health throughout their careers and into retirement, when the consequences of accumulated joint stress often manifest.

Hip Mobility

The cascade of compensatory patterns triggered by limited hip mobility demonstrates how local restrictions create whole-body dysfunction that Eldoa must address comprehensively. When hip mobility becomes restricted, the lumbar spine must increase its lordotic curve to maintain upright posture, a compensation that research shows can reach 10-15 degrees beyond normal. This lumbar hyperextension triggers a predictable thoracic response, with kyphosis increasing by 10-16 degrees as the spine attempts to maintain its center of mass over the base of support. The thoracic changes then necessitate cervical hyperextension to maintain horizontal gaze, completing a dysfunction pattern that originates from hip restrictions but manifests as neck pain and headaches.

Sport-specific hip mobility requirements vary dramatically based on movement demands, informing targeted Eldoa interventions. Hockey players require 44 degrees of hip flexion combined with 6 degrees of internal rotation just for sprint starts, with elite skaters achieving 65-76 degrees of hip flexion during explosive acceleration. Baseball players need exceptional hip rotation to generate power during batting and pitching, with restrictions directly correlating to reduced velocity and increased injury risk. Basketball players depend on hip mobility for landing mechanics, with limited range forcing compensatory patterns that increase knee injury risk. Golfers require hip rotation for power generation while maintaining spinal stability, a complex demand that restricted hips cannot meet without creating back stress. Football positions show tremendous variation, from linemen needing hip flexibility for low stances to quarterbacks requiring rotation for throwing mechanics. These sport-specific requirements guide Eldoa protocol selection, ensuring that improved hip mobility translates to enhanced performance rather than creating instability that could compromise athletic function.

Hockey Applications

The epidemic nature of hip and groin injuries in hockey reveals the sport's unique biomechanical challenges that Eldoa protocols specifically address. Research documenting that 50% of European professional players report hip and groin problems each season highlights the inadequacy of traditional prevention approaches. These injuries account for 20% of all practice time lost in collegiate hockey, representing a significant impact on both individual careers and team success. The strongest predictor of injury risk proves to be adductor strength ratios, with values below 80% dramatically increasing injury probability. The endemic cam morphology affecting 89% of elite players compounds these risks by creating structural limitations that soft tissue must compensate for, often beyond its capacity.

Eldoa integration into hockey training programs requires careful consideration of the sport's unique demands and competitive schedule. Daily hip decoaptation protocols during the