



GLUTES & HAMSTRING CONDITIONING

Running, pivoting and jumping employ a full range of muscles in the feet, legs and trunk with concentration on 5 areas:

1. Abdominals - Core must be strong, however the obliques work the hardest in our jumping
2. Calf muscles - these muscles are used intensively to get vertical height
3. Hamstrings - they function to extend the hip joint and flex the knee joint
4. Quadricep - these are used to improve jumping capacity
5. Gluteus muscles - these are responsible for a large portion of upward thrust necessary in the vertical jump, its primary function is hip extension

It is much easier to extend your knee when the hip is extended rather than with the hip flexed which is the necessary order for extension in a tuck. Weak glutes cause the psoas muscle to be overworked as a stabilizer and this action creates lots of problems, the main one being compression of lumbar vertebrae or back pain. Weak glutes cause hamstrings and quads to overcompensate which leads to bad alignment of femur, knee and ankle which can cause knee problems, tight IT bands, shin splints, and achilles tendonitis. The hamstrings are largely responsible for maintaining the integrity of the knee joint. These muscles have a high proportion of type 2 fibers. They are involved with exercise of higher intensity and force production. Since this muscle is specialized for explosion this would mean more of a 1 to 1 ratio of quads to hamstring strength for our sport. So we need to condition our glutes and hamstrings along with abdominals, calf muscles and quadriceps. Add this to the Tuck Conditioning for an intense workout for your tumbling and jumping ability.

CONDITIONING

1. Fire Hydrants (On hands and knees, 1 leg up knee bent to side) 20 each side
2. Bent leg kicks - 30
3. Rubber band bent leg kicks
4. Lie over a bed or elevated surface to your waist. Do extensions lifting arms, head and chest up to horizontal.
5. Lie on side, bring top leg forward to floor and back up
6. Hamstring push ups w/partner
7. Stand 1 leg on surface about 12-18 inches high sideways, lift other leg up, do a calf raise, squat with bottom back, straighten step back down
8. Hamstring curls w/partner pushing bottom part of leg down while you press up
9. Bridge lifts with knees bent, heels touching floor, lift bottom up until straight line
10. Bridge lifts in IT band stretch from shoulder to knee, 1 leg bent w/ankle on opposite knee
11. Candlestick rolls up to 1 leg
12. Side lunges
13. Wall squat 1 leg extended - Hold for 15 seconds

14. Swiss ball hamstring pulls lie on back, heels on ball, lift bottom off floor until straight line from shoulders to ball, Then by bending knee pull ball toward you and back out, Also do this with one leg off ball.
15. Dead lifts - good morning bend with straight legs, flat back and lift weight up and down. you may do this on one leg by levering up and down with weight.
16. Place feet on elevated surface 18 inches lift hips until body is straight
17. Prone hold - bent leg lifts
18. Lunges with weights
19. Find a step to stand on, put weights on ankle, bend leg to 90 degrees, hold 1-2 seconds, lower back to start switch legs.

CALF EXERCISES

1. Calf raises (toes in, out and parallel, stand on your toes)
2. 1 leg calf raises
3. Calf raise with press on tops of thighs to resist the raise
4. Sit in pike, flex and extend feet
5. Donkey calf raise (heel off edge of block, put free ankle behind other ankle and reach down to toes, raise heels)

QUADS

1. Wall sits
2. Squats - thighs should be parallel to floor for a complete squat push butt back, knees over toes, add weight
3. Lunges - stepping or stationary, elevate front foot for a split squat, elevate rear foot for a bulgarian split squat
4. Step ups forward onto box with free leg coming up to a high lib
5. Sprinting
6. Jump squats

OBLIQUES

1. Around the world crunches
2. Hold medicine ball stand straight with legs shoulder width apart. Ball is in front at waist height, twist to right bringing ball up the squat floor to the left, switch sides
3. Side Crunches on ball with in crease between wall and floor
4. Hold on to wall one foot in front of the other with back leg lift from hip and kick out sideways
5. Use resistance band, on extended leg, other foot is resting against thigh, twist body change sides
6. Side V ups
7. Superman lifts - arms by ears twist as you lift