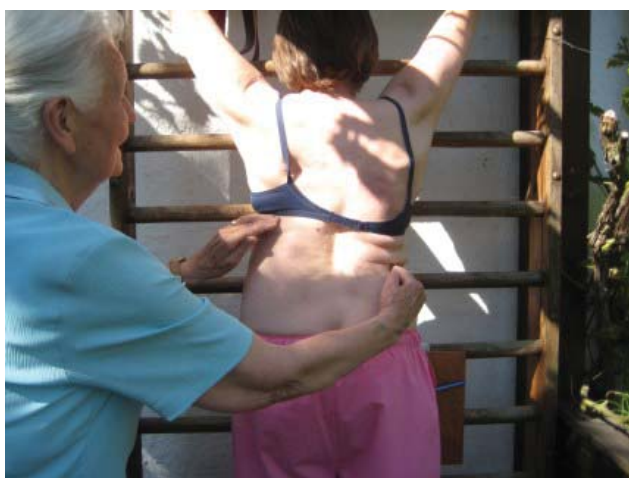


## Case studie "SOPHIE"

In Figure 1 and Figure 2 at right, we can clearly see several abnormal shifts that must be corrected. Sophie's torso has shifted laterally. Her left hip has shifted out to the left, and the rib hump under her right shoulder has dropped. At the same time these two segments are twisted towards the back.

Figure 1 shows the therapist manually stimulating the narrowed trunk sections. The patient must breathe air into these from within, so that they become firm and tough in order effortlessly to carry the sections above them in the correction.



**Fig. 1**

Sophie (not her real name), 59 years old in 2009, has a severe three-curve, right-convex, thoracic scoliosis similar to the drawing (Fig. 113 in the book).

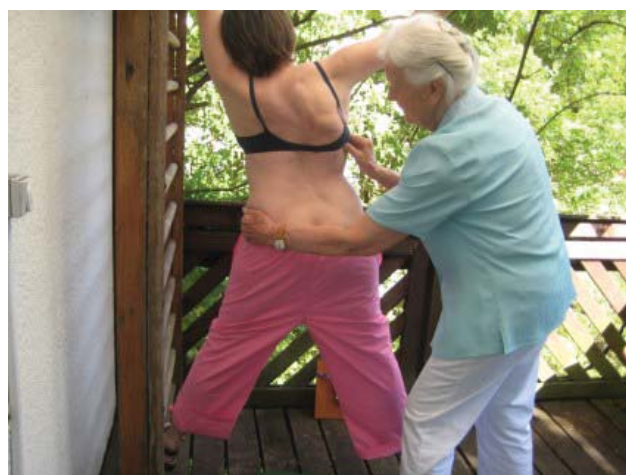


**Fig. 2**

The rib hump must move forward, while the shoulder remains straight.

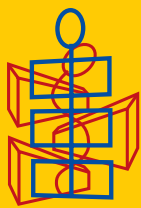
## Overcorrection helps reverse deformities

A central Schroth concept of exercise is to reverse malposture by striving for the opposite of the defective form that the scoliotic body has assumed. The left hip of this patient must be drawn in towards the center of the torso, yet that does not suffice for a "repair." To reverse the defects, Sophie must practice overcorrecting the laterally-shifted sections beyond the midline. This overcorrection can best be achieved by hanging sideways on wall bars (see Figure 3 and Fig. 187 in the book). In comparison to Fig. 1, this wall bar exercise will widen the collapsed ribs below the rib hump, in addition to reversing her faulty pelvic position.



**Fig. 3**

Wall bar exercise.



*Katharina Schroth's*  
*three-dimensional scoliosis treatment*

author Christa Lehnert-Schroth P.T.

It is important that the hands are on the same level, for then the shoulder girdle remains horizontal. Sophie should keep her hands wide apart, which favors breathing in the upper chest. The horizontal bar above is affixed with rubber straps, which allow some elasticity in the exercise. (See also Fig. 300 in the book.)

The right hip is twisted slightly backward by a cushion under the right knee. A diagonal pull with the right hip causes the weak spot under the rib hump to open, along with the left, concave side.

### **Rotational angular breathing (RAB) aids derotation**

The Schroth right-angle breathing (RAB) technique is applied to these sections. This special breathing technique helps from the inside to push the ribs outward like an expanding air cushion. This achieves firmness and solidity for the sections above them. The working trapezius muscle, visible on the left in Figure 4, is pulling the main curve to the left. It begins at the spinous processes of the thoracic vertebrae, and would pull contortingly if the patient did not simultaneously initiate RAB (described in Part B of the book). This rotational breathing returns the vertebrae to their normal, untwisted position and widens and fills the concave side towards the back.



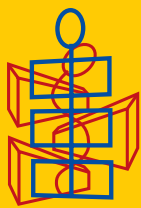
**Fig. 4**

shows a good starting position for correcting faulty body positions: fixed pelvis, bent-knee position, and fixed hand position.

### **Stabilization follows corrective exercise**

Also visible in Figure 5 (next side): Isometric stabilization exercises can be built into this exercise so that the result of the exercise can finally achieve and hold proper form. Here the patient could, for instance, pull the cane backwards, or attempt to "pull it apart" or to press the ends together - always with arms placed wide apart. During such forceful exercises the patient must exhale to avoid compression on the larynx.

