

Appendix G

SURVEY: IN PURSUIT OF SUCCESSFUL MANAGEMENT OF ACL INJURIES

In Pursuit of Successful Management of ACL Injuries

Greetings Colleagues, You are being asked to complete this survey to assist the research community in identifying cases of successful outcomes after anterior cruciate ligament injuries. There are many different factors which surgeons, physical therapists and researchers consider to identify success after injury, but no clear consensus. Our goal is to identify how each of these groups identifies successful outcomes to ensure accurate assessment by the clinician and researcher. The following questions have been formulated with regard to the current identifiers of success from the literature as well as input from orthopedic surgeons, physical therapists and other professionals. If you feel that an aspect has been overlooked, please feel free to add your comments to the end of this survey. As always, your responses will be kept confidential and your participation is wholly voluntary. Permission to collect data has been obtained from the University of Delaware Human Subjects Review Board and this work is funded from an R01 grant from the United States National Institutes of Health. Thank you for your time and efforts in advancing the science of ACL injury management!

Sincerely,

*May Arna Risberg, Lynn Snyder-Mackler, Lars Engebretsen, Michael Axe
and the Oslo-Delaware Research Collaboration*

Please provide the following demographic information to allow us to differentiate the opinions of different disciplines.

What is your profession? (If you are both a clinician and a researcher, please select both.)

- Orthopedic Surgeon
- Physical Therapist
- Researcher
- Other

What is your primary research focus? (Free Response)

You selected "Other", please identify your profession. (Free Response)

How many years have you been practicing in your profession? (Free Response)

In what country do you practice or research? (Free Response)

On which continent do you practice or research?

- Africa
- Asia
- Australasia
- Europe
- North America
- South America

Which professional organizations do you belong to?

- American College of Sports Medicine (ACSM)
- American Physical Therapy Association (APTA)
- American Academy of Orthopedic Surgeons (AAOS)
- American Orthopedic Society for Sports Medicine (AOSSM)
- Association of Turkish Sports Physiotherapists (ATSP)
- Belgische Vereniging van Manueel Therapeuten-Association Belge des Thérapeutes Manuels (BVMT-ABTM)
- Canadian Orthopaedic Division
- Canadian Physiotherapy Association
- Chartered Physiotherapists in Manipulative Therapy (CPMT)
- Chartered Physiotherapists in Sports and Exercise Medicine (CPSEM)
- Comitê de Fisioterapia Esportiva do Estado do Rio de Janeiro (COFEERJ)
- European Society of Sports Traumatology, Knee Surgery and Arthroscopy (ESSKA)
- German Federal Association of Manual Therapists (DFAMT)
- Gruppo Di Terapia Manuale, a special interest group of Associazione Italiana Fisioterapisti (AIFI)
- International Society of Arthroscopy, Knee Surgery and Orthopedic Sports Medicine
- Irish Society of Chartered Physiotherapists (ISCP)
- Israeli Physiotherapy Association
- Israeli Society of Physiotherapists (ISPT)
- Orthopedic Research Society (ORS)
- National Athletic Trainers Association (NATA)
- New Zealand Sports and Orthopaedic Physiotherapy Association (NZSOPA)
- Norwegian Sport Physiotherapy Group (NSPG) of the Norwegian Physiotherapist Association
- Orthopaedic Manipulative Physiotherapy Group (OMPTG) of the South African Society of Physiotherapy (SASP)
- Physio Austria (PA)
- Portuguese Sports Physiotherapy Group (PSPG)
- Suomen Ortopedisien Manuaalisen Terapian Yhdistys ry (SOMTY)
- Sociedad Chilena de Kinesiología del Deporte (SOKIDE)
- Sports Injury Section of the Hellenic Scientific Society of Physiotherapy (HSSPT)
- Sports Physiotherapy Australia (SPA)
- Svenska Fotbollssjukgymnasters Förening (Swedish soccer PT association)
- Swedish Society of Sports Medicine
- Swiss Sports Physiotherapy Association (SSPA)
- Other _____

Other than measures of passive stability (arthrometer, pivot shift test) do you have different criteria for success for non-operative versus operative management of ACL injuries?

- No, I use the same criteria for identifying success in both ACL deficient and reconstructed athletes, with the addition of measures of static stability for ACL reconstructed athletes.
- Yes, I have different criteria to identify success for ACL deficient and ACL reconstructed athletes.
- I do not allow ACL deficient patients to return to sport.

Do you have different criteria to differentiate success between one and two years post-operatively?

- Yes, I use two distinct sets of criteria to differentiate success between 1 and 2 years post-operatively.
- No, I use the same criteria to define success at 1 and 2 years post-operatively.

Do you have different criteria to differentiate success in non-operative management between one and two years after injury?

- Yes, I use two distinct sets of criteria to differentiate success between 1 and 2 years after injury.
- No, I use the same criteria to define success at 1 and 2 years after injury.

Do you have different criteria to identify success between 1 and 2 years after injury in ACL deficient athletes or surgery in ACL reconstructed athletes?

- Yes, I use two distinct sets of criteria to differentiate success between 1 and 2 years.
- No, I use the same criteria to define success at 1 and 2 years.

Based on the responses to the previous four questions, the following three blocks of questions were provided to survey respondents up to four times concerning the four time points in question:

- 1 year post-reconstruction
 - 2 years post-reconstruction
 - 1 year post-injury in non-operative management
 - 2 years post-injury in non-operative management
-

If respondents used the same criteria to identify success in operative and non-operative management and used the same criteria at 1 and 2 years, they were presented with the questions one time. Their response was attributed to all four time points.

If respondents used different criteria to identify success in operative and non-operative management but used the same criteria at 1 and 2 years, they were presented with the questions twice. Their response was attributed to both time points for operative and non-operative management respectively.

If respondents used different criteria to identify success in operative and non-operative management and used different criteria at 1 and 2 years, they were presented with the questions four times. Their responses were attributed to the appropriate condition and time point.

Operative Management - 1 year after ACL Reconstruction

Please indicate below which criteria you think identify successful operative management of ACL reconstruction, 1 year after reconstruction.

- Primary Importance: this criteria should be measured in all cases, as it is truly important for success.
- Secondary Importance: indicates good progress, but is not necessary for success.
- Not Important/Do Not Use: does not effect the outcome or does not matter, or I do not use it.
- Indifferent: no opinion on the value of this measure.
- Unfamiliar with measure.

One year after surgery, the following criteria are necessary for successful management:

	Primary Importance	Secondary Importance	Not Important/Do Not Use	Indifferent	Unfamiliar with Measure
Play 1 season in the sport of injury at the same level as prior to injury.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not have more than a mild persistent effusion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not have any episodes of giving way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not have radiographic progression of osteoarthritis.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have a laxity difference of less than 3mm on instrumented testing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A pivot shift grade of normal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Symmetrical quadriceps strength (>90 of uninvolved limb)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Symmetrical hamstrings strength (>90 of uninvolved limb)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Symmetrical performance on a functional test.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self report of function greater than 90% on an outcome tool.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If respondents indicated that they considered functional tests important at a given time point, they were asked to identify which test they used.

Operative Management - 1 year after ACL Reconstruction

- *Primary Importance: this criteria should be measured in all cases, as it is truly important for success.*
- *Secondary Importance: indicates good progress, but is not necessary for success.*
- *Not Important/Do Not Use: does not effect the outcome or does not matter, or I do not use it.*
- *Indifferent: no opinion on the value of this measure.*
- *Unfamiliar with measure.*

Which of the following functional tests do you utilize?

	Primary Importance	Secondary Importance	Not Important/Do Not Use	Indifferent	Unfamiliar with Measure
Hop Test (Noyes et al)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Balance Test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tuck Jump Assessment (Myer et al)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If respondents indicated that they considered patient reported outcomes as important at a given time point, they were asked to identify which PRO they used.

Operative Management - 1 year after ACL Reconstruction

- *Primary Importance: this criteria should be measured in all cases, as it is truly important for success.*
- *Secondary Importance: indicates good progress, but is not necessary for success.*
- *Not Important/Do Not Use: does not effect the outcome or does not matter or I do not use this measure.*
- *Indifferent: no opinion on the value of this measure.*
- *Unfamiliar with measure.*

Please indicate which self-report outcome measure(s) you use and how important they are. You will then be asked to provide a cutoff score for the measure(s) you chose.

	Primary Importance	Secondary Importance	Not Important/ Do Not Use	Indifferent	Unfamiliar with Measure
Knee Outcome Score - Activities of Daily Living Scale (KOS-ADLS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knee Outcome Score - Sports Activities Scale (KOS-SAS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knee Injury and Osteoarthritis Outcome Score (KOOS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Global Rating of Perceived Function	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International Knee Documentation Committee Subjective Knee Form (IKDC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cincinnati Knee Score	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tegner Activity Level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lysholm Knee Score	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marx Activity Rating Scale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If respondents indicated that they considered a PRO important at any given time point, they were asked to identify a cutoff score for that test.

You have indicated that at at least one time point you use an outcome measure to define success. Please indicate which score you use as a cutoff to define success at each time point listed.

	1 year post-operatively	2 years post-operatively	1 year non-operative	2 years non-operative
Knee Outcome Score - Activities of Daily Living Scale (KOS-ADLS)				
Knee Outcome Score - Sports Activities Scale (KOS-SAS)				
Knee Injury and Osteoarthritis Outcome Score (KOOS)				
Global Rating of Perceived Function				
International Knee Documentation Committee Subjective Knee Form (IKDC)				
Cincinnati Knee Score				
Tegner Activity Level				
Lysholm Knee Score				
Marx Activity Rating Scale				

Please provide any additional comments concerning identification of successful management of ACL injuries, either operative or non-operative.

(Free Response)