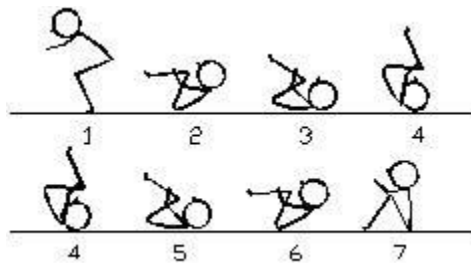


Rolling like a Ball on T-BOW®

Technical Analysis

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Previous: SWING ON THE BACK (“come and go on the back”)
 (adapted from L. Abaurrea-Alfaro, 2000, *Initiation to Artistic Gymnastics*)

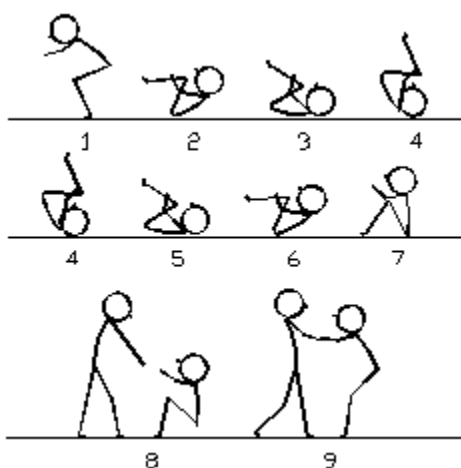


- Starting position: sitting in the center of the mat and in a longitudinal direction with the legs bent and together, the arms embracing them at the height of the knees (1-2).
- Throw yourself back rolling on your back (2-3-4) and return to the starting position, without losing the starting position (5-6-7).
- Common exercise for flips forward and back.

- **OBSERVATIONS**

- Rolling into a ball is a fundamental starting exercise for learning the forward and backward transverse roll on the well-rounded back.
- The performance of this exercise is correct when the body does not open, or does not move sideways out of the vertical plane to the ground.
- To do this, it is necessary to keep your head down with your chin on your chest and holding your knees with your hands.
- This exercise allows group work by placing the students next to each other.

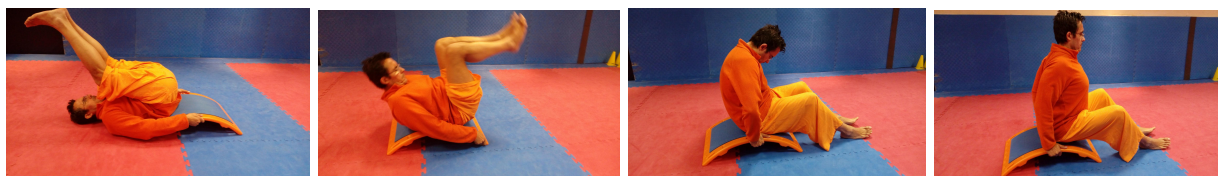
- **RISE FORWARD**



- It is a good idea to practice moving from a squatting position to sitting on the floor, noting that the action itself involves moving backwards.
- It is important to avoid lying on your back in the previous action.
- Once seated on the floor, it is convenient to take the knees to rediscover the sensations of the swing on the back.
- Every time you return from the "come and go" you have to throw your arms forward in search of the starting position.
- The help of the partner is of a relative necessity depending on the more or less correct execution of the exercise.
- Whenever there is help, it should be indicated that it is the person who swings who must look for the helper and never the other way around.

ROLLING LIKE A BALL ON T-BOW®

(created by Xavier García-Navarro, Ganesh School, 2009)



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- The Rolling like a ball on the T-BOW® in a stable position is an adaptation of the classic “Swing on the Back” in which the “swing” develops almost entirely on the convexity of the T-BOW® and a small part continues in the ground, with the possibility of holding on or not to the sides of the bow.
- From an initial seated position in the T-BOW®, head forward with the chin close to the chest and holding on with the hands on the sides of the bow, the backwards turn begins, upon reaching the declined part of the bow (downhill) the body acquires greater turning speed, and then the upper part of the back must contact the ground followed by the neck-head, with the body folded and legs extended backwards, to start the forward turn passing through the inclined part (sloping, which slows down the impulse) and reach the starting position to restart the cycle. In both the final phase of the backward flip and the forward flip, various static or dynamic continuation postures can be adopted. Likewise, the turning phase allows variabilities.
- A breathing option can be: inspire in the sitting position, maintain apnea in the backward turn (“embracing” to stabilize trunk-hip), exhale at the end of the backward turn, inspire and apnea during the forward turn and exhale in the initial position, to restart the cycle. It is essential to vary the ways of breathing to enrich movement optimization.



- From the perspective of YOGA, it is a spinal preparation for the practice of asanas, it dynamically mobilizes the entire spinal column, facilitating spinal unlocking, it stabilizes the “middle zone” or “core”, and it is a balance that provides well-being by balancing the emotional-volitional system.
- From the perspective of movement education, the Rolling like a Ball on the T-BOW® is a variant of the "Swing on the back", one of the basic movement actions of general dynamic coordination.
- **DIFFERENTIAL ASPECTS**
 - The T-BOW® provides an inclined plane that, on the one hand, facilitates turning and, on the other hand, increases the perception of rolling on the back.
 - The perception of turns is a fundamental starting point for all backwards acrobatics.
 - Turning on the convexity of the T-BOW® with a well-rounded back (convexity to convexity) reduces the contact surface of the back (compared to performing on a flat floor), increasing the tactile sensitivity of the contact of each vertebra with the arch and the perception of rolling on the back.
 - The contact of the back with the T-BOW® mat is pleasant enough, but very reactive providing quick tactile feedback to accurately maintain movement adjustments.
 - Turning with the back well rounded on the convexity of the T-BOW® "massages" the spine with sequences of reduced contact points, a fact that facilitates its static-dynamic relaxation.



