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**BACKGROUND:** Rock climbing is the sport of climbing rock faces with the help of ropes and special equipment. It is physically demanding, combining fitness and agility with the mental fortitude required to conquer an ascent. Bouldering is a basic form of climbing that can be done indoors or outdoors. It uses short movements without harnesses or ropes as the climber moves over small rocks or boulders. It features routes with a shorter height, but still has many complex and challenging routes. Sport climbing is mostly enjoyed outside. With the assistance of a partner holding a rope, the climber ascends a bolted and established rock face using a harness, ropes, and a belay system. The routes in this type of climb are higher, and therefore require more safety equipment.

(Source: <https://www.explore-share.com/blog/what-is-rock-climbing/>)

**ROCK CLIMBING INJURIES:** Because of rock climbing's excessive use of upper extremities, twisted positioning of lower extremities, rockfall, and falling from excessive heights, the sport creates a higher injury potential that range from acute trauma to chronic overuse injuries. The primary strains from climbing are in the hands, elbows and shoulders, and landing injuries affect the foot, ankle, knee and low back. Physical therapists that treat patients with climbing injuries find that hand injuries are the most common tending to be overuse injuries of the flexor tendons of the hand. The second most common injuries are in the elbow region such as tendinitis and nerve entrapment issues. Shoulder injuries are the third area of the upper body with common injuries. Studies that have estimated the prevalence of injuries associated with rock climbing vary between 10% and 81% regardless of the cause. Between 10% and 50% for impact injuries, between 28% and 81% for non-impact acute trauma injuries, and between 33% to 44% for chronic overuse injuries.

(Source: [https://www.physio-pedia.com/Rock\\_Climbing\\_Injuries](https://www.physio-pedia.com/Rock_Climbing_Injuries) and <https://www.theunion.com/lifestyles/health/john-seivert-rock-climbing-injury-prevention-and-treatment/>)

**THE ULTIMATE FULL BODY WORKOUT:** Experts say running, cycling, rowing, and conventional gym workouts teach the body to perform consistent, repetitive motions that build strength and increase cardiovascular fitness. However, rock climbing is a far more complex movement! Research suggests this kind of dynamic muscle activation is more challenging and fatiguing than simpler, repetitive movements. A 155-pound person that climbs with a moderate effort, can burn between eight and ten calories per minute, which is almost equal to intense cardio workouts like spinning. Studies have discovered activities involving balance, muscle coordination, spatial orientation, and other aspects of climbing can significantly improve a person's working memory, as well as other cognitive functions. Researchers also believe that climbing could improve the symptoms of those with neurologic conditions like multiple sclerosis and cerebral palsy. Some studies show that eight weeks of rock climbing may also reduce the severity of depression.

(Source: <https://longevitylive.com/exercise/rock-climbing-ultimate-full-body-workout/>)

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