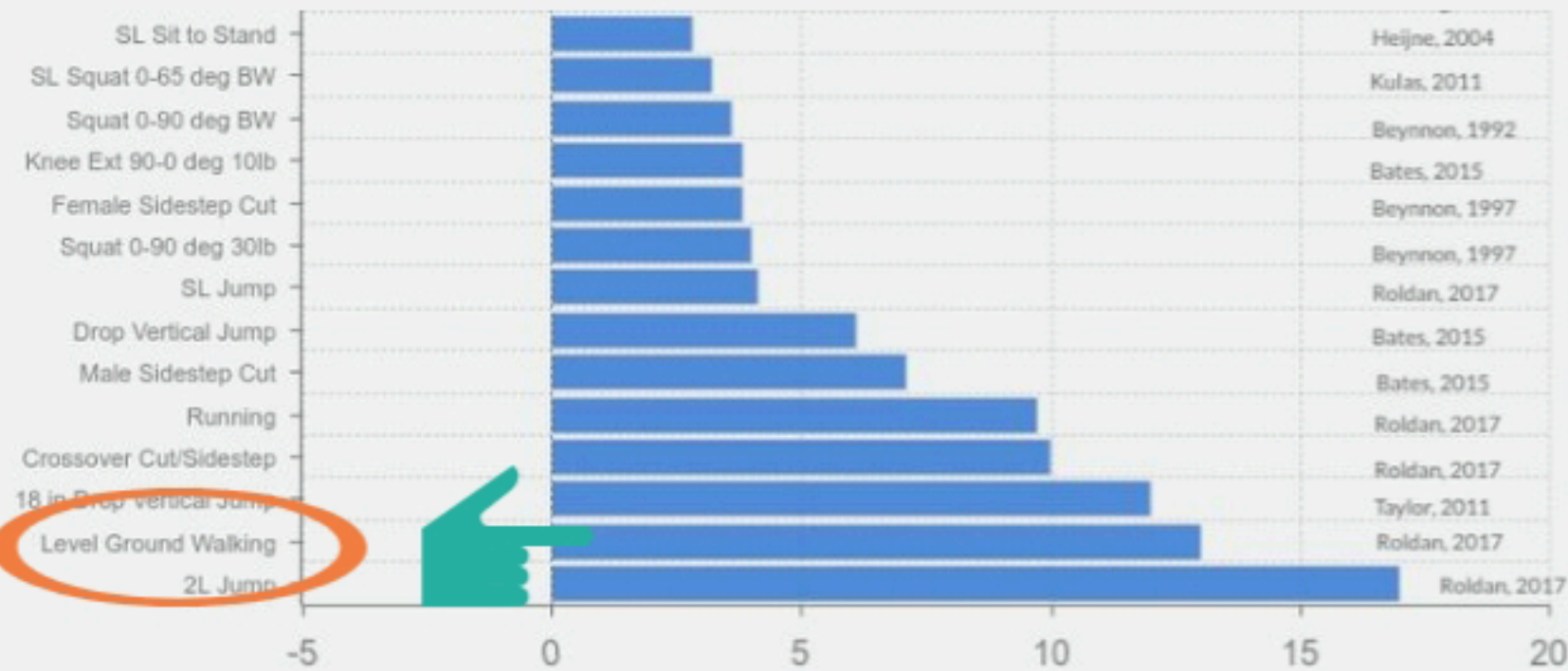


# ACL Tensile Strain with Exercise



## Crutch Discharge Criteria



Peak strain on the ACL is noted at 30 degrees of knee extension as well as walking. While neither are avoidable or inherently problematic, our goal is to minimize *unnecessary* strain. This often occurs when a patient is either unable to maintain knee extension during early and middle stance phases of gait and/or is missing passive extension. Combine this with thousands of repetitions a day and we are *unnecessarily* straining the repair.

With post-surgical ACLr patients, *before* weaning off assistive gait devices they must be able to;

- Demonstrate symmetrical passive knee extension
- Demonstrate appropriate quad strength with heel strike phase of gait
- Perform a straight leg raise against gravity with no extensor lag (see->)

ONGOING ADMISSION

## Why we don't use the SLR

The straight leg raise (SLR) is ubiquitous in early ACL rehab programming although we believe there is a better way. Patients are given this exercise as it is a part of the crutch discharge criteria but we know performing the SLR with an extensor lag *unnecessarily strains the ACL* ...yet they need to be able to complete it without a lag to move on. The PARADOX! We use the SLR as a measurement not an exercise to minimize graft laxity and almost never program for it.

BECAUSE WE USE A KT-1000 AS PART OF OUR PROGRESSION CRITERIA, WE ARE UNIQUELY AWARE OF ACTIVITIES THAT CAN INCREASE LAXITY IN EARLY MANAGEMENT OF ACLR PATIENTS