

## WHEN AND WHY IS IT SAFE TO RETURN TO SPORT? BIOLOGICAL AND FUNCTIONAL CONSIDERATIONS

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Anterior Cruciate Ligament (ACL) reconstruction is one of the most common operations performed by orthopaedic surgeons throughout the world. The purpose of this scientific exhibit is to present a comprehensive overview detailing multiple variables on the clinical decision process to return safely to sport:

1. There are case examples of common challenges that surgeons face when dealing with patients that would like to return to sport early after ACL reconstruction. Additionally, some of the most recent literature has shaped some of the misconceptions managing return to sport beliefs: the notion of early return is transitioning to an overall slower return to sport.
2. Graft healing and its' application to the clinical decision model highlight how the diversity of graft choice and use influences physical therapy management, including evaluation by Magnetic Resonance Imaging (MRI).
3. Evidence based rehabilitation management is criteria based for specific milestones to deem patients appropriate to advance in functional progression and ultimately return safely to athletic activity.

The progress in ACL reconstruction and return to sports has come a long way and requires more prospective studies to identify predictors to return safely to sports.

This also includes future investigations that encompass objective outcome measurements for graft healing and return to sports, biology of the ACL, and advanced imaging modalities for the evaluation of early onset osteoarthritis and cartilage degradation.

In summary, return to sport requires an intimate understanding of criteria based principles in conjunction with a multi-factorial approach of objective measurements, and the understanding of patient preference and desires.