# Continuity



We wanted to take a moment to share some of the clinical reasoning with regard to managing the post-surgical ACL patient in an effort to create continuity between you-the surgeon, us-the rehab clinicians, and the patient!



Patients whom have recently undergone surgical intervention are often vulnerable, anxious, or fearful and minimizing ambiguity and confusion is a priority. If you have any input on the information presented here, *please* reach out (email: jonathan@nevpt.com)! Let's keep the conversation going...



TWO LOCATIONS TO SERVE OUR COMMUNITY

5255 Longley Lane (South Reno) 775.823.5350

1413 S. Virginia St (Midtown)

775.507.4210



25%

Minimum weakness needed for manual muscle testing to be valid- *Nagatomi et al* 2016

### IF YOU'RE NOT ASSESSING

ALL OBJECTIVE STRENGTH

TESTING AT NEVADA

PHYSICAL THERAPY IS

COMPLETED USING

HANDHELD DYNAMOMETRY

## YOU'RE GUESSING

WWW.NEVPT.COM

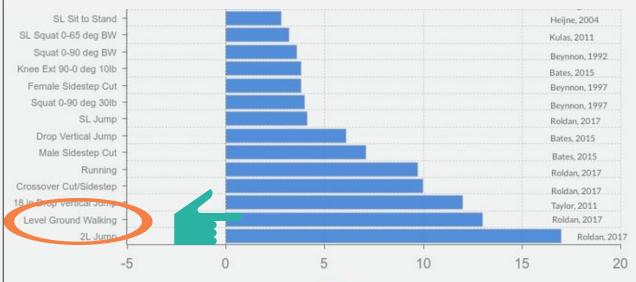
Our goal is to be better and we believe holding ourselves to the highest of standards AND effective communication and collaboration with our surgeons is the way.

OUR MIDTOWN LOCATION

70%

The percentage of rehab clinicians that use manual muscle testing to measure strength in ACLR testing-Greenberg et al 2019

### 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->)



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