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## **ADVANCED 3 - D TREATMENT OF SCOLIOSIS (C2) ACCORDING TO THE PRINCIPLES OF C.L. SCHROTH**

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### **BSPTS Program Purpose**

The BSPTS program teaches 3-D scoliosis treatment according to the principles of Katharina and Christa Lehnert Schroth that began in Germany in the 1920's. The Institut Elena Salvá in Barcelona offered Schroth' course for physiotherapists from 1989 to 2008. The principles have been further developed by Dr. Manuel Rigo and the staff of the Institute of Elena Salvá and are now offered in courses through BSPTS.

The treatment is based on sensory-motor and kinesthetic principles. Goals of treatment are to facilitate correction of the altered posture, and teach the patient to maintain the corrected posture in daily living activities in order to minimize scoliosis progression and further spinal deformity. In this course, therapists are trained to treat patients on a 1:1 basis. With experience and additional training, therapists may advance to treating in groups or using intensive programs. This technique has been used in Europe for decades and has been available in the United States since 2003.

### **Course Objectives**

1. Understand multidisciplinary approach to conservative management of scoliosis
2. Perform an individualized scoliosis patient clinical evaluation
3. Understand radiological variables in scoliosis assessment and classification
4. Identify scoliosis patients appropriate for conservative management
5. Develop specific treatment plans and goals based on the patient presentation
6. Treat patients with basic 3-D principles of correction according to Schroth principles
7. Treat in 5 basic starting positions (supine, prone, side-lying, sitting and standing) as well as in some specific starting positions according to the curve pattern
8. Teach joint protection and proper ADL principles for patients with scoliosis
9. Understand the different way to apply Schroth principles according to age and patient condition: Adolescents, adults, and adults with painful degenerative scoliosis.
10. Understand Chéneau-RSC bracing principles

### **C2 Course Content**

The C-2 course is a hands-on course covering the specific PT exercises to treat adolescents and adults diagnosed with idiopathic scoliosis according to the Barcelona Scoliosis Physical Therapy

School (BSPTS) following Schroth principles. Participants will be observed, supervised and evaluated while providing specific treatment to patients with different curve patterns according to the principles and methods learned during the C1 course. Patient evaluation and principles of correction for the different curve patterns are also reviewed during this present C2 course. There will also be a presentation on brace principles according to Chêneau-RSC principles. There will be a final evaluation based the ability of the participant to apply the different principles including:

- 1) Patient evaluation and classification;
- 2) Selection of a proper exercises program according to individual indications;
- 3) Starting position for the exercises;
- 4) Passive corrections;
- 5) Oral instructions and manual indications and techniques to help the patient to reach the best active correction;
- 6) Corrective breathing techniques;
- 7) Stabilization and muscle activation techniques

## **C2 Program**

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### **Part I Review of Principles: 8 hours**

Review of the clinical and radiological criteria for classification (2 hours). Review of the routine of corrections for each functional type following the principles of correction including: 3C, 4C, N3N4, single Lumbar or single Thoracolumbar.

### **Part II Practical Workshop focusing on evaluation: 4-6 hours**

- a) Minimum of one patient per participant.
- b) Every PT will evaluate clinically and radiological every patient and will prepare a report (on a provided form) on each patient, including the specific recommendations regarding passive and active corrections, program of exercises and general treatment recommendations. Each PT will prepare their report independently of other course participants.

### **Part III Interactive Workshops on patient evaluations: 4 hours**

The instructor, after checking all of the reports will present case by case and lead an interactive discussion according to the participant's reports.

### **Part IV Practical Workshop on specific exercises: 18-24 hours**

Every PT will work for 3-4 hours with each of 6 different patients including a minimum of 3 functional types, in the selection and training of a program of exercises for each patient.

### **Part V Final Evaluation: 6-10 hours**

Each particular PT is observed by the group while being examined. The Instructor will evaluate according to a provided form and protocol. The exam will consist of working on four exercises for two patients and responding to specific questions from the instructor.

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### **BSPTS Relevant History**

Elena Salvá (PT), founder of the Institut Elena Salvá, was trained at the original Katharina Schroth Clinic in Germany in the 1960's. Since then, Schroth has been practiced at the Elena Salva Institute in Barcelona. In 1989, Dr Manuel Rigo and Dr Gloria Quera-Salvá received approval to begin teaching Schroth certification courses for physical therapists at the Institut in Barcelona and later in Israel and the United States. In 2009, they founded BSPTS to further develop scoliosis curriculum for educating physical therapists. BSPTS teaches the original principles of Schroth, with advanced concepts learned during years of clinical experience and research. The first International Body of Instructors for the school was formed in 2011 in order to begin offering scoliosis rehabilitation education courses across the world.