- If a Yoga mat is placed on flat hard ground, the contrast of the tactile sensitivity of the back at the arch-ground transition (ie T-BOW® mat - Yoga mat) is minimal. Here the kinesthetic-postural contrast of the speed change is more significant.
- Being able to grip with the hands on the sides of the T-BOW® allows to control lateral imbalances so that the body does not move to the sides and thus achieve better control of the dynamic posture. Also, it allows to brake or propel the body during the flip, being of special help during the ascent phase in beginners.
- The convexity of the T-BOW® can speed up the turning of the body (down phase or back flip) or slow it down (up phase or forward flip). The game of accelerating and decelerating the rotation of the body is fundamentally controlled with the flexion-extension of the trunk and legs (set of counterweights and radius of the system) and with the control of the grip of the hands on the sides.
- The bow of the T-BOW® allows you to play with different hip heights in the starting position. This is essential to adjust the back roll to the length of the back and to make fluid contact with the upper part of the back (posterior shoulder girdle) when it reaches the ground.
- The convexity of the T-BOW® arch (a little more than the typical lumbar physiological curvature and very stable and reactive) allows greater amplitudes of dynamic mobilization of the spine in flexion-extension, compared to those performed on flat ground. On the other hand, it makes it easier for the lumbar spine to remain physiologically well balanced during the forward turn (uphill) and that a possible extension of the legs at high speed does not cause a sudden and harmful arching at the lumbar level.

- With these successive swings, a special feeling of well-being is achieved, by being able to turn on a single well-balanced axis of rotation that provides stable vestibular discrimination (similar to the rocking of a baby held by its mother) and a tactile-kinesthetic differentiation in the spine.

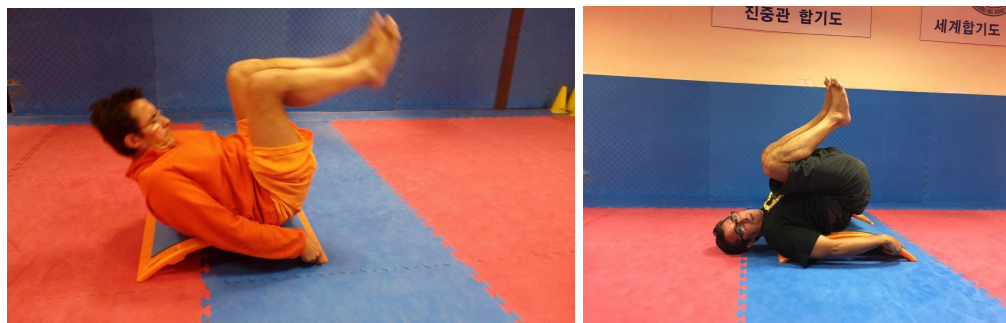


- **SECURITY**

- a) During the arc-ground transition when turning backwards (downhill, when you pick up more speed) you must avoid first contacting the neck-head on the ground and impacting abruptly. To do this, the first executions must be slow and controlled turns with the lateral grips, to precisely measure the arrival on the ground with the upper part of the back and the smooth continuation of the neck-head support, thus adjusting this transition arch-ground with fluidity and secure support.
- b) Avoid lateral imbalances during the forward and backward flip (primarily), using the lateral grips of the T-BOW® until noticing a great control of the flip, without moving to the sides and without leaving the vertical plane of the ground.

- **PROPOSALS FOR MOVEMENT OPTIMIZATION**

- Vary the static posture at the start of the swing (or end of the forward flip phase) and the static posture at the end of the backward flip phase; as well as turning these postures into dynamic situations (eg a jump at the end of the forward roll or a back tumble at the end of the back roll).
- A methodological alternative to control the forward and backward flipping speed can be varying the grip time of the hands on the sides of the T-BOW® (during the entire flipping phase, only in certain phases, without grip) and changing the bending amplitudes (body more/less open), that is, the flexo-extension between the trunk and legs.
- Alternate executions of the "Swing on the Back" on flat ground with executions of the "Swing on the T-BOW®", to create situations of perceptive contrast of rolling on the back.
- Change every 1-2 repetitions, with little pause time, the amplitudes of body bending and the forward and backward turning speeds using the grips on the side of the T-BOW® (optimization of tactile-kinesthetic and vestibular discrimination).
- From on top of the T-BOW®, in a "curled up" posture (arms attached to the knees), start a small rocking back and forth, to continue with others of increasing amplitude (may require the help of a partner at shoulders), and then with others of less and less amplitude. Repeat the cycle several times (very fine optimization of tactile-kinesthetic and vestibular discrimination).



- Divide the seesaw into subtasks and create Rhythm optimizations, such as variability, discrimination, adaptation, and rhythmic sense.
- Create situations of optimization of static-dynamic relaxation during turning and in final situations of turning, interacting the capacities of perception and tonic control (global and segmental).
- Interact different ways of breathing during the development of the Seesaw with coordination, rhythmic and relaxation variations.
- Converting the Seesaw on the T-BOW® (general dynamic coordination skill) into a special dynamic coordination skill, performing it with a mobile (e.g. with a ball, spike, hoop or rope) that is kept in contact with the body, is mobilizes, throws-hits and/or receives.
- Create optimization situations by interacting cognitive, coordinative, conditional, socio-affective, emotional-volitional, expressive-creative and mental priorities.



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