

ACL REHAB

PROGRAM & PROTOCOL



INJURY &
SURGERY



GYM
TRAINING
INTEGRATION



INTRODUCE
CONTROLLED
SKILL WORK



RETURN TO
COMPETITION



IMMEDIATE
CARE



RETURN TO
JOGGING



RETURN TO
CHANGE OF
DIRECTION



Welcome to the Sport Science ACL Clinic

We want to extend our sincere welcome to you at the Sport Science Rehab and Performance Centre in Ottawa. We understand that receiving the diagnosis of a torn ACL, and the impending journey of physiotherapy and rehabilitation, can be daunting. We assure you that you don't need to navigate this alone. Our dedicated and integrated team will guide and support you through this process.

Our approach to rehabilitation is based on the following core principles:

Integrated Approach:

Our team at the centre comprises practitioners from a variety of fields to leverage their collective expertise. This includes experts in sports medicine, physiotherapy, sports science, nutrition, rehabilitation, and biomechanics. We also know that the rehabilitation process can be demanding both physically and mentally, so we have created a partnership with Attollo Health to support your mental health and performance as needed. Overall, our goal is to support you through a holistic approach that provides you with every resource you need to reach your goals.

Individualized:

We believe in tailoring rehabilitation to the individual, as needs will differ depending on goals, chosen sport/activity, and the specific ACL surgery and procedure performed (i.e., graft type, secondary injuries, mechanism of injury). We also monitor your program and make adjustments based on your results.

Criteria-Based Rehab:

Further to individualizing your program, we believe in a data-driven approach, where we track your progress throughout rehabilitation and progress based on specific criteria rather than a strict timeline. This approach helps ensure that you are ready to move to the next phase, rather than assuming readiness based solely on time post-surgery (i.e., 3 months).

Research-Informed:

Our team continually updates our processes based on the latest research and in-house case studies. This helps ensure your rehabilitation journey is as efficient and effective as possible. We have used current research to establish criteria for major milestones, including return to running, return to change of direction, and return to sport.

Professional-Grade Resources:

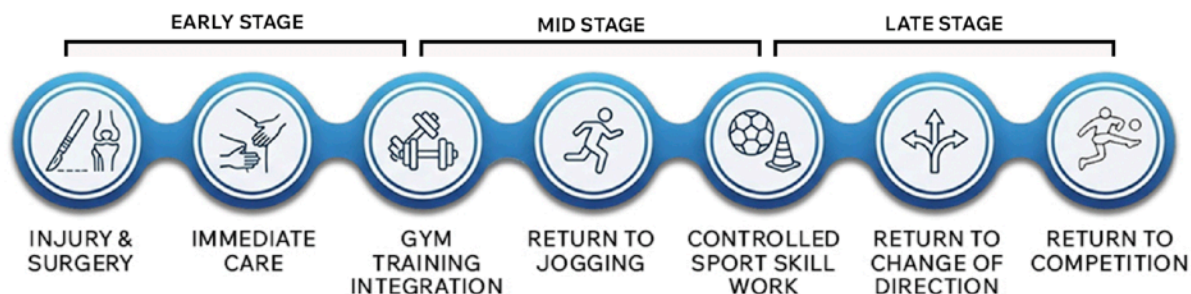
We are committed to utilizing the latest technology and equipment to ensure you receive the most effective and up-to-date care available. We also prioritize maintaining a well-organized, clean facility and providing professional-level coaching to ensure you are progressing appropriately throughout your rehabilitation.

Should you have any questions or concerns regarding your treatment plan, progress, or any other matters, please do not hesitate to communicate with us. We are here to address your needs and provide you with the necessary information.

Your commitment to your recovery is crucial, and we are here to facilitate your journey back to daily activities and sport. Our goal is to help you achieve a higher level of performance than pre-injury. We look forward to working closely with you and helping you regain strength, mobility, function, and confidence. We are honoured to be a part of your recovery process and are confident that, together, we will achieve positive outcomes.

Sincerely,
The HW and Sport Science Team

THE ACL REHAB JOURNEY



EARLY STAGE REHAB

HEALING, MOBILITY, ACTIVATION

- Protect surgical site for healing
- Regain range of motion (knee flexion and extension)
- Retrain neuromuscular control (good quad activation)
- Normalize walking gate, without crutches or compensation & progress to stairs
- Begin lower body strength endurance and full body movement patterns (squat, hinge, single leg control)

Recommended Treatment Frequency

- Physio x2 per week for the first 6-8 weeks
- Integrate Strength & Conditioning x1 per week at 6 week mark



MID STAGE REHAB

STRENGTH, JOGGING, LIGHT PLYOMETRICS

- Progress exercise for balance and proprioception
- Build max strength for lower body & core
- Reintroduce lateral and rotational movement progressions
- Introduce low impact plyometrics and braking / decelerations
- Progress towards reintroduction of jogging and controlled change of direction

Recommended Treatment Frequency

- Physio as needed
- Strength coach 1 x per week



LATE STAGE REHAB

POWER, AGILITY, RETURN TO SPORT

- Plyometrics & multidirectional decelerations
- Controlled cutting & agility drills
- Sport specific movement retraining, progress from controlled to chaotic
- Gradual return to non-contact > controlled contact > gameplay

Recommended Treatment Frequency

- Physio as needed
- Strength coach 1 x per week



HEALTH



SPORT SCIENCE
REHAB & PERFORMANCE

PLANNING YOUR REHAB - THE ACL ROADMAP

A Clear Plan to Guide you Recovery from Injury to Performance

Each patient in the Sport Science ACL Rehab Program will work on a YTP calendar. YTP is a widely used acronym in strength and conditioning that means “Yearly Training Plan”. We use this broad view of your rehab to coordinate out teams and processes for your individual development. The illustration below represents the progression through the phases of rehab. You will see at the beginning rehab will be heavily treatment focused (red). We will then move to a focus on exercise progressions (yellow), including strength, stability, plyometrics and then running. Thirdly you will see a final transition towards sport/client centred goals, with the transition to sport-specific skills, controlled practice (orange) and then chaos/decision making drills & Games (green and blue). Lastly you will see testing at the end of each block, before moving onto a new program.

January							February							March						
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July							August							September						
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October							November							December						
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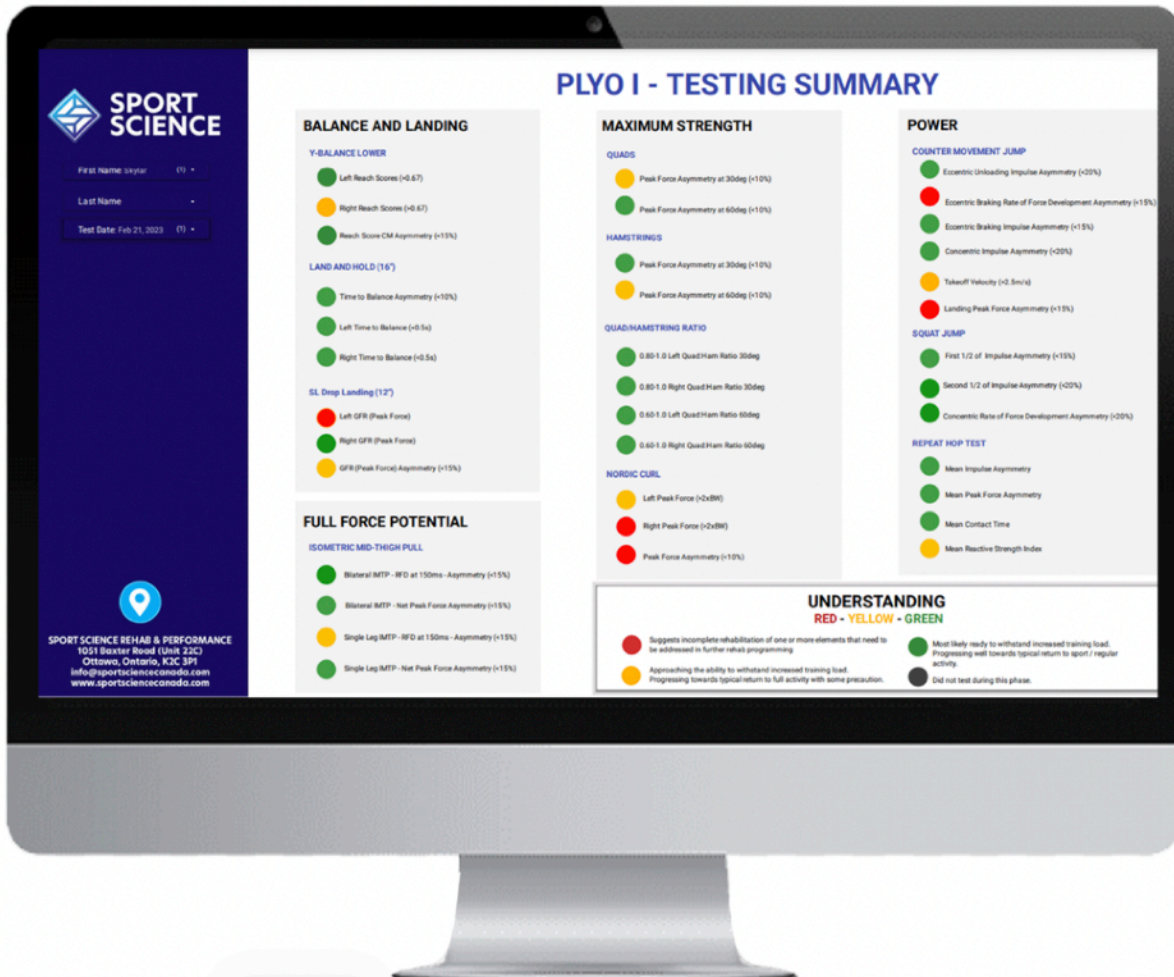
- Treatment
- 1 on1 Gym Session
- Testing
- New Program

- Skills/Non-Contact Practice Integration
- Contact/Raction/Chaos Integration
- Integration Competiton /Games

INDIVIDUALIZED, CRITERIA BASED REHABILITATION

Every ACL Journey is Unique - Your Progress is Measured, Tracked and Clearly Communicated Throughout

The criteria by which you will progress from one phase of rehab to the next is based on a series of tests performed using research grade testing technologies. The technologies reveal your capabilities to withstand the forces and movements required of the next phase of programming as well as your eventual return to activity and / or sport. Below is a sample report from the end of our "Plyo 1" phase. The green dots indicate that the patient has demonstrated sufficient performance on the test. The yellow dots are test results which we will keep an eye on. The red indicated areas where we would want to see further improvement. These testing results are shared across your integrated team, and will directly shape your next phase of exercise programming.

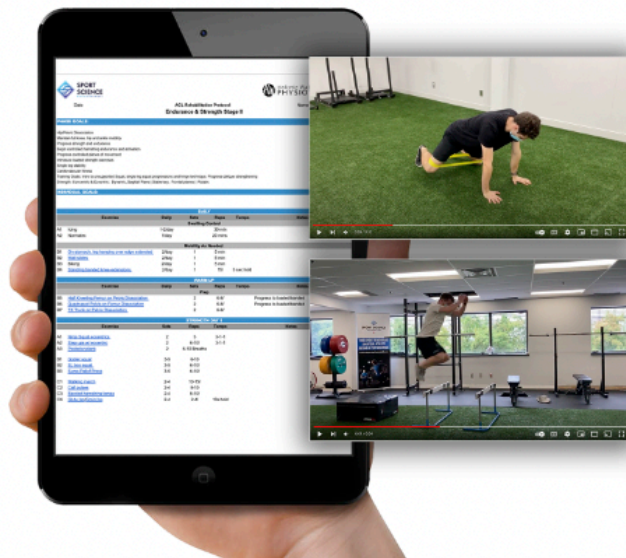


YOUR INDIVIDUALIZED PROGRAM

At the core of your ACL rehab is a progressive, structured exercise program. As you move beyond the early stages of rehab, your care will increasingly focus on highly specific and individualized training.

Based on your testing data and guidance from your physiotherapist, each program is fully customized to your needs. Your exercises are delivered in a clear, easy-to-follow format, so you always know exactly what to do and why.

You'll receive detailed exercise plans, including sets, reps, and tempos, along with coaching support and video demonstrations for every movement.



GOOD	BETTER	BEST
Book and attend the proposed appointments with physio and S&C according to YTP	Book and attend the proposed appointments with physio and S&C according to YTP	Book and attend the proposed appointments with physio and S&C according to YTP
Complete exercises diligently and according to prescription	Complete exercises diligently and according to prescription	Complete exercises diligently and according to prescription
	Purchase a Supervised Gym Pass and complete your workouts in our gym with our coaches	Purchase a Supervised Gym Pass and complete your workouts in our gym with our coaches
		Book regular 1:1 training sessions with coaches to achieve maximally effective results.

PROFESSIONAL GRADE RESOURCES

Multidisciplinary Teams

Our team is comprised of practitioners from a variety of fields. Each asked to leverage their collective expertise to maximize patient outcomes. This includes experts in sports medicine, physiotherapy, sports science, nutrition, rehabilitation, and biomechanics. While each field has contributed significantly to the design of the protocol (as a whole), they are also brought into each patient case as needed to help keep the patient progressing and on track to meet their goals.

Acute Care with Game Ready, Muscle Stim and BFR

When rehabbing with HW /// Sport Science, we will work to provide access to game changing rehab technologies. We've carefully selected a series of modalities to integrate in the early phases of rehab. Generally speaking, these are aimed at reducing inflammation, restoring range of motion and reducing atrophy.



Research Grade Testing Tech

When we start progressing patients into the gym environment, we leverage a suite of physical testing technologies. These technologies provide invaluable insight to the team specific areas of need in programming. The VALD technology suite is particularly useful in identifying movement and strength properties that demonstrate readiness to advance into the next phases of programming. In simple terms, these technologies are the key piece of the puzzle of individualizing your program to get the best results.



Rehab Exercise Equipment

Because we are specific in targeting movement qualities and strength and force properties, we employ the use of exercise equipment that is often only found in pro sport environments or high high tech rehab facilities. These tools allow you to maximize the time that you put into your exercise by ensuring that we are targeting the your specific needs.



THE SUPERVISED GYM

At Sport Science, part of our mission is to empower you to pursue your own health and performance goals. Given the extent of an ACL injury and the implications for extended and extensive rehabilitation, you will need to spend quite a bit of time with your physio and strength coach. As you progress through each phase, it is our goal to help you engage in your rehab exercises and workouts more independently. With that being said, the watchful eye of a trained professional and access to leading rehab equipment and technology puts you in a highly advantaged position to get the best outcomes in your rehab. With that, we were excited to be able to offer the only strength coach supervised Rehab Gym in the city of Ottawa. This is a unique service where our patients can use our gym and our tech with the support of a professional coach at a fraction of the cost of 1:1 sessions. To make matters even more interesting, there are 20+ Supervised Gym sessions scheduled throughout the week. At your convenience, you can book in and use the sessions throughout the week.



What to Expect At Supervised Gym

Most often, the supervised gym operates with a maximum of 9 patients per hour. During that session, patients arrive at Sport Science, get themselves changed and organized and enter the gym to meet the coach. The patient quickly grabs one of our iPads and pulls up their exercise program (for reference). The coach will help you find a space and get the equipment you need sorted and located. As you get started and get working on your program, the coach will be constantly circulating to provide you with some additional coaching, cueing and feedback on your movements. As you experience and challenge with a movement or feel that you might need a progression or regression in a movement, the coach will gladly support you in optimizing your workout. Truly, an amazing setting to get the best workout.



Membership Fee Structure

The Supervise Gym program operates like most gym memberships. The fee is \$125 per month plus tax. We ask that all members store the credit card on file for automatic renewal. That being said, we do not charge a cancellation fee and are happy to discontinue your membership at your request, at any time.

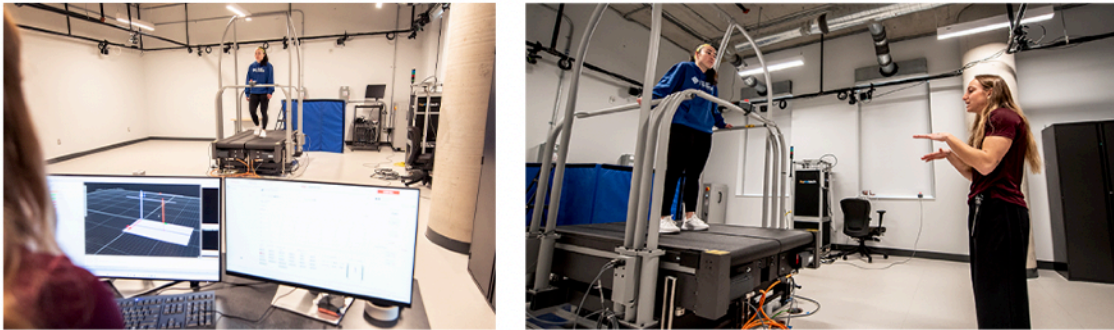
PARTICIPANTS NEEDED

ACL RESEARCH PARTNERSHIP

Linking Lower-Limb Deficits And Whole-Body Biomechanics To Advance Clinical Return-To-Run Decision-Making After Anterior Cruciate Ligament Reconstruction

Our Research Objectives

1. Improve the safety of return to run decision making throughout rehabilitation spectrum, following ACL reconstruction
2. Support harm reduction in ACL Rehab progression (Specific to Return to Run Integration and within jumping and cutting movements)
3. Identify compensatory movement strategies following ACL reconstruction



Benefits to Research Participants

1. Enhanced data and decision making criteria for Rehab and Surgical Team
2. Maximal transparency and feedback in rehab progress
3. Optimized exercise prescription by virtue of improved decision making capabilities
4. Study participation is free of charge. As an additional benefit, participants will be provided with a complimentary Supervised Gym Membership for the first phase of Rehab at Sport Science.



Inclusion Criteria

1. Active females between the ages of 15 and 30 (must have been physically active 3 x per week prior to injury)
2. ACLR Surgery without secondary surgical repair
3. ACL Rehab must be completed in accordance with the Sport Science ACL Rehab Protocol



FOR MORE INFORMATION OR TO VOLUNTEER

www.sportsciencecanada.com/research

email: info@sportsciencecanada.com

phone: (343) 574-1788

FULL SERVICE RECEPTION AND ADMINISTRATIVE TEAMS

When managing an extensive rehab like that of an ACL rupture, it helps to have a few people in your corner that help manage booking, billing and communications. At HW // Sport Science, we believe that the admin and support teams can play an integral role in a successful rehab program. Because you will be here a lot, it will help to have some familiar faces and contacts to provide more clarity and detail at each step in the journey. At each of our 3 Ottawa locations, we are open from 7am until 8pm and are ready and happy to assist. Should you want to carve out some time to plan and talk about booking, billing and instances, we'd invite you to contact one of the following managers:

Paige Mairo - Support Team Manager
manager@hwphysio.ca
(343) 574-1788

Danielle Lord - Accounts Manager
accounts@hwphysio.ca
(613) 720-1788

Ryan Morrison - Director of Sport Science
ryan@sportsciencecanada.com
(613) 974 - 1788

3 OTTAWA LOCATIONS

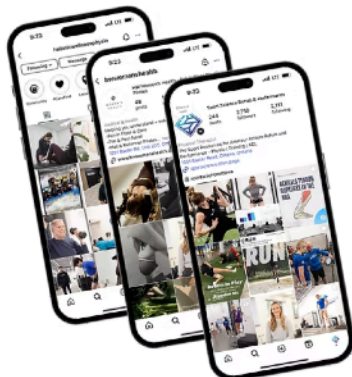
HEALTH | BARRHAVEN
34 Highbury Park Drive | (613) 720-1788 | info@hwphysio.ca



HEALTH | NEPEAN
1051 Daxter Rd | (343) 574-1788 | info@hwhealth.com




HEALTH | ORLEANS
110 P'tee D'Orleans Dr. | (613) 974-1788 | orleans@hwphysio.ca



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