



March 12th 2012

SST - **Schroth-3 dimensional Scoliosis-Therapie®** according to Katharina Schroth

In the SST- training we will present and review various scoliosis specific theoretical aspects in combination with practical parts of the therapy approach. The course begins with a review of the basic understanding of scoliosis, the possible etiology and then continues to a more sophisticated understanding of the progression. This will continue with a detailed presentation on comprehensive clinical reasoning regarding the conservative management for scoliosis.

Main topics

- Presentation of conservative treatment approach in the scoliosis field
- The Schroth method and its historical progressive evolution
- The actual version of the Schroth method – an upgrade
- Principles of correction and education
- Biomechanical background to the torsional deformation in scoliosis
- ADL – postural changes
- Home-exercise program
- Bracing the important but less developed tool

Summary for the complete course system

1. Basics

Aetiology, biomechanical concept, vicious cycle-concept, progression, postural imbalance, function and structure, braces and surgery.

2. Medical assessment

Visual-manual examination, therapy protocol, X-ray evaluation, scoliometer, clinical tests.

3. Classification Systems

Schroth, King, Rigo, and Lenke.

4. Specific mobilization

Passive: specific manual Schroth techniques, bending, tilt, shift.

5. Breathing therapy

Correct breathing: a specific internal detorsional force to reverse scoliotic features and mobilize restrictive chest dysfunctions.

6. 3D stabilization

Exercises in the treatment of idiopathic scoliosis, from positioning to conscious to automatic self-correction.

7. Activities of daily living

Posture variations, easy approaches during leisure activities, helping to avoid progression and reduce asymmetric loading.

8. Sagittal corrections

Corrections in the sagittal plane, easy to apply and important for spinal stability especially



in the lumbar area

9. Schroth network

Multidisciplinary concept including bracing

The **Schroth-Method**[®] is a physiotherapy method founded by Katharina Schroth in 1921 and developed by her daughter Christa Lehnert-Schroth (PT) and a team of specialized experts working in the Katharina-Schroth-Klinik in Germany and studying scoliosis for decades.

The **Asklepios Katharina-Schroth-Klinik** is a specific conservative rehabilitation-centre for spinal deformities, especially scoliosis. On average the centre hosts 170 patients.

The typical in-patient program is 3 or 4 weeks. The youngest patients are 7 to 8 years old although the majority of the patients are between the ages of 12 to 16 years. Adult and elderly patients with scoliosis and mostly with pain also attend the program. The total number of patients treated conservatively per year is approximately 3500. A team of doctors are prescribing and handling more than 1000 scoliosis braces per year.

SST - Course Program

The complete course includes 3 parts each 3 days in duration. The total number of hours of the three parts is 66 hours. Hunter College is an approved New York State provider of continued education for physical therapists and certificates for continued education are distributed at the end of each three-day part (25 hrs of CEU's for part I & II).

The responsible instructor will be assisted by 1 or 2 experienced Schroth therapists.

In the 2-4 month between the intensive 3 days training sessions the therapist has to implement and practise the learned elements thoroughly into his daily routine.

The instructor will assign responsibilities of participants to help develop a deeper understanding of the Schroth method and its implementation with patients. This is required to participate at the next part. The intention is to install an intensive and serious delving into practical experience.

Part 1

In the first course it is the presentation of an overview regarding theory and practical parts of the approach in order to recognize scoliosis features, assess scoliosis, categorize patients and start to develop a thinking in body blocks and necessary corrections in body planes and biomechanical axes. Corrective breathing provides an essential element for the use of intrinsic forces to improve functional activities in the concavities of the deformed and deviated trunk. Positioning with simple tools is a crucial part in the learning process from a simple to a more complex understanding and also a first step in the adaptation of the Schroth elements into the daily routine of the therapy process.

The practical session starts working among the participants and in a second step with patients with scoliosis. The detection of postural influence into the progressive development of scoliosis leads to the focus on the postural habits of the patients. Therapy requires postural changes. After every Schroth therapy session, it is important to provide a home-exercise program in order to improve patients cooperation and self-dependence.

