**Scoliosis Surgery: the Untold Truth**

Every year in the United States, roughly 20,000 Harrington rod implantation surgeries are performed on patients with scoliosis, at an average cost of $120,000 per operation. One-third of all spinal surgeries are performed on scoliosis patients.

Every year, about 8,000 people who underwent this surgery in their youth for the correction of their scoliosis are legally defined as permanently disabled for the rest of their lives. Even worse, follow-up x-rays performed upon these individuals reveal that, an average of 22 years after the surgery was performed, their scoliosis has returned to pre-operative levels. The Harrington rods inserted into their spines will either bend, break loose from the wires, or worse, break completely in two, necessitating further surgical intervention and removal of the rod. Once the rod is removed, corrosion (rust) is found on two out of every three.

After the operation is performed, the average patient suffers a 25% reduction in their spinal ranges of motion. Non-fused adult scoliosis patients do not have this same impairment. This flatly contradicts the claim that having a steel rod fused to your spine will not affect your mobility, physical activities, or quality of life.

These facts are never shared with the patient prior to the surgery. Parents do not choose the Harrington rod implantation procedure because it is the best choice for their son or daughter, but rather because they are misled into believing that it is the only choice. However, many studies suggest that the side effects of the surgery are worse than the side effects of the scoliosis itself. Consider the titles & conclusions of the following studies:

**Treating Scoliosis in Young Unneeded**
Journal of the American Medical Association (JAMA), Stuart Weinstein, MD, University of Iowa, 2003.

“Many with curvature of spine go on to lead normal lives. Many adolescents diagnosed with spine curvatures can skip braces, surgery or other treatment without developing debilitating physical impairments, a 50 year study suggests.”

**Long-term results of quality of life in patients with idiopathic scoliosis after Harrington instrumentation and their relevance for expert evidence**

“CONCLUSION: Forty percent of operated treated patients with idiopathic scoliosis were legally defined as severely handicapped persons 16.7 years after the surgery.”

**Medical Complications in scoliosis surgery**
Curr Opin Pediatr 2001 Feb;13(1):36-41

“[Complications] include the syndrome of inappropriate antidiuretic hormone, pancreatitis, superior mesentary artery syndrome, ileus, pneumothorax, hemothorax, chylothorax and fat embolism. Urinary tract infections, wound infection and hardware failure are not addressed.” [They were not addressed because happened so often!]
**Results of Surgical Treatment of Adults with Idiopathic Scoliosis**


“Frequency of pain was not reduced... pulmonary function did not change... 40% had minor complications, 20% had major complications, and... there was 1 death [out of 45 patients]. In view of the high rate of complications, the limited gains to be derived from spinal fusion should be assessed and clearly explained to the patient.”

**Corrosion of spinal implants retrieved from patients with scoliosis**

Akazawa T, Minami S, Takahashi K, Kotani T, Hanawa T, Moriya H.

Department of Orthopedic Surgery, Graduate School of Medicine, Chiba University, 1-8-1 Inohana, Chiba, 260-8670, Japan. J Orthop Sci. 2005;10(2):200-5.

“Corrosion was seen on many of the rod junctions (66.2%) after long-term implantation.”

**Scoliosis curve correction, thoracic volume changes, and thoracic diameters in scoliotic patients after anterior and posterior instrumentation**

Int Orthop 2001;25(2):66-0

“The correlation between the change in Cobb angle and the thoracic volume change was poor for both groups.” [e.g., whether fused in the front or back of the spine, surgery will not improve cardiopulmonary function.]

**Radiologic findings and curve progression 22 years after treatment for AIS**

Spine 2001 Mar 1;26(5):516-25

“Initial average loss of spinal correction post-surgery is 3.2 degrees in the first year and 6.5 after two years with continued loss of 1.0 degrees per year throughout life.” [So, if a 50 degree Cobb angle is corrected by surgery to 25 degrees, it will return to its pre-operative condition of 50 degrees after roughly twenty years.]

**Prospective Evaluation of Trunk Range of Motion in AIS Undergoing Spinal Fusion**

Spine 2002 Jun 15;27 (12):1346-54 Engsberg et al, Wash U, St. Louis, MO

“Whereas range of motion was reduced in the fused regions of the spine, it was also reduced in un-fused regions [emphasis added]. The lack of compensatory increase at un-fused regions contradicts current theory.”

**Health-related quality of life in patients with AIS; a matched follow-up at least 20 years after treatment with brace (BT) or surgery (ST)**

European Spine Journal 2001; Aug; 10(4): 278-88

“49% of surgically-treated patients admitted limitation of social activities due to their back.”

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**Paul Harrington**, known for inventing the surgery that implants metal rods in scoliotic spines, stated in 1963 that, "metal does not cure the disease of scoliosis, which is a condition involving much more than the spinal column.”
Out of the scientific journal Pediatric Rehabilitation comes perhaps the most truthful and compelling study ever published on scoliosis surgery:

**Impact of Spine Surgery on Signs and Symptoms of Spinal Deformity**


**Hawes, M.**

University of Arizona, Tucson, AZ 85721, USA.

“Pediatric scoliosis is associated with signs and symptoms including reduced pulmonary function, increased pain and impaired quality of life, all of which worsen during adulthood, even then the curvature remains stable. Spinal fusion has been used as a treatment for nearly 100 years. In 1941, the American Orthopedic Association reported that for 70% of patients treated surgically, outcome was fair or poor: an average 65% curvature correction was reduced to 27% at greater than two year follow-up and the torso deformity was unchanged or worse. Outcome was worse in children treated surgically before age 10, despite earlier intervention. Today, a reduced magnitude of curvature obtained by spinal fusion in adolescence can be maintained for decades. However, successful surgery still does not eliminate spinal curvature and it introduces irreversible complications whose long-term impact is poorly understood. For most patients there is little or no improvement in pulmonary function. Some report improved pain after surgery, some report no improvement, and some report increased pain. The rib deformity is eliminated only by rib resection, which can dramatically reduce respiratory function even in healthy adolescents. Outcome for pulmonary function and deformity is worse for patients treated surgically before the age of 10 years, despite earlier intervention. Research to develop effective non-surgical methods to prevent progression of mild, reversible spinal curvatures into complex, irreversible deformities, is long overdue.”

These x-rays show Harrington rods that bent and broke while still inside the patient’s body. Many surgeons will refuse to operate on this condition, leaving the patient with few options to alleviate their pain & suffering.
Research & References

1.) Idiopathic Scoliosis: long-term follow-up & prognosis in untreated patients

2.) The estimated cost of school scoliosis screening
   *Spine* 2000 Sep 15;25(18):2387-91 Yawn & Yawn

3.) Radiologic findings and curve progression 22 years after treatment for AIS
   *Spine* 2001 Mar 1;26(5):516-25

4.) Corrosion of spinal implants retrieved from patients with scoliosis

5.) The Effect of Scoliosis Fusion Surgery on Spinal Ranges of Motion: a Comparison of Fused & Nonfused Patients with Idiopathic Scoliosis
   *Spine* 2006;31(3):309-314

6.) The etiology of Adolescent Idiopathic Scoliosis
   *Am J Orthop* 2002 Jul;31(7):387-95

7.) Adolescent Idiopathic Scoliosis: the effect of brace treatment on the incidence of surgery
   *Spine* 2001 Jan 1;26(1):42-7

8.) Long-term results of quality of life in patients with idiopathic scoliosis after Harrington instrumentation and their relevance for expert evidence
   *Z Orthop Ihre Grenzgeb* 2002 Sep-Oct;140(5):492-8

9.) The Search for Idiopathic Scoliosis Genes
   *Spine* 2006;31(6):679-81

10.) The Ste-Justine Adolescent Idiopathic Scoliosis Cohort Study
    *Spine* 1994 Jul 15;19(14):1573-81

11.) Long-term follow-up of patients with untreated scoliosis: a study of mortality, causes of death, and symptoms
    *Spine* 1992 Sep 17;(9):1091-6

12.) Back pain and disability after Harrington rod fusion to the lumbar spine for scoliosis

13.) Results of surgical treatment of adults with idiopathic scoliosis

14.) Thoracic Scoliosis and restricted neck motion: a new syndrome?
    *Eur Spine J* 1998;7:155-57