of benefit to you. Enjoy!