In Figure 6 (next side), the hand on the rib-hump side grasps a bar one higher up in order to derotate the shoulder girdle, which must move back on this side although the rib hump itself must simultaneously move forward. (See also Figure 2 above.) This is a countermovement, which must be trained partly with the help of a therapist and partly alone while monitoring oneself between

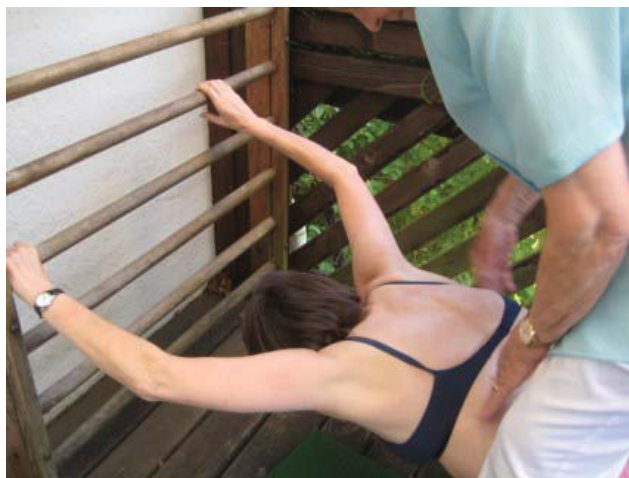


*Katharina Schroth's*  
*three-dimensional scoliosis treatment*

author Christa Lehnert-Schroth P.T.



**Fig. 5**  
Starting position at the wall bars.



**Fig. 6**  
Starting position on the knees, upper-body position horizontal.

two mirrors. Manual coaching by the therapist helps the patient to find the necessary feeling in the body for the desired exercises.

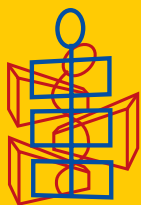
Caution: Here we should add that the hand on the rib hump side must not always grip higher. It depends upon the position of the upper body. If the torso is positioned vertically, gripping higher means cranially, which would move the shoulder girdle out of horizontal. If the upper body is horizontal, gripping higher moves the arm and the shoulder girdle of this side backwards. (See Fig. 84 in the book.)

It is similar with leg and hip position. In Figure 6, Sophie kneels with a cushion (not visible in the photo) under her right knee. This moves her right hip back in relation to the rib hump, which must move forward. (See Fig. 80 in the book.)

When the patient is standing, there must be no cushion under this foot, since it would move the hips out of horizontal. Even while seated, no cushion must be placed under the pelvis on the rib hump side, since it would further compress the narrowed spot under the rib hump.



**Fig. 7**  
Countermovement between right hip to the rear and right rib hump forward



*Katharina Schroth's*  
*three-dimensional scoliosis treatment*

author Christa Lehnert-Schroth P.T.

Figure 8 demonstrates how the body can be moved into a completely different position. The right leg hangs downward, and the weak spot under the rib hump widens. The patient pushes her right hip back with her hand, and thus creates a firm basis for the forward leveraging of the right rib hump. The therapist stabilizes the patient somewhat, to help hold her in position to apply the various rotational breathing movements. (See Part B in the book.)

In Figure 9, the patient fixes her extended right leg, in a plane with the torso, to offer better support. With her hands the therapist widens the narrow spot on the right side to allow air to flow into it. (See also Fig. 107 in the book.)

**Caveat:**

It is very important for the patient or therapist to determine whether particular exercises described on this page, and in the book, are appropriate for the condition of a given patient. The exercises depicted here in Sophie's example are for a three-curve, right-thoracic scoliosis, approximately corresponding to Fig. 113 in the book.

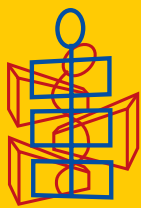
They cannot be adopted without alteration for a four-curve scoliosis, for instance, because in that case other static relationships are at work. See Part B, sections IV and VI of the book, which summarize the physical corrections necessary for three- and four-curve scolioses.



Fig. 8



Fig. 9



## Interview with Sophie

In January of 2009, Christa Lehnert-Schroth asked Sophie why she keeps coming back to Bad Sobernheim for Schroth treatment.

Sophie positively gushed.

"If I had not gotten to know the Schroth method, I would have been dead long ago. I had such terrible back pain that I just barely survived in a body brace. "For six years previously, I did so-called Swedish derotation exercises, but they only made me more and more crooked. I did not know how I should breathe or position my body in bed.

My orthopedist told me I just had to live with it, since nothing about it could be changed. I was in despair, depressed, and tired of my life.

"I am so happy that in 1973 I learned about the Katharina-Schroth-Klinik and was accepted there for treatment. Since my first visit there in February of 1974, I have not had to wear a brace, I have no more sharp back pains, and have been able to run my hat store for 26 years.

Sitting, walking, and most of all, breathing - all are much easier for me now. Before, I slouched into my rib hump and kept getting shorter.

"I come back every year to the Schroth clinic if possible. I learned there how to deal with my body. My quality of life is considerably better. I know how to carry myself, with my more than 100-degree curve. Now it does not matter to me how many degrees my curve is measured at. I walk completely differently.

"From the very beginning of Schroth treatment I experienced a complete rethinking in my head. Everything developed positively, like a miracle. I live well now. I even got taller, so that my thick back is scarcely noticed when I am dressed. I am much stronger and more self-confident, and can breathe again. I know how I need to position myself while asleep. I did not know these things before. "I use two corrective cushions at night, for my left hip and the left shoulder girdle. Even when watching TV, I sit upright and prop my lower arm on the arm of the chair.

"I practice exercising daily at my wall bars. I hang out the curve or practice the Andreakreuz exercise and do other strength training exercises.

"I am so grateful to Frau [Katharina] Schroth and Frau Lehnert and the personnel of the clinic. I was so unhappy that I almost took my own life. Now I am content and full of life.

"It is the same story with many thousands of other people, all of whom are glad that they found out about this clinic. If it did not help, we would not come back. It is hard work. I, for one, spend my vacations at the clinic and have nothing but positive things to say about it."