

## **New Effective Training and Therapy Concepts: XCO® and Flexi-Bar®**

### **One of the newest trends in the fields of fitness, therapy and rehabilitation**

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The training tool – reminiscent of a classical handheld dumbbell – is functionally based on accelerating and decelerating a shifting mass. Its aluminum tube contains a special granulate filling. The mass is accelerated by rapid oscillating motions, and then is either slowed down in a targeted manner or, as the case may be, intercepted. This form of training – also referred to as reactive training – causes muscles, ligaments and tendons, bones, joints, connective tissue and nerve fibers to be stimulated, or respectively trained, in equal measure. An additional specialty of this tool in comparison to conventional sport training devices is that this tool is not limited to only one- and two-dimensional motion sequences of isolated muscles, but instead calls upon entire muscle regions in three-dimensional and thus natural and free dimensional motion sequences. Training on stationary equipment with predetermined “motion rails” which do not allow for natural, unrestricted motion sequences, are not nearly as effective as functional, three-dimensional training, also known as “functional kinetics”. The Flexi-Bar® also affords a total body training through targeted oscillating movements, which activates muscles while penetrating into the deepest body zones. From a medical point of view the results are quickly noticeable, primarily in reactive muscle training as well as in improvements in coordination. The reason for this is the shifting mass of the XCO®.

The applications of the XCO® are numerous and versatile. It can be used both as a fitness tool for recreational or professional athletes and as a therapeutic device in physiotherapy. My entire team at the Spine Center of Munich at Taufkirchen and the Golf Center in Munich has been trained in the professional uses of both the XCO® and Flexi-Bar® methods, and both treatment methods contribute significantly to our success. The renowned Munich-based spinal specialist Dr. Reinhard Schneiderhan, M.D., who is a close professional associate of mine, also recommends the XCO® and/or Flexi-Bar® method for any orthopedically-related ailments. He also recognizes a tremendous potential for their preventive uses, after having tested both devices in my office over some period of time, and the meantime has also been using them regularly in his own fitness program.

I myself am an enthusiastic runner and have been using the XCO® now for a number of years. I particularly appreciate the fact that, in contrast to conventional running training, the upper body with shoulder girdle and arms, neck, cervical, thoracic and lumbar vertebrae, major abdominal muscles and waist are also included in the workout. Through this total body workout, a balance in demands on the upper and lower body regions is established, which improves the running style. Especially those who work in a mostly seated position stand much to gain by using this exercise to counterbalance motion deficits in the lumbar-vertebrae region. In addition to loosening and strengthening this area, a relaxing effect in the neck, shoulder and chest regions almost automatically follows. The XCO® intensifies these effects noticeably, even after the very first exercise.

Running is enjoying greater and greater popularity. For this reason I would like to offer some general advice for a proper, gentle-on-the-joints running style. A wrong style can quickly reverse the desired positive results into the opposite: in the landing phase, the entire foot should touch the ground flatly not far from the body's center of gravity axis, with the knee slightly bent. Only then can the arch of the foot, the entire foot, the lower leg and knee, aided by the running shoe and the leg musculature, dampen the forces and impact and thus fulfill their intended function. It is my opinion that heel or toe landings, even with a full roll-off of the foot, cannot be recommended. However, when vertebral disc problems are indicated, I recommend walking, which is more forgiving on the joints.

Incidentally, figure conscious individuals can use the XCO® to intensify any training geared towards calorie burning and thus increase calorie expenditure by up to 33%. My suggestion: after endurance training, add an additional exercise module with the Flexi-

Bar®. This will enable you to target improvement of muscle strength most effectively, which will only improve the results on your caloric ledger.

The XCO® can be used indoors as well. Even a daily routine of only 15 minutes in front of the TV will help to relieve stress and overcome strains and blockages. An interesting and very lively variation – in physiotherapy clinics as well as at home – is training with XCO® on a trampoline. This combination promotes and also requires a good physical condition, while being very gentle on the joints.

Also in the fields of therapy and rehabilitation we find a good number of applications. The following are a list of key medical fields, in which I use the XCO® in both our Spine Center and Munich Golf Clinic:

- correction of muscular imbalances and weak/impaired posture
- cardiovascular fitness
- improvement and maintenance of connective tissue structures, e.g. cartilage, muscles, vertebral discs and menisci
- establishing functional stimuli during the healing process
- post-surgical treatment: spine, disc, shoulder, knee and hip surgery
- treatment for osteoarthritis and osteoporosis
- degenerative and chronic ailments of the spine
- foot muscles, leg-structure training, e.g., co-contraction exercises of the anterior cruciate ligament
- aftercare for rotator cup rupture, shoulder luxations
- pelvic floor- and rehabilitative gymnastics
- joint stabilizing exercises, e.g., with prolapsed disc
- overall tension in neck, shoulder, back
- pain therapy, e.g., through functional physiological loads
- coordination training, physical + mental -- activation and interplay of both sides of the brain
- torso rotation training and training of rotation-stabilizing muscles
- body styling and sensorimotor training
- rhythm and balancing exercises, walking and postural training
- preventive and compensatory exercises
- imitational training, e.g., golfing, tennis
- whimsical day-to-day training
- training of deep muscles that are not susceptible to generalized contractions
- explosive and strength-speed training can be improved for any position, whether towards a sports-specific activity or for daily fitness.

Training with the XCO® and the Flexi-Bar® is significantly more effective and also more challenging than conventional physiotherapeutic training. Success will be achieved more quickly, more pronouncedly, and in addition to the physical benefits, mental improvements stand to be gained as well.