

SPLIT

FLEXIBILITY

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Split flexibility, or the ability to achieve a fore and rear leg position of 180 degrees or more, is a highly prized skill. Below I would like to describe two methods of stretching and strengthening that may help athletes achieve and maintain their splits more rapidly and with greater time efficiency. It has been noted in the past that athletes often perform "stretching" activities for relatively long periods and that stretching consumes a significant amount of training and conditioning time (Sands & McNeal, 2000). In spite of the relatively large amount of conditioning time devoted to stretching, it appears that many athletes reach a point of diminishing- or no- returns on their stretching time investment in terms of increasing their range of motion in the splits. I believe the stagnation in increasing range of motion is due to two reasons: (1) lack of variety in stretching activities and (2) failure to enhance strength in the extreme ranges of motion.

Below, in Figures 1, 2, and 3, I would like to propose two stretching methods that have been shown to enhance split flexibility. The first is based on U.S.A. Gymnastics National Staff efforts to enhance the "squareness" of split flexibility among National Team Gymnasts. The second is based on research on the use of Therband in achieving enhanced performance of the split leap.

Figure 1 shows the use of two mats or blocks to support the athlete while he/she lowers to a split position. The blocks or mats allow the athlete to ensure a "square" pelvis position as he/she lowers toward the split. The athlete should begin with his/her weight on the heel of the forward leg and the knee of the backward leg. The pelvis should be maintained in a position perpendicular to the forward/backward line of the legs in the split. The athlete then lowers slowly, supporting some weight with his/her hands, to the lowest position he/she can attain with a properly aligned pelvis.

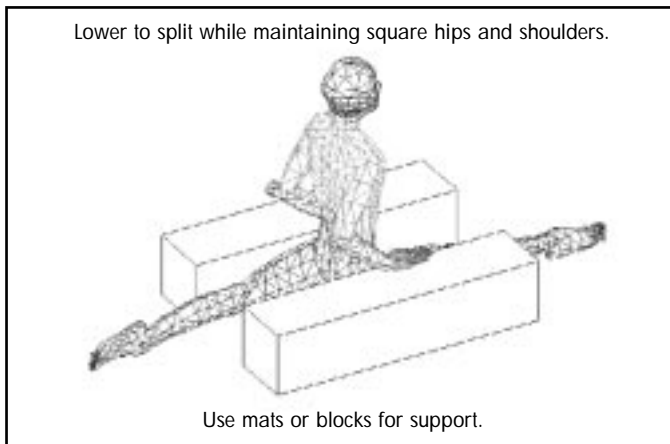


Figure 1. Split Position using Blocks. Note that the athlete lowers only after aligning pelvis.

Figure 2 shows a modification of the exercise in Figure 1 and emphasizes the hip extension of the rear leg. The athlete may want to perform this variation with the shin of the rear leg against a wall so that the athlete can readily determine if her rear leg has shifted out of alignment.

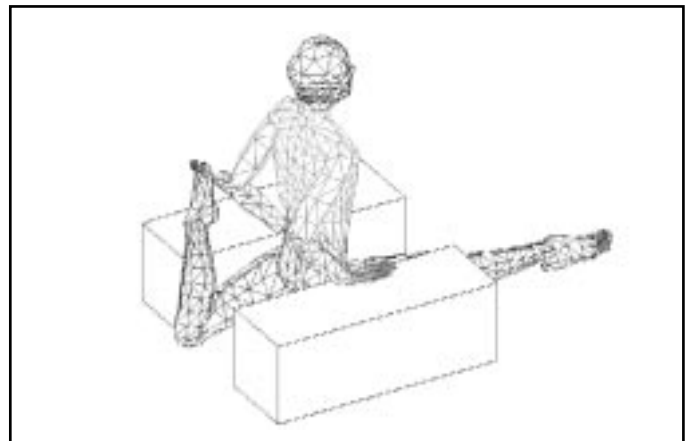


Figure 2. Split Position using Blocks and Shin Alignment.

Figure 3 shows the application of Theraband elastic strips to flexibility exercises designed to enhance split flexibility. The Theraband strips should be black in color or they should be among the stiffest of the elastic material you can obtain. Surgical tubing also works, but again the tubing needs to be quite stiff. The strips are cut in sections approximately 5'6" in length (approximately 170cm). The ends are then tied in loops so that the strips can be slipped over the feet and ankles of the athlete. The loops need to be small so that the strips do not slide toward the knee of during kicks. As the athlete progresses, the strips can be shortened slightly in order to increase the training demand.

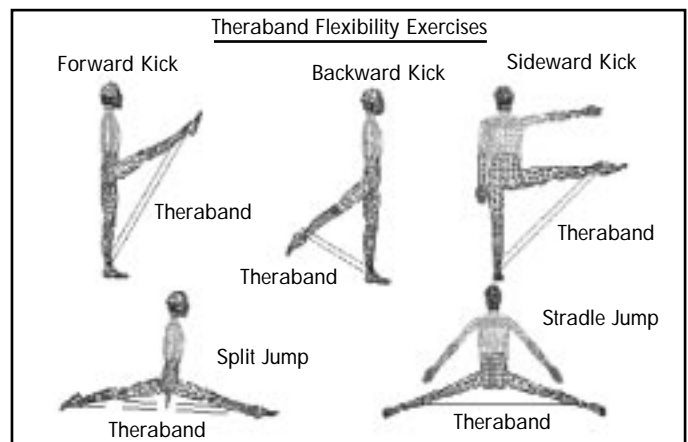


Figure 3. Theraband Exercises.

STRETCHING PROGRAM

All of these exercises should be performed using 3 sets of 5 repetitions at the start. The number of sets can be increased to 4, 5, and 6 with each increase occurring after 1 to 2 weeks of training. In the splits using blocks above (Figures 1 and 2). The athlete begins in the split position and lowers to his/her best/lowest position and holds this position for 30 seconds. Then the athlete rises and rests for 10 to 30 seconds and lowers and repeats. The athlete should do one set on each leg and then switch legs. Athletes can and should perform these exercises several times each day.

In the Theraband exercises, the athlete should begin with 3 sets of 5 kicks per position/jump. The number of kicks is increased progressively to a maximum of 15 kicks per set, and a maximum of 4 to 6 sets. The athlete should be very careful to ensure that all kicks are performed with correct upper body and pelvis posture. The athlete should emphasize this posture over and above his/her ability to kick high. Most athletes are unaccustomed to this type of load/resistance in their extreme positions. The exercises are surprisingly stressful for the uninitiated, therefore one should use caution and progress slowly. Previous research demonstrated marked improvement using this exercise method daily, once per day.

Reference List

1. Sands, W. A., & McNeal, J. R. (2000). Enhancing flexibility in gymnastics. *Technique*, 20(May), 6-9.