

## **New Aspects on the Diagnosis and Therapy for the Preservation of Arthritic Joints**

Dr Alex E. Staubli, former head consultant for orthopedics at the Cantonal Hospital in Luzern, Switzerland, has now—upon his retirement a year ago—turned into a start-up businessman. His company made the Private Clinic Sonnmatt in Luzern its home. From here he travels both to the Sports Clinic Hirslanden and the Andreas Clinic in Cham, where, as senior consultant, he makes his knowledge and experience available to patients as well as colleagues. He describes himself an intellectual precision mechanic and not a bone locksmith. His most important message is: total joint replacement is a wonderful thing but only as the last resort within the treatment of comminution (osteoarthritis). At least for people between the ages of 40 and 65, every possible effort must be taken in order to maintain the function of the joints for as long as possible. The joints are the driving units, living structures, incorporated within the balance of the body with a lot of variability, ie, the law of life. The orthopedist, when looking at the locomotor apparatus of the lower extremities (knee and hip joints), needs to know the mechanics of gait (stance phase, swinging phase) very well in order to interpret changes correctly and to initiate the best therapy possible. Normally, the body's weight vertically rests exactly on the middle of the knee joint.

In case of axial malalignment (bowlegs or knock-knees), the weight is deflected to the interior or posterior side of the joint, which leads to one-sided abrasion, damage to the cartilage, and diminution of the joint space. This causes pain and leads to the diagnosis of osteoarthritis. Bowlegs are caused by malformations, lesions of the interior side of the meniscus, or by accidents. Therefore, the goal must be to recognize, at an early stage, whether such a process is occurring in order to intervene correctively. This is done by correcting the axis of the leg in such a manner that the load is redirected to the middle of the knee joint. Such interventions were already carried out successfully in the 19<sup>th</sup> century—admittedly by archaic methods—which is why Dr Alex Staubli refers to evidence-based medicine. Today such interventions are carried out with special plates and screws, which were developed by AO (global scientific consortium of surgeons working on matters of osteosynthesis). Bone remodeling occurs within a period of seven years. People who only stay in bed will develop osteoporosis, people getting plenty of exercise will strengthen their bones. With increasing age, it is important to control one's weight in order not to put too much load on one's joints, and to prevent osteoporosis by plenty of exercise. Dr Staubli uses the case of a female patient as an example to demonstrate the importance of initiating the correct therapy. The 69-year-old woman suffers from poliomyelitis with changes of both legs and a foot. With the help of the surgical correction of the axis of the leg, and orthotic support by a so-called inside-shoe the patient regained stability, which allows her to lead a next-to-normal life. She only needs a walking stick to support her on the contralateral side of the foot operated on.

Lesson learned: The correct therapy at the right time can achieve miracles. As Dr Staubli demonstrated most impressively.

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