# FOR ADOLESCENT IDIOPATHIC SCOLIOSIS



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### THE CHARLESTON BENDING BRACE™ OBJECTIVES

 Maintain the patient's scoliotic curvatures at, or near, pre-brace values throughout the growth period and on to skeletal maturity.

 Promote better brace wear compliance through the nocturnal wear aspect.

## CBB CLINICAL OUTCOMES ARE GUIDED BY THREE PRINCIPLES:

- 1. **Growth Modulation (unbending).** The rate of the epiphyseal growth plate is affected by pressure applied to its axes. An area of increased pressure inhibits growth and an area of decreased pressure accelerates growth.
- 2. In-Brace Correction: The amount of in brace correction is a predictor of long-term outcome of the treatment. CBB principles overcorrect a spinal curve in accordance with the spine flexibility.
- **3. Patient Compliance:** Patient comfort and compliance is promoted through nocturnal wear.

#### Recommendations

 Start with night time bracing for premenarchal girls with small curves.

 If night time bracing is failing, then switch to night time bracing in conjunction with daytime bracing.

If combination bracing fails switch to daytime bracing.

#### **ADVANTAGES OF THE CBB PROGRAM**

- 1. Allows full, unrestricted musculoskeletal development.
- 2. Allows opportunity for athletic participation.
- 3. Causes fewer and less severe complications.
- 4. Complications are minimized due to a fewer number of hours spent in the brace over a 24-hour period.
- 5. Results can be assessed without the customary long-term follow-up.
- 6. Decision-making regarding success or failure of the program can be made earlier.



### What has changed in the last hundred or so years?

- More knowledge
- Advances in Technology
- Better Materials
- Better Fit

Our methods are very similar, but perhaps we have a better understanding of the biomechanics!