

# 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:**

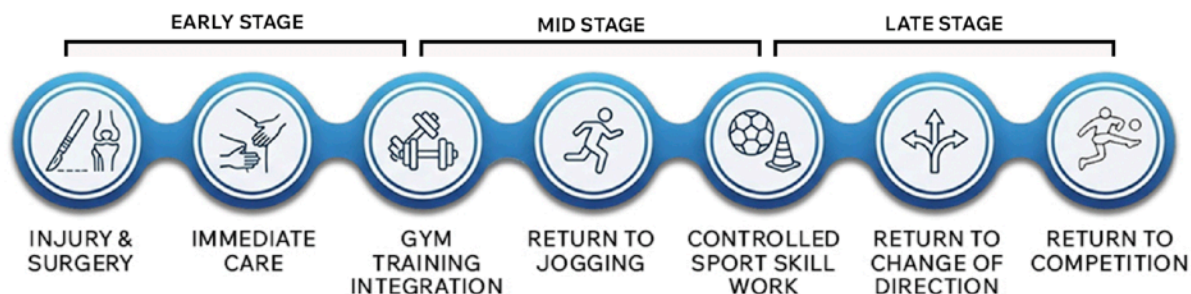
We are committed to utilizing the latest technology and equipment to ensure you receive the most effective and up-to-date care available. We also prioritize maintaining a well-organized, clean facility and providing professional-level coaching to ensure you are progressing appropriately throughout your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

