

# **Scoliosis Treatment: Why Health Professionals Must Treat the Whole Person, Not Just the Spine**

Scoliosis is a condition that affects the whole person, not just the spine. The Cobb angle is an important sign for health professionals to measure in scoliosis, but it is not the only reason to treat scoliosis. Patient care must extend beyond the spine. It must encompass the entire human being.

## **The focus of health care professionals**

Yes, there are structural changes that occur to the spine with relative anterior spinal overgrowth (RASO) regularly cited in the literature. The obvious lateral deviation that comes with scoliosis makes it very easy for health professionals to fixate on the Cobb angle, which is a 2D measurement taken from an X-ray however scoliosis is a 3D condition. There is also a focus on the posterior-anterior view of the X-ray, however health professionals must remember that scoliosis encompasses changes in all three planes, but particularly in the transverse plane because rotation of the spine will exist with scoliosis.

## **Questioning the traditional approach**

Health professionals have a wide variety of training, expertise, and experience when it comes to scoliosis. The more traditional approach in the medical profession has been the 'wait and see' approach, which is waiting to see if the Cobb angle progresses to 50 degrees or more so that surgery can be recommended. This has stemmed from a lack of strong evidence to show that bracing and scoliosis specific exercises are effective in treating scoliosis and also a fixation on the reduction of the Cobb angle being the goal of treatment, but this is rapidly changing. We now have a situation where there is more evidence emerging to support bracing and scoliosis specific exercises.

This support for conservative treatment is not just about changing the Cobb angle. Patients are also seeking conservative treatment options and are frustrated by the 'wait and see' approach (1). We need to recognize that there are many more reasons beyond the Cobb angle to 'treat' the patient with scoliosis.

## **Why do we treat scoliosis?**

A consensus paper by international scoliosis experts gives us some strong insight into why health professionals treat scoliosis and why patients seek treatment (2). These experts in scoliosis assessment and treatment agreed that patients will often need to address many factors beyond the Cobb angle, including but not limited to:

- aesthetics
- pain
- function
- minimizing the need for treatment later in life (2).

Unfortunately, it's easy to become trapped in focusing on the Cobb angle alone. This may have evolved from a medical tendency to 'wait and see' if the Cobb angle progresses to the point of surgical recommendation. It's not always easy to navigate appropriate recommendations for scoliosis when there is still a large push from some untrained medical professionals to seek inappropriate treatments for patients. It can be easy for these health professionals to also overlook the emotional and mental impacts that scoliosis has.

## **How is lifestyle affected?**

When we look at the impacts of scoliosis on the individual, it's quite clear that these can extend beyond the spine. As health professionals, it's vital that we don't catastrophize scoliosis and also that we are aware of whether or not the patient is catastrophizing the situation. This can easily happen as a result of other influences such as knowing a friend who had a negative treatment outcome. A holistic approach is always necessary. Let's look at a few examples of lifestyle considerations for patients:

- The impact of the postural asymmetry can be significant for teens that are wanting to head to the beach on the weekend or wear a particular outfit.
- Children may be fearful of wearing a brace to school.
- They may be wondering how their sport will be affected.
- The pain that is associated with some cases of scoliosis also needs to be addressed.
- The change in biomechanics of the trunk may be significant for an elite tennis player who is finding that their serve style is changing as the deformity in the trunk changes.

The structural changes caused by scoliosis may affect the way the trunk moves. Think about this in terms of impact on sports, posture and daily activities.

## **How do the structural changes affect patients' lives?**

The asymmetry that results from RASO needs to be addressed in the treatment of scoliosis. For example, the rotating rib cage can affect range of motion of the shoulders. This might not be significant for some people but for others, it can create huge problems.

Let's look at a teen tennis player example (you can extrapolate this to many other scenarios). If a tennis player is starting to lose tennis matches because their serve is losing impact but the doctor or other health professional they are seeing is not assessing the impact of the scoliosis posture on the child, this might lead to one very unhappy teenager!

Think about it. This teen turns up to practice for many hours per week. They are used to having a powerful serve and then slowly this starts to change. The coach is trying to help to manage the changing serve stroke but can't work out 'why' the teen just can't produce the right swing anymore. A missed underlying scoliosis or a failure to address biomechanical changes occurring may be the missing piece of the puzzle. This can be incredibly frustrating! Teens are already navigating an often turbulent and challenging period of their lives. Teens with scoliosis may have these challenges compounded.

## **Mental health and scoliosis**

Let's now think about the psychological state of the person with scoliosis. In rare instances, patients realize that they can live totally unaffected by their scoliosis. However, we must always be aware that this isn't always the case. Sometimes the patient doesn't realize that they are affected mentally and emotionally by their scoliosis. Perhaps you can check in with the parents of a teen patient with scoliosis. Has a parent reported to you that their teen daughter stopped wearing jeans because they don't 'fit' properly? Is the patient reluctant to head to the beach because they don't want people to see the uneven rib cage while wearing a pair of swimmers? As isolated instances, these may not be significant, but over time or combined with other challenges such as strained friendships at school or difficulties at work, these issues may compound.

It's important for the person with scoliosis to feel 'heard' by their family members and their scoliosis health professional. Not all health professionals are trained or have the expertise to treat the scoliosis spine and the impacts of the scoliosis on the individual. If you are not specifically trained in scoliosis assessment and management then it is important to refer the patient for appropriate assessment.

### **Can conservative scoliosis treatment help the 'whole person' not just the spine?**

A scoliosis brace, such as Scolibrace®, combined with scoliosis specific exercise that stops a 30-degree curve from progressing during the fast growth period of the adolescent years may also contribute to:

- improved muscle strength
- improved muscle balance
- a more neutral coronal balance
- reduction in pain.

### **Spread awareness of scoliosis!**

Scoliosis Awareness Month in June is an ideal time to spread awareness of scoliosis in the community and amongst your colleagues. If you or someone you know is affected by scoliosis it may be timely to reach out to them to see how they are going. It's also important to recognize that school screening for scoliosis is not occurring in many places around the world. It's important these cases are not missed and that all patients are given the opportunity to have the right treatment at the right time. Early diagnosis, before the structural changes are significant, can increase the chances of 'success' of conservative treatment options. Remember that why spinal fusion surgery has a time and a place, many patients can benefit from early conservative treatment.

Scoliosis trained health professionals can work with the patient, and where applicable, the parents, to treat the whole person, not just the spine. Instead of focusing just on the Cobb angle, addressing patient goals and desired outcomes of treatment are imperative to success.

### **References:**

1. Berdishevsky H, Lebel VA, Bettany-Saltikov J, Rigo M, Lebel A, Hennes A, Romano M, Białek M, M'hango A, Betts T, de Mauroy JC, Durmala J. Physiotherapy scoliosis-specific exercises - a comprehensive review of seven major schools. *Scoliosis Spinal Disord.* 2016 Aug 4;11:20. doi: 10.1186/s13013-016-0076-9. PMID: 27525315; PMCID: PMC4973373.

2. Negrini S, Grivas TB, Kotwicki T, Maruyama T, Rigo M, Weiss HR; Members of the Scientific society On Scoliosis Orthopaedic and Rehabilitation Treatment (SOSORT). Why do we treat adolescent idiopathic scoliosis? What we want to obtain and to avoid for our patients. *SOSORT 2005 Consensus paper.* *Scoliosis.* 2006 Apr 10;1:4. doi: 10.1186/1748-7161-1-4. PMID: 16759352; PMCID: PMC1475888.

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