

EMORY

SPORTS MEDICINE
CENTER

Team Physicians for:



Pre-Operative PT AFTER ACL INJURY

GOOD USE OF RESOURCES OR WASTE OF TIME

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$$\text{V (VALUE)} = \frac{\text{Q (QUALITY)} + \text{S (SERVICE)}}{\text{\$ (COST)}}$$

GOOD USE OF RESOURCES

- Grindem et al BJSM 2015: PT yielded better subjective scores on KOOS at 2yrs
- De valk et al arthroscopy 2013: Pre-op quad strength deficits > 20% and low eccentric quad torques associated with:
 - Lower Cincinnati knee score
 - Poor quad strength
 - Lower KOOS score

GOOD USE OF RESOURCES

- Shaarani et al AJSM,2013: Six week prehab program resulted in:
 - Increased hop performance vs. controls
 - Higher Cincinnati knee score vs. controls
 - Gains sustained at 12 weeks post-op
- Failla et al AJSM,2016:
 - DOC cohort higher IKDC and KOOS scores
 - RTS rates 72% DOC group vs. 63% MOON database

DOES IT REALLY MATTER

- Thoma et al, AJSM 2019: 2 yr f/u study
 - 10 sessions of NMT after ACL injury resulted in improvement to copers classification from 55% to 68%.
 - ACLR + copers classification 2.3x increased odds of success vs. ACLR + non-copers
 - Success defined as top 15% IKDC age/sex matched score; no graft rupture; <1 episode of instability

WISE USE OF RESOURCES?

- Results of studies can add up to 3 months before surgery
 - Delay can affect next sports season
- Increased costs with more PT visits
- Insurance Limitations with PT plans
- Current USA practice patterns

WHO IS THE IDEAL CANDIDATE

- Significant deficits after injury
 - Quad activation and strength
 - ROM limitations
 - Gait abnormalities
 - “Hot” knee
- No timetable for return
- Fear of movement
- Multi-ligament injury

THANK YOU

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