

Men's Gymnastics

Drills for Saltos

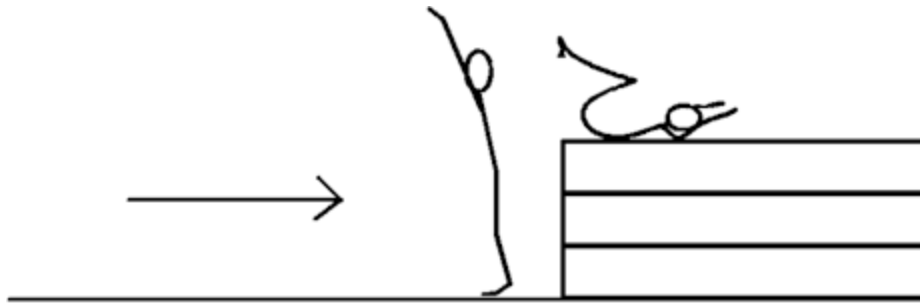
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Drills for the double back and double front saltos: safety concerns for the 1/4 salto landings.

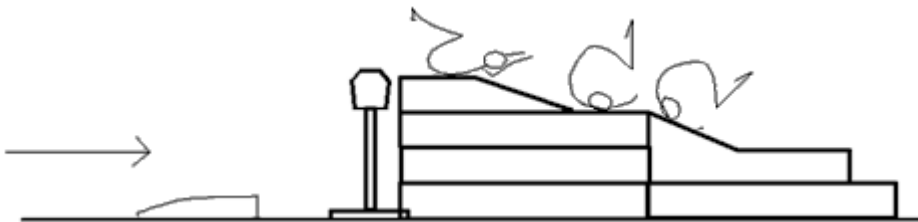
Multiple front and back saltos have become commonplace in today's routines and are performed on every event. The performance of these skills is no longer reserved only for the elite level experienced gymnast. In fact, it is not unusual to find level 8 gymnasts working these skills. Various methods of training multiple saltos have been utilized including the use of spotting, pits, and belts. Regardless of the environment in which the actual skills are performed, the mastery of various progressive lead-up drills is necessary for their safe execution. One such drill involves the performance of a one and a quarter rotation, in the case of the backward double, or a one and one quarter rotation and one and three quarters rotation, in the case of the forward double, onto a raised mat surface. These drills give the gymnast the feeling of the multiple rotation of the skill in a relatively safe environment. However, if the equipment and focus of these drills are not applied correctly, serious injury can occur.

Typically, a gymnast will begin by performing a single salto to the feet onto a stack of mats considerably higher than that of the take-off surface to encourage height in her tumbling. Once this task has been achieved/ the next step is to continue the rotation to land on her back on the stacked mats. As the gymnast becomes more and more proficient in her tumbling skills and begins to achieve greater height in her salto, more rotation can occur. The higher the gymnast/s center of mass is from the landing surface, the more rotation can be achieved prior to mat contact. This can present a safety concern if the drill is not adapted to the gymnast's new level of proficiency. Injury may occur if sufficient rotation is achieved to cause the gymnast to land on the neck or head. Although a higher level gymnast may have sufficient awareness to avoid this situation, an inexperienced gymnast may be unable to recognize the error in rotation until it is too late. Therefore, it is necessary to adapt the equipment setup to reduce the chance of this situation occurring and to maintain a consistent focus of information and correction to the gymnast.

There are two methods to improve the safety of these drills. Most important is to raise the height of the landing surface to accommodate the increased height of the gymnast's tumbling. This will decrease the "drop time" and consequently reduce the chances of overrotating the skill to a dangerous position.



The second important modification that should be incorporated is the use of a decline mat set up, where a slope is created with the mats to encourage continued rotation upon landing. In this way, not only is the skill more approximating the final double salto, but the chance of injury occurring even in the event of landing on the neck or head is reduced.



Rotation that is allowed to continue during impact will reduce the time of the application of impact forces on any one body part, thus reducing the chance of injury. If a landing occurs on the neck or head on a level stack of mats, the impact forces must be dissipated by the mat and the body of the gymnast. By rolling, the forces are spread over a larger area, thus reducing pressure.

The use of one and a quarter and one and three quarter rotating drills onto stacked mats is a common method for teaching multiple back and front saltos. These drills encourage the gymnast to achieve maximum height in preparation for performing the final skill, as well as closely simulate the sensation of multiple rotations. However, it is necessary for the coach to be aware of the possibility of injury arising from overrotation of these skills as the gymnast's abilities improve. Simple modifications including raising the height and applying a declining slope to the landing mats will promote safe execution of these drills.

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