

# living with scoliosis

by ANDREW GAINES

**S**coliosis is rotation and sideways curvature of the spine. While there is no "cure" for severely degenerating scoliosis, many people have found it possible to limit the degeneration, free themselves of pain, and lead normal satisfying lives. They have done this by learning how to make the best possible use of their body given their circumstance. The life of Sally Swift, a riding teacher in the United States, serves as an example. Sally was recognised as having severe scoliosis as a young girl in 1915, and began to work with Mabel Todd, a pioneering body educator. Miss Todd was able to improve Sally's capacity to balance her body, despite her scoliosis. Miss Todd recommended that Sally do balanced exercise, so she took up horse back riding. Sally did require the use of a brace, but, as she puts it:

*"By developing equal use of my two legs in riding, I strengthened the muscles in my lower back and balanced my uneven muscle tone. Miss Todd's work prevented me from tipping off centre by making the spinal curvature compensate itself. The top of my head was above my pelvis and not off to one side, as is the case with many scoliotic people. I was very fortunate because people in my circumstance were often put into full-body casts or had spinal fusions or other unpleasant experiences I was able to avoid. I was given the freedom of many years of enormous happiness on a horse."*

Sally became an expert in applying the principles of good body use to riding, and recently published an excellent book on the topic called *"Centred Riding."* Now in her eighties, she is still enthusiastically giving workshops on *Centred Riding* to riding instructors.

There are now a number of excellent techniques for improving body function. One that is especially good for working with scoliosis is the Feldenkrais Method of Body Awareness. Moshe Feldenkrais was an Israeli physicist who explored the relationship between the nervous system and the body. Moshe Feldenkrais' life passion was to work out how to make practical application of the fact that the central nervous system controls the body. He developed a system to alter body organisation by considering the relationship between body parts, thereby improving function. The purpose of this article is to show how the person with scoliosis can be helped by improving body functioning.

## Two Kinds of Scoliosis

There are two main factors in scoliosis. One is imbalance in bone growth, where one side grows more than the other. This kind of scoliosis is called "organic." The other significant factor in scoliosis is an imbalanced pattern of body use. This kind of scoliosis is called "functional." In some cases both the organic and the functional factors are operating simultaneously, so that an imbalanced manner of body use (functional scoliosis) tends to make the organic scoliosis worse. The Feldenkrais Method is particularly effective in reducing the functional component of scoliosis.

## Inducing a Functional Scoliosis

A functional scoliosis can be induced by quite ordinary activities. It is important to understand this, because if you can see how a scoliosis can be produced it gives some insight into how to correct it. A simple example: imagine a woman carrying a heavy shoulder bag by a strap over her right shoulder. She will tend to raise her right shoulder and lean to the opposite side – thus introducing a sideways curve into her spine. If she does this enough, it becomes a habit, and she has developed a scoliosis. To put this into

an image, "just as a constant wind warps the way a tree grows, so habitual imbalanced patterns of body use affect the curvature of the spine." Therefore, if we can reduce the tendency to use the spine in an imbalanced way, we reduce the force that makes scoliosis worse. Heather's story illustrates this.

## Heather's Story – Improving a Functional Scoliosis

Heather was 15 when her father, a doctor, recognised she had scoliosis. Her scoliosis was functional – a matter of body ignorance. When I examined her I realised that she understood how to curve her spine to the left, but had a poor conception of how to curve her spine to the right. Why? Nobody knows, any more than we know why many people walk with one foot turned out more than another. From a practical point of view it doesn't necessarily matter, provided we can find a means to alter it. Over the course of a few lessons Heather came to sense the details of how her ribs, spine and hip joints needed to adjust when curving to her right, and her spine spontaneously straightened.

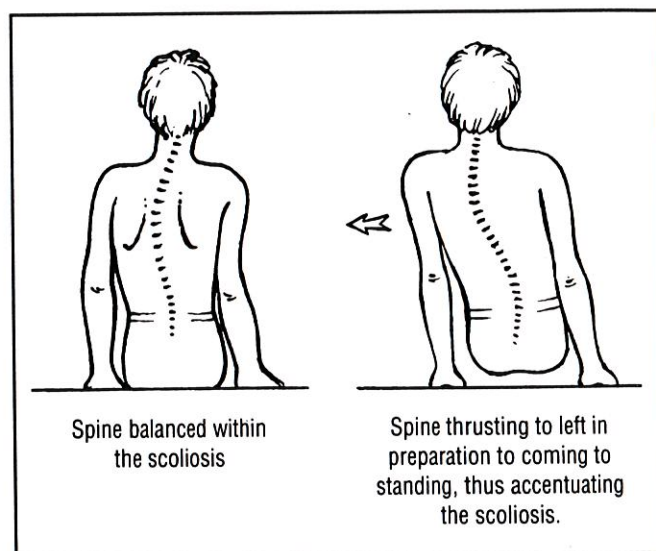
## James' Story – Functional Improvement of an Organic Scoliosis

Even where the primary component of scoliosis is organic, improving the functional component can help. James' scoliosis was shaped by a difference in the rate of bone growth between the left side of his body and his right side. By age 16 James had developed a 42 degree curvature of his spine. His curvature had doubled during a year's growth spurt, and he was scheduled for surgery when I began to work with him. The ribs on his left side were much larger than the ribs on his right side. Naturally his spine was curved to his left. I observed that when James came from sitting to standing he did so by thrusting his torso to his left, thus exaggerating his curve. You can see from the diagram how this makes his scoliosis worse. This was the "functional" component of James' scoliosis, overlaid on the organic difference in rate of bone growth.

