

# Closed-Chain Exercises

## What is a Closed-Chain Exercise?

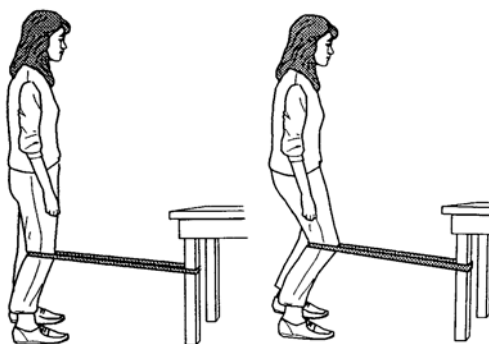
A closed-chain exercise is a strengthening activity done with your arm or leg pressed against an object that does not move. Your arms or legs then push to move your body against the resistance. Your body is used as the weight or force to be controlled. An example would be balancing on one leg and then bending and straightening that leg. Exercising the knee like this makes joints and muscles above and below it also work.

## When are Closed-Chain Exercises used ?

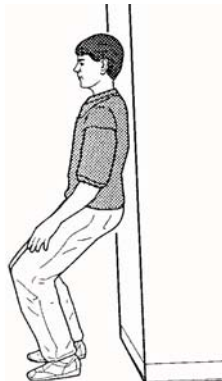
A closed-chain exercise helps strengthen muscle groups rather than single muscles and helps the muscles to work together. Many activities and movements we do every day, like walking, use these types of control and movement. Your normal strength is maintained by lifting your body weight against gravity when you stand up, sit down or push and pull.

These exercises are also used to train specific muscle groups to do special activities like running, climbing, or sports. The resistance is used to increase strength. For example, doing these exercises after knee ligament surgery reduces the forces at the knee, because your foot takes up some of the resistance.

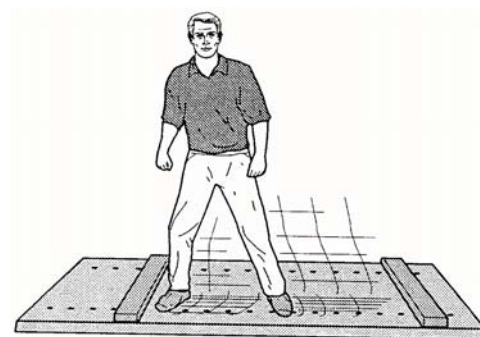
**Terminal Knee Extension**



**Wall Slide**



**Leg Slide**



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