

NEEDS ANALYSIS

Sport: Women's Ice Hockey

Performance Level: DIII Collegiate

Movements: Forward skating, which consists of the single- and double-support propulsion and single-support glide phases (hip abduction, adduction, external rotation, flexion, and extension, and knee flexion and extension), backward skating, and turning (glide turns or crossover turns), while maintaining knee and trunk flexion. Upper body movements consist of providing a counterbalance for lateral skating movement (shoulder abduction and adduction), shooting the puck (wrist flexion and extension), and maneuvering for or maintaining position. Maintaining balance and stability is particularly important because proper skating mechanics require the body's center of gravity to be outside of the base of support.

Prime Movers: Total body functional strength, explosive triple extension of lower extremities (gluteus maximus, quadriceps, hip abductors), hamstrings, hip adductors, hip external rotators, core, and wrist flexors and extensors.

Physiological: Phosphagen system to facilitate rapid acceleration and shooting. The glycolytic system to sustain high-intensity skating sprints and minimize buildup of H⁺ ions, and aerobic endurance to facilitate recovery and delay utilization of the glycolytic system.

Common Injuries: Groin strains are the most common, preventable injury in ice hockey. Concussions are the most frequent injury in women's ice hockey. Other common injuries include: facial lacerations, fractures of the foot, wrist, and clavicle, and acromioclavicular joint separations (Moeller & Bracko, 2004; Agel & Harvey, 2010; Maffey & Emery, 2007).