After part I participants should be able to use the Schroth nomenclature and to teach patients about the postural changes regarding scoliosis. Habitual posture and conscious posture are the main elements at that level. They should be able to work with positioning in lying and to



teach the corrective breathing. Breathing, positioning and conscious posture have to be parts of an easy home-exercise program for their patients.

Evaluation I

Between part I and part II participants had to prepare 3 positioning diagrams for 3 different patients together with the examination protocol. In part II these papers will be collected and marked by the course instructor. Some of these case reports have to be presented and will be discussed at the beginning of Part II.

Part II

In part II the participants learn the scoliosis assessment including physical examination, ATR-measurement with the scoliometer, flexibility tests, photo documentation, trunk relief and habitual posture.

It is important to understand be able to explain the principles of the Schroth classification and positioning before starting with basic corrections including pelvic corrections and assistive shoulder traction. Manual techniques will be used for proprioceptive teaching and to improve functional capability of the patients.

Three dimensional stabilizing exercises help to restore physiological alignment. It is important for the patients to understand and internalize the typical exercise instructions. In the practical parts with patients the main objective is to generate a body of experience assisted by the instructor and his assistances. At the end of part II the participants should be able to assess scoliosis clinically and radiologically. With additional tests and measurements they have to categorize patients according the Schroth classification and assign an appropriate therapy program including a home-exercise program.

Evaluation II

Between part II and part III participants have to prepare a documentation of 2 case reports for 2 different patients. The documentation includes examination protocol, positioning diagram, photos from patients in standing position (front-back-side), with basic corrections in lying, sitting and standing position and the therapy plan: 3 exercises, 1 breathing exercise, 2 mobilizing techniques, 2 home-exercises. In part III these papers will be a prerequisite for the certification process. Selected case reports will have to be presented and discussed.

Part III

Part III includes an in-depth review of the educational process of the Schroth method. Additional classifications like King and Lenke will be discussed. Bracing will be presented by an expert. The Rigo classification can be used as an option for modern bracing principles.

Difficult scoliosis variations and exceptions will be discussed and adaptations of the typical Schroth approach will be presented and discussed. The relationship between scoliosis and lateral listhesis will also be presented.

To understand the surgical treatment, a short overview would be given. During laboratory sessions, the participants work in pairs with the supervision of the instructor and assistant(s).



Certification process

At the completion of Part III, participants are required to pass a written and practical exam in order to earn certification as a Schroth Scoliosis Therapist. Once certified, you are admitted to the Schroth therapist list of the German Asklepios Katharina-Schroth Klinik.

Advanced Schroth training will be provided next. To keep the certification valid participants have to register for a 2-3 day advanced training within 4 years after the certification.

About the instructor

Axel Hennes, is one of the senior PT's of the Asklepios Katharina Schroth clinic. Since 1990 he is in charge with the educational part of the Schroth method. He has mainly influenced the course system in Germany and started in 2008 to offer international Schroth courses in the English language.

In 2010 he was invited to present the Schroth Method at the Hospital for Special Surgery in New York City and Dr. Boachie and Dr. Krasilovsky (Director at Hunter College) inspired him to adapt and to offer the Schroth principles to the US physical therapists.

In 2011/2012 the first course in the US was held at the Hunter College Physical Therapy Program in New York City. Courses in South-Korea and Thailand, Estonia and Latvia foster his experience in teaching the Schroth method around the world.

Ethics of the Schroth method

The certification authorizes for the treatment according to the concept of the Schroth method, **but does not authorize to teach other professionals the method.** In case of non-compliance the certification and the status as a Schroth therapist will be revoked.

Websites and other information used to promote Schroth therapy should be in accordance with the course manual and approved by the Asklepios Katharina Schroth Klinik, or the representative for the international continuing education Axel Hennes.

Thank you for joining us.
Axel Hennes