### **Course offerings include:**

1. C1 – Certification Course 1
  - 10 day certification course for treating individual patients with AIS
  - Requires passing certification exam given at end of course
  - Requires C2 course within 1-3 years after C1 in order to maintain C1 certification
2. C2 – Certification Course 2
  - 6 day certification course for treating in group therapy, adults with painful scoliosis, degenerative scoliosis and learning more details on bracing principles
  - Requires passing certification exam given at end of course
  - Following C2 certification, no further courses are required to maintain certification status

### **Ethics:**

All physical therapists trained are required to abide by BSPTS practice ethics and will be asked to sign an Ethics of Practice Agreement upon completion of the course.

### **Key areas include:**

1. Physical therapy is intended to be part of a treatment team, including physician and orthotist.
2. Physical therapy is not intended to take the place of bracing or surgery when either is indicated, but is intended to be a compliment to a comprehensive treatment approach.
3. Indications for treatment will always be based upon medical criteria.
4. Clear expectations of the goals of physical therapy will be given to all patients treated.
5. Websites used to promote physical therapy should contain proper information approved by BSPTS.
6. Training of other therapists is prohibited unless completing BSPTS instructor training.

### **BSPTS Educational Process**

Courses for certification are open only to *licensed physical therapists*. The Advanced Certification course (C2) is open only to physical therapists certified in the **Basic BSPTS Methodology (C1)**. Participants in the C2 course must have been certified at the C1 level for at least 12 months and not more than 3 years. In order to participate, a case study must be submitted 2 months prior to the course start date, the application form must be completed and the applicant accepted. Minimum of 6, maximum of 10 students are accepted to the course.

## **INSTRUCTORS**

**Beth Janssen, P.T.**, has been a practicing physical therapist since 1986 when she graduated from the Mayo School of Health Related Sciences in Rochester, MN. She has worked extensively in hospital settings where her practice focused on evaluation and treatment of spinal and TMJ dysfunction, women's health problems, scoliosis rehab, and mentoring of new physical therapists. She has done advanced studies in the McKenzie approach to treating spinal dysfunction, along with Muscle Energy Techniques and Myofascial Release training. She developed a special interest in scoliosis after her son was diagnosed with scoliosis. Beth traveled to Barcelona, Spain in 2003 to study with Dr. Manuel Rigo, developer of the Rigo System Cheneau Brace and one of the founders of SOSORT, and world-renowned expert in the Schroth Method of conservative care of scoliosis. Ms. Janssen has returned to Barcelona multiple times over the last eight years, receiving advanced training. She is one of the first certified Schroth therapists in the United States. Ms. Janssen is the co-founder of Scoliosis Rehab Inc. It is one of the first clinics in the U.S. to specialize in the treatment of Idiopathic Scoliosis, using the Schroth-based method as taught by the Barcelona Scoliosis Physiotherapy School. Scoliosis Rehab Inc. is dedicated to treating adolescents and adults with abnormal spinal curvatures, including scoliosis and increased kyphosis. Scoliosis Rehab Inc. has clinics in Stevens Point, Wisconsin and Phoenix, Arizona.

### **Rebecca Hurst, PT**

Rebecca Hurst earned her Master's degree in Physical Therapy in 1997 from the University of Texas Medical Branch in Galveston, TX. As a Physical Therapist she has over 18 years of experience in various settings including acute care hospitals, rehab management, home health, in – patient rehab and out-patient orthopedics. Her recognition of a need for scoliosis specific treatment in her patients coupled with her family history and personal experience with scoliosis lead her to pursue training in the Schroth method. She received her initial certification through the BSPTS in 2011 and her advanced certification in 2013. She worked at Scoliosis Rehab during the summers of 2013 and 2014 before joining the team full time in October of 2014. She considers it a privilege to work for and alongside Beth Janssen and is also now functioning as a Teaching Assistant in Schroth certification courses for Physical Therapists.

Ms. Janssen belongs to the International Body of Instructors for the BSPTS in the U.S.A. and is a member of SOSORT.

**CEU's**

Continuing Education Units have been applied for through the Wisconsin Physical Therapy Association. The course will encompass 50 hours of continuing education credit.