REHAB 2 PERFORM™

A Guide 2 Optimize Your Patient's

ACL REHAB EXPERIENCE

4 Critical Areas 2 Emphasize

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INTRO

ACL Rehab is absolutely my favorite injury to treat as a Sports Physical Therapist. Unfortunately, I have experience with this rehab process not only as a clinician, but also as a patient. I suffered two ACL injuries while in high school. Once, during my Junior year playing football and then again during my Senior year playing lacrosse.

Despite the disappointment and frustration associated with the injury, I do genuinely believe these events positively influenced my understanding and approach as a clinician after going through these experiences myself.

ACL injuries have always been a hot topic in sports rehab. With the evolution of youth and adolescent sports, year round competition and individuals striving to become the most physically gifted version of themselves, we find athletes becoming increasingly exposed to this particular injury. If you are a PT, odds are you have or will encounter this patient population at some point.

While every patient encounter is unique, there are some universal principles that apply to them all. Whether you are a current DPT student or seasoned veteran, keeping these thoughts top of mind are a great way to frame up your own personal approach to this injury and deliver a personalized plan of care for your given athlete.

This document outlines and discusses 4 key areas to guiding a successful ACL rehab experience for your patient....

SETTING EXPECTATIONS

Setting expectations is a huge piece of the puzzle in making sure everyone starts off on the right foot as it reduces the anxiety and uncertainty for patients that often accompany a surgical procedure.

It is imperative that the surgeon and rehab team are communicating consistent messages to the patient. This allows the patient to mentally prepare for the upcoming months of rehab and create realistic goals and aspirations.

In addition, it keeps them an informed member of the team and allows them to make safe and appropriate decisions throughout the rehab process. It is also instrumental that the patient is not only made aware of what realistic expectations are, but also what factors may influence how they play out in real time.

Common questions that are brought up by the patient are:

- When can I walk without my brace and crutches?
- When can I drive and do my normal school or work activities?
- When can I run?
- When can I start practicing again?
- When can I play in a game?

SETTING EXPECTATIONS

Be sure to provide the patient with general time frames of when these events occur, but make them aware that being cleared for each of these items is a combination of *chronological* and *criteria* based factors.

Biological healing time frames are an example of what goes into the chronological considerations. These tend to be relatively straightforward and generally universally accepted across patients. The healing processes for different tissues and structures (bone, cartilage, muscle, tendon, ligament) are well documented and guide decision making with regards to weight bearing, loading and progressive dynamic tasks and movements.

Criteria based factors involve measuring various impairments and determining how those physical impairments will influence movement or outcomes. These two will often go hand in hand, meaning as someone gets further out from surgery, they will also have fewer measurable impairments.

However, not everyone progresses at the same rate and utilizing criteria based testing is a great way to ensure that our plan of care is meeting the needs of the patient and accomplishing our goals.

CRITERIA BASED REHAB

Criteria based testing allows us to objectively determine a patient's status. With this data, we can make informed decisions and recommendations on an athlete's readiness and preparedness to progress into different phases of rehab and participation in various activities.

We often have a general idea of where to expect an individual to be based on their time frame since surgery. However, without actually performing testing on an athlete, we are simply making assumptions.

There are a variety of tests that may be performed during ACL rehab, but the following are commonly utilized:

***Circumference Measurements*:** Allows us to measure muscle atrophy and growth over time, in addition to, the presence of any swelling.

***Range of Motion*:** Restoration of knee extension and flexion is critical and should be accomplished early in the rehab process. This allows for optimal movement potential and allows muscles to function in their ideal length-tension relationships.

CRITERIA BASED REHAB

Strength: There are a variety of ways to measure strength and methods to interpret this data. Strength can be looked at in isolation through isometric strength testing of the quads and hamstrings with handheld or in line dynamometry.

It can also be measured with body weight movements such as an anterior step-down test, Y Balance Test, Single Leg Wall sit, Single Leg bridge or Single Leg calf raise test.

Furthermore, you can utilize traditional weight room exercises such as different squatting and lunging variations to measure strength progressions.

With all of these testing options, you can look at limb symmetry, pre-injury status or normative testing benchmarks to determine if someone is on schedule or not.

CRITERIA BASED REHAB

Plyometric: When appropriate strength metrics are met, we can begin plyometric programming and testing. This allows us to see an athlete's ability to not only develop force, but measure their rate of force production, and also abilities to dynamically absorb and redirect forces with impact through various positions of joint loading and unloading.

Pogo testing, lateral line hop testing, horizontal hop testing and vertical force plates testing batteries are utilized to assess these qualities.

Agility/Sport Specific: While there may not be objective tests for every athletic activity, it is important to have an athlete go through a wide range of sport specific movements and critically evaluate their movement competency and confidence.

A 5-10-5 or pro agility, is an example of one of the tests that can be used to help identify any impairments present.

CRITERIA BASED REHAB

Energy Systems Development- Physical conditioning and an individual's aerobic and anaerobic fitness should be assessed to make sure that an athlete is ready to handle the rigors and physical demands of their sport. Fatigue can influence an athlete's performance and movement strategy. Making sure they are resistant to fatigue is a must!

Psychological Readiness- Returning from ACL surgery is a psychological feat to accomplish. Just because someone looks good externally, you don't know how they feel internally. The ACL-RSI is a great tool to measure this!

INTENTIONAL PROGRAMMING & EXERCISE SELECTION

Programming for a postoperative patient can be intimidating due to the length of time you are programming and the variety of things that need to be addressed.

When looking at such a large timeframe, it is important to step back and think of a few simple questions:

1. What does this athlete need to be able to do to return to sport?

Think of the measurable qualities they need and the various movements they have to return to doing. If you know what the end game is, then you can simply reverse engineer from there. Think of a movement they need to do, then simplify the movement by reducing a variable, then do it again and again and again. Before you know it, you just created a 6-8 stage movement progression that can be implemented across several months for this person.

2. When does this athlete need/want to return to competition?

If we have an expected timeframe for return to sport (12 months, 9 months, 10 months, indefinite, etc) and we know what we need to accomplish to return to sport from a testing standpoint, then we can begin creating checkpoints at various phases and implementing testing dates throughout the whole rehab process. This breaks down our plan of care into different rehab phases and training cycles that match up cleanly with postoperative protocols. Having testing benchmarks along the way allows us to see if adequate progress is being made and how to appropriately modify exercise intensity, volume and selection.

INTENTIONAL PROGRAMMING & EXERCISE SELECTION

3. What is the athlete currently capable of doing now?

This is where testing plays such a critical role. Being able to definitively state an athlete's functional capabilities and capacities and determining a logical entry point for activity. This safeguards us from under programming and providing activities that do not provide a stimulus large enough to yield the desired physiological change that we are after. On the other hand, it ensures that we do not overestimate one's ability and put them in unproductive and potentially dangerous positions.

4. What is preventing the athlete from moving forward?

This is really the million dollar question and an extremely critical part of the exercise selection process. With testing results, we are able to gain a better understanding of individuals' physical qualities in isolation. We can then use our clinical judgment to determine which of these impairments is the most influential to their expression of movement and performance in a given task.

RETURN 2 SPORT CHECKLIST

When returning an athlete to sport, there is always a risk that an athlete can suffer a re-injury. However, if you can answer the following questions truthfully, then you can rest assured that all parties have done their due diligence to put this individual back into competition with the highest potential for success.

1. Have appropriate medical timeframes elapsed?
2. Have orthopedic impairments been resolved?
3. How does the individual compare to their pre-injury status?
4. How does the individual compare to their peers?
5. Have they been exposed to the demands of their sports in a logical timeframe?

CONCLUSION

ACL rehab is my absolute favorite thing to do in my profession as a physical therapist. First and foremost, I underwent the surgery twice myself and I can empathize with the individual. It can be a grueling process for a patient. You are thrown out of your regular routine and lose a piece of your identity when you are sidelined from competition.

Going through this process personally and now after helping hundreds of others navigate this process, I feel comfortable saying there are ways to minimize this stress and burden on the patient if we are intentional with our actions and keep open and clear lines of communication.

Second, it is a very long term rehab process that allows you to maximize and showcase your skills as a rehab and human performance professional. You get to blend the medical side of physical therapy with the strength and conditioning lens of human performance.

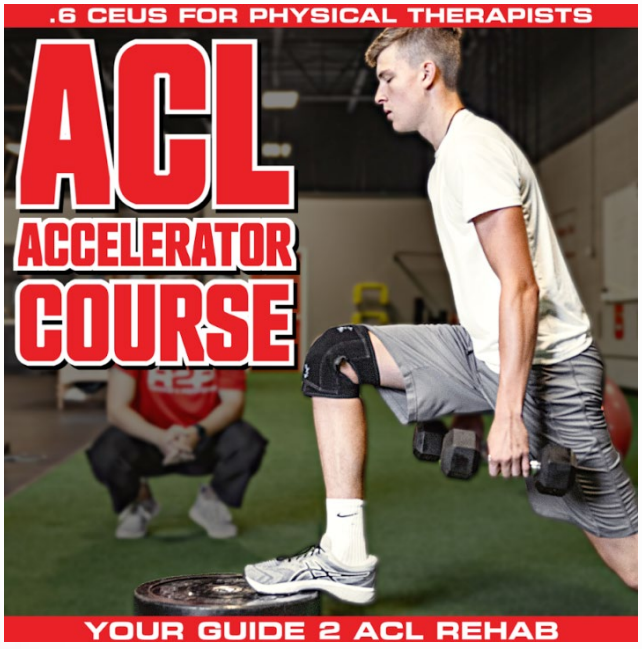
Third, you get to build rapport and really connect with your patients due to the duration of this rehab process. We got into the profession to help people and it is tremendously rewarding to see a patient's hard work pay off and know that you provided an environment for them to accomplish this.

Let's connect! follow me on Instagram!
@zdbaker30 & @rehab2perform

ELEVATE YOUR EDUCATION

For those looking to level up their ACL Rehab experience as a clinician, check out my ACL Accelerator Course**. It is an online, self-paced, accredited continuing education course worth 6 hours of CEU's.**

- The course is broken down with month-by-month progressions covering monthly goals, exercise progressions and testing procedures.
- Exercise progressions are broken into strength, locomotive and plyometric exercises and samples of PT sessions at Rehab 2 Perform are included as reference.
- Monthly tests are broken down to provide the purpose, procedure and expected results for the test and how that will influence your exercise selection.



When you purchase the course, you will have lifetime access to the course, including any and all updates that get added in the future.

If you have any questions, don't hesitate to reach out! Dr. Zach Baker: DrBaker@rehab2perform.com

SAVE 25% RIGHT NOW!

Thank you for downloading this E-Book! We hope you found it beneficial in your practice. Now, use THIS SPECIAL LINK to Save 25% Right Now on the ACL Accelerator Course!