

Technical Development of the T-BOW®



Smart and Robust Design:

The T-BOW® is a multifunctional bow made of synthetic fiber -high-density polyethylene- (the most resistant since 2005) or natural wood (the original since 1995), developed over more than 10 years at the University of Zurich (Switzerland) , and a finalist for the ISPO Brand New Award 2006 in Germany.

Dimensions 70x50x17 cm., weighing 3.2 kg, with non-slip natural rubber feet, useful on both sides, whose concave side has a granule to prevent slipping and a very narrow surface on the short sides prepared for precise support and bilateral foot control, and whose convex side, with a slightly more accentuated curvature than the typical physiological lumbar, is covered with an antibacterial and fungicidal mat, very sensitive and comfortable to body contact. Three holes on each long side provide convenient attachment for all types of rubbers and bands. Very manageable with a practical grip for transport and useful in a small space. It has some sockets in the concave and convex part that allow stacking more than 40 T-BOW® in a practical, stable and hygienic way.

Useful on both sides, perfectly balanced and highly elastic, the T-BOW® resists static loads of more than 400 kg and dynamic loads of more than 350 kg, both in its stable and unstable position, immediately recovering its functionality. It is treated with ultraviolet stabilizers to maintain its mechanical properties and guarantee a long useful life.

It can be easily kept hygienic.



Multifunctional:

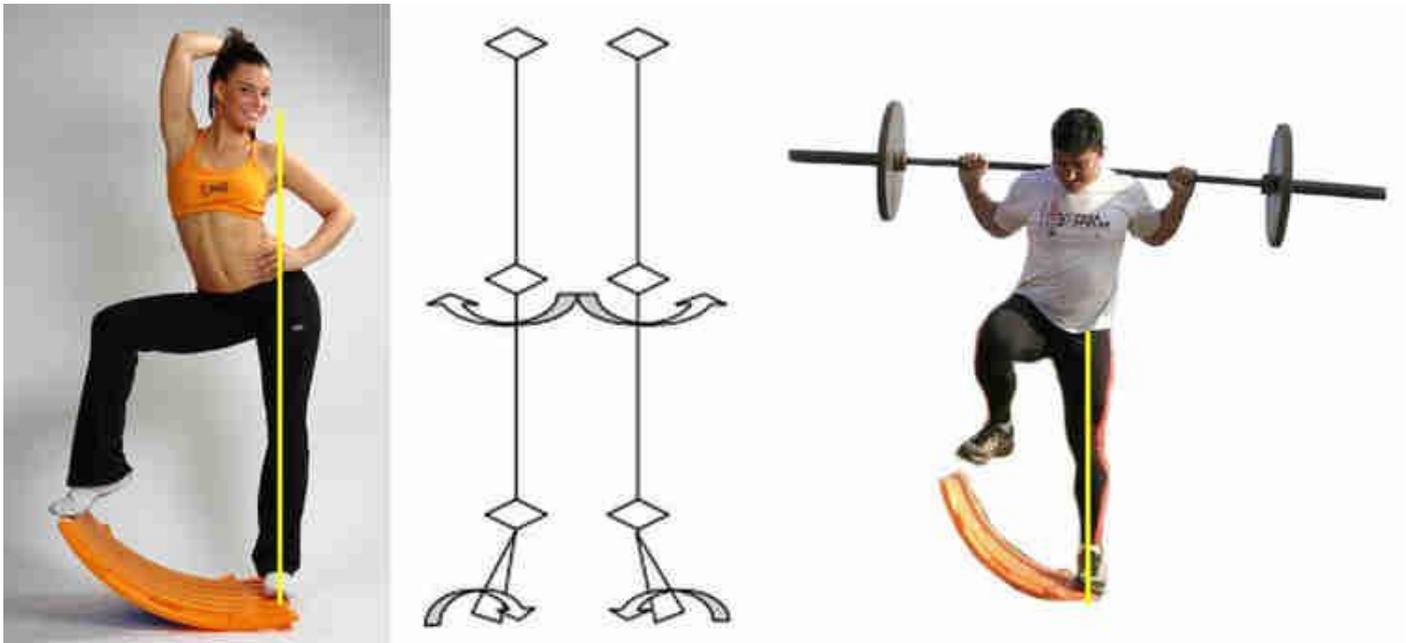
The possibility of the T-BOW® to train in its concave-unstable and convex-stable position, as well as to be combined with other mobile materials (T-band, rubber bands, weighted balls, dumbbells, bars, discs, kettlebells, balls, sticks, ...) and fitness machines, allows you to design an endless repertoire of differential exercises for all coordination and balance factors (motor control, spatial implementation and temporary adaptation), with special attention to the variety of supports on concave and convex surfaces, conditional (strength-speed, resistance, flexibility-mobility and relaxation), with special attention to trunk toning and spinal column mobility thanks to its physiological curvature, and cognitive (space-time perceptions, rhythm, and those related to decision-making), thus achieving an extraordinary versatility of application to group sessions and personalized training in the fields of health-fitness, Yoga, physiotherapy, movement training-education, postural correction techniques such as Pilates, recreation and wellness.

Both in its stable and unstable position, it enables effective exercises from the very simple, applicable to many people, to the most complex for the elite athletes.



Special Options of Static-Dynamic Balance (concave unstable position):

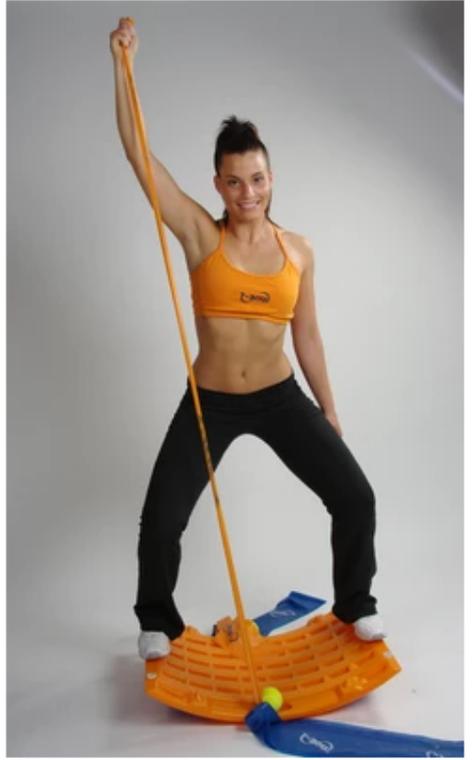
Static-dynamic balances with very reactive adjustments, such as swings (lateral, frontal and mixed) in foot, hand, seated and triple-quadruple support are a differentiating source to optimize motor, spatial and temporal control coordination capacities. The elastic and inertial property of the T-BOW® provoke fine movements causing very fast and reactive changes in any situation of static-dynamic balance hyperstimulating the proprioceptive awareness, the perception of the differential tone and the control of the situation-displacement of the center of gravity optimizing the overall balance. Its narrow edges force to rebalance the support with both sides of the foot (bilateral motor control), forcing a synchronized screwing of the longitudinal axis of the leg (intermuscular timing), hyperstimulating the segmental independence of each leg at the level of intra-intersegmental tonic differentiation, perception of trajectories and speeds, and rhythmic control optimizing the segmental and intersegmental balance between both legs.



Extraordinarily precise Postural and Coordinative adjustment

With a perfectly balanced single unbalanced axis, low weight and high elasticity, it is reactive to the slightest movement and changes its inertia with very small loads, thus optimizing very fine postural and coordination adjustment.

Swings are also used therapeutically for eccentric hamstring muscle training, decreasing foot hyperextension, preventing Achilles tendon inflammation, and stabilizing the joints of the foot, ankle, knee, shoulder, and spine. When combined with the T-Band, coordinative sequences are built to extraordinarily prioritize static-dynamic relaxation (segmental and global) and resistance involving parts of the entire body. Its arched design and the possibility of carrying out the different swings around a single axis allow a gradation of imbalances from very simple levels, providing security to the beginner practitioner. Balances with foot supports, apart from being done with gym shoes or barefoot, are also possible with socks that have good grip, and in the case of the natural wood T-BOW® with conventional socks.





Special Support options and Strength-Mobility of Trunk Options (stable convex position):

The multiple foot supports to go up-down-rotate-jump-move- are extended with supports and jumps on a convex inclined plane and at different heights on an elastic surface that is healthy for the joints and applicable for daily and sports actions. The hand, forearm and knee supports are comfortable and sensitive, allowing multiple flexi-extension exercises and postures. The hip supports, being raised to different heights, make the positions for stretching and mobility easier, especially for those who are not very flexible in typical Yoga postures.

Its arched design (curvature a little more accentuated than the typical lumbar lordosis) favors an anatomical-physiological adaptation to the typical curvatures of the spine and great stability and reactivity, enhancing, with degrees of amplitude greater than a flat base, its mobility in extension, flexion and rotation, as well as the strengthening of the front, rear (with priority of lower or upper back) and lateral muscles of the trunk selectively according to the position of the hip on the T-BOW® and the mobilization of the trunk, hips or legs. By associating the T-Band, the smallest deep and intervertebral muscles of the back can be affected asymmetrically, especially at the level of the dorsal kyphosis, and cervical muscle balance to prevent-rehabilitate neck pain.



T-Band as the ideal complement:

The T-Band is a single elastic band and a double elastic band forming a loop (3 tension options), attached to a ball that allows a quick fixation in any of the 6 lateral holes of the T-BOW® and avoids the band's rubbing, extending its useful life. With the T-Band, different levels of static and dynamic tension are created, of increasing and decreasing load, more and less elastic, enriched with the possibility of using the single, double or both bands simultaneously, as well as with the combinations of passing the bands through the side holes, extraordinarily optimizing the creation of countless unilateral and bilateral, symmetrical and asymmetrical, toning, posture and coordination exercises, in the stable and unstable positions of the T-BOW®. The T-Bands are made of latex, have a soft texture and are practically adaptable to the body.



Doble T-BOW® as an Advanced Resource :

There are two alternatives when placing one on top of the other (contact between its concave or convex parts) to achieve a dynamic convex surface or a broader and multi-directional rolling situation. In both cases, the use of the T-Bands enriches the possibilities of optimizing coordination skills, and unilateral and bilateral toning of the arms. The dynamic convex surface option (concave sides in contact) provides very special rocking situations for back mobilization and postural exercises in support of feet, hands, arms, knees, hip-trunk and their combination.