James was not aware that he thrust to the left when he stood up. This was the only way he knew, and it seemed normal to him. In fact, to try to stand up in a more balanced way was quite awkward at first. He was unable to sense how to organise his body to do it. To help him discover new movement possibilities in his body, I had him lie down on a low padded table, so that he didn't have to hold his body against gravity. I used gentle movements to help him sense how both his vertebrae and his ribs could move in new ways. I also helped him mobilise his neck, legs, feet and shoulders more fully. All the parts of the body are involved

in well organised movement. James had an extended series of lessons – three times a week at first, and then reducing to one a week.

The effect of these lessons was profound. Children with scoliosis are often extremely clumsy. The improvements in their coordination that come through the Feldenkrais method do not appear on an x-ray, but they make an enormous difference to their lives. James gained a normal cross pattern style of walking, and no longer looked awkward in his movements. He commented that he had lost pain that at first he didn't know he had, because he had become numb to it. He learned to dance, and loved it, and he became skilled at basketball and other sports. He found that he could enjoy the movements of his body. Not bad for someone of whom his family said, "He is so clumsy he would trip over a garden hose."



At the presurgery examination, James' surgeon noted that the amount of deterioration was significantly less than he had predicted. Probably this was because James' growth spurt was over. Nevertheless, the pattern of body movement that would have made James' scoliosis continue to deteriorate was well in place. James' surgeon postponed surgery, but continued to monitor James. After two years, when James' spine showed no further deterioration, he withdrew his recommendation for surgery. His wry comment, "You have escaped my knife."

James' story is not unique. Many people with scoliosis have been helped by the Feldenkrais Method. Sometimes the spine measurably lengthens, and the scoliosis is reduced. But even if the deterioration only halts, and pain eases, as with James, we may regard that as a highly successful outcome. James avoided the cost and trauma of surgery, and instead dramatically improved the functional capability of his body.

## Feldenkrais Lessons – Learning with Ease

Most people find receiving Feldenkrais lessons quite pleasant. The lessons are usually given lying down, so it is easy to relax. The movements are very gentle and sensitive. The practitioner is not trying to force any part of the body to move. Instead, he is “encouraging” parts to move.

Whenever he finds any resistance to a movement, the practitioner slows down and explores the area gently, until the person himself discovers how to do the movement with ease. We call Feldenkrais sessions “lessons” because we are after this kind of learning. Severe scoliosis often affects teenagers – girls more than boys. Many schools are now instituting screening programs to detect scoliosis in its early stages. The conservative medical approach to scoliosis is first to watch it, and then if it becomes severe enough to attempt to handle it either by braces or by back surgery. However, the sooner body awareness lessons are instituted, the better control the child will develop over his or her own body, thus minimising the long term effects of the scoliotic tendency.

## How Pain is Created – and Why It Eases

It is helpful to understand something about the mechanism of pain in scoliosis. Why do people hurt? Generally it is not because a nerve is pinched, or something like that. Pain occurs because some muscles are overworked and strained, and they complain. If we can change the overall body organisation so that the muscles are no longer so severely overworked, the pain will stop.

## Lee’s Story – Becoming Pain Free Despite Severe Scoliosis

This was evident with Lee, a 34 year old woman who had 64 degree scoliosis. Lee was in her mid thirties when it was realised that her formerly stable scoliosis was deteriorating. X-ray monitoring showed that her curve was increasing at 4 degrees a year. Lee was in pain. Although her surgeons recommended surgery, Lee wanted to find another alternative, and embarked upon a series of Feldenkrais lessons. Lee lost her pain after the fourth session. In Feldenkrais lessons we work to show the person how their back can be more supple. Lee was responsive to this. There was one vertebrae in her lower spine that was extremely displaced and couldn’t move at all, but the rest of her spine was quite available to move. Lee had been holding herself stiffly, and that was the cause of her pain. When I showed her how she could move the rest of her torso more freely, her pain disappeared. The only time her pain came back was on a few occasions when she was under exceptional stress. The increase in curvature of Lee’s spine also

stopped. As with James, when Lee’s spine remained stable for two years, and she remained pain free, Lee’s surgeon withdrew his recommendation for surgery. The sophisticated knowledge of the nervous system and movement that lies at the heart of the Feldenkrais method are new developments in human understanding. This new approach offers the real possibility that one can live with scoliosis, without surgery, just as Sally Swift, James, and Lee did.

## Allowing Time for Body Education – a Risk, or Being Conservative?

When scoliosis is in its early stages, it is normally only monitored periodically. During this period, when otherwise nothing would be done, there is no risk in allowing time for Feldenkrais lessons. Some, however, may have come to a point where the rate of deterioration and severity of curvature is high enough that surgery is considered. There is no fixed point for this. Therefore we may raise this question: when a scoliosis nears the point where surgery would be recommended, will anything terribly adverse happen if the scoliosis progresses a few degrees more? If not (and I believe this is usually the case) then someone who wanted to explore an option to surgery could undertake a series of Feldenkrais lessons while still monitoring the curvature. If the spine continued to deteriorate, then surgery would remain an option. On the other hand, if the deterioration stopped, then the person would be relieved of the anticipation and real trauma of surgery, and would have gained greatly improved body use.

## Summary

Severe scoliosis doesn’t necessarily have to lead to surgery or bracing. While there is no “cure” for degenerating scoliosis, many people have found it possible to stop the degeneration, free themselves of pain, and lead normally satisfying lives. The key to this is to identify and change habitual patterns of body organisation that tend to make the scoliosis worse.

The Feldenkrais method provides a way to do this. Feldenkrais practitioners complete a four year professional training program. For information about practitioners in your area, contact the Australian Feldenkrais Guild, their non-profit professional organisation.

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