Side Lying Leg Lifts (Hip Abduction and Extension)

Strengthening Gluteus Maximus and Gluteus Medius is very important for preventing knee injuries. These muscles help stabilize the pelvis and are important for proper walking and running. If they are weak, the pelvis is not stable which sets up a weak base for the whole leg. Weakness of these muscles often causes problems down the chain resulting in the knee injuries. This exercise focuses on strengthening Gluteus Medius and Glutes Maximus in side lying position which puts less pressure on the knee.

**Instructions:** In sidelying position with or without a resistance band lift your top leg up and kick backwards. Make sure to keep your back straight and stomach tight.

Work up to 15 to 20 repetitions keeping good form.

Prone Hip Extension

This is another good exercise to strengthen the Gluteus Maximus and Gluteus Medius muscles. Though it primarily targets the Gluteus Maximus. These muscles are often weak for a lot of runners and contribute a lot of running knee injuries. Strong gluteus maximus is essential for pushing off while walking and running.

**Instructions:** Lying on your stomach with hips off the edge of a table or bed, kick your leg straight up towards the ceiling and out. The other foot stays on the ground.

Work up to 15 to 20 repetitions keeping good form.
Bridging With Hip Abduction

This exercise helps strengthen the core and glutes. Adding the resistance band helps fire the Gluteus Medius which is often weak in runners with knee injuries. This is also a good exercise to strengthen the core muscles and pelvic muscles.

Instructions: Lying on your back with your knees bent. Use resistance band around your knees. Tighten your stomach and squeeze your glutes (butt muscles) before you lift your bottom off the bed. Pull your knees apart against the resistance of the band.

Work up to 10 repetitions, holding each for 30 seconds while keeping good form.

Single Leg Bridging

This is a more advanced exercise to strengthen the core, pelvis, and hip muscles. Make sure you can do the double leg bridge shown above before attempting the single leg bridge exercise. This is a great exercise to build a strong base and prevent injuries for runners. You need a lot of core, hip and leg strength to do this exercise properly.

Instructions: Tighten your stomach and squeeze your glutes (butt muscles) before you lift your bottom off the bed. Lift on leg up while keeping the pelvis leveled. Squeeze the glutes and make those abs hard...

Work up to 10 repetitions, holding each for 30 seconds while keeping good form.
Bridging On Exercise Ball With Legs Straight.

This is a great way to strengthen the hip and core muscles. Core muscles are another important piece of the puzzle most people neglect when recovering from a knee injury. "The extensions cannot function properly unless the base is strong...so very important to strengthen the core"

**Instructions:** Place your feet on the ball and lift your pelvis up without arching the low back.

Remember to really tighten up the gluteal muscles and abdominals when doing this exercise.

Work up to 5 repetitions, holding each for 60 seconds while keeping good form.