

# Benefit of Schroth Physical Therapy and 3-Dimensional Bracing on AIS Case

Case History: 3-Year Follow-Up (February 2009)

Spinal Dynamics of Wisconsin, SC (SDW)

## Summary

- At initial diagnosis (age 12), orthopedic surgeon advised observation only
- Prior to Schroth PT and 3D brace, the curve progressed, despite Boston brace
- Initiated Schroth PT and 3D brace at SDW (age 13.5) with goal of curve stabilization
- Within one year of Schroth PT and 3D brace, curve progression stopped (despite rapid growth)
- After 2½ years of Schroth PT and 3D brace (age 16), the total Cobb reduced nearly 50%
- At full skeletal maturity (age 16.5), the curve is stable
- At discharge, the goal of curve stabilization is exceeded

## Overview

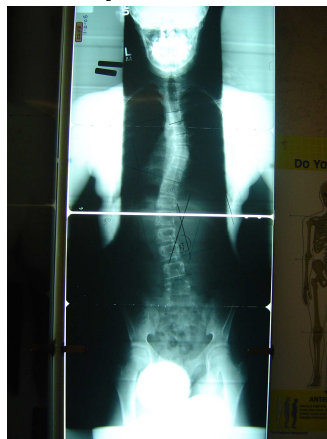
| Age                        | 12                 | 13*                | 14                 | 15                 | 16                 | 16.5              |
|----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
| Skeletal Maturity (Risser) | 0                  | 0                  | 1-2                | 3                  | 4                  | 5                 |
| Growth                     | < 1"               | < 1"               | 3"                 | 2"                 | 1"                 | 0                 |
| Cobb                       | 17 Thor<br>20 Lumb | 26 Thor<br>28 Lumb | 33 Thor<br>35 Lumb | 33 Thor<br>28 Lumb | 24 Thor<br>12 Lumb | 26 Thor<br>3 Lumb |
| Risk of Progression**      | 100%               | 100%               | N/A                | N/A                | 10%                | 0%                |
| Brace                      | None               | Boston             | 3D                 | 3D                 | 3D                 | Night only        |
| Therapy                    | None               | None               | Schroth            | Schroth            | Home Exercise      | Home Exercise     |

### Notes:

3D Bracing: Cheneau Type Brace following the Principles of Rigo

RFP: Risk of Progression, calculated with Lonstein Carlson equation using Risser, Age, and Cobb for curves between 20-30 degrees. RFP is N/A when Cobb exceeded 30 degrees

## Radiological Comparison



Age 13



Age 16.5

For information, visit [www.sdwpt.com](http://www.sdwpt.com) or contact Cindy Marti, PT at [info@sdwpt.com](mailto:info@sdwpt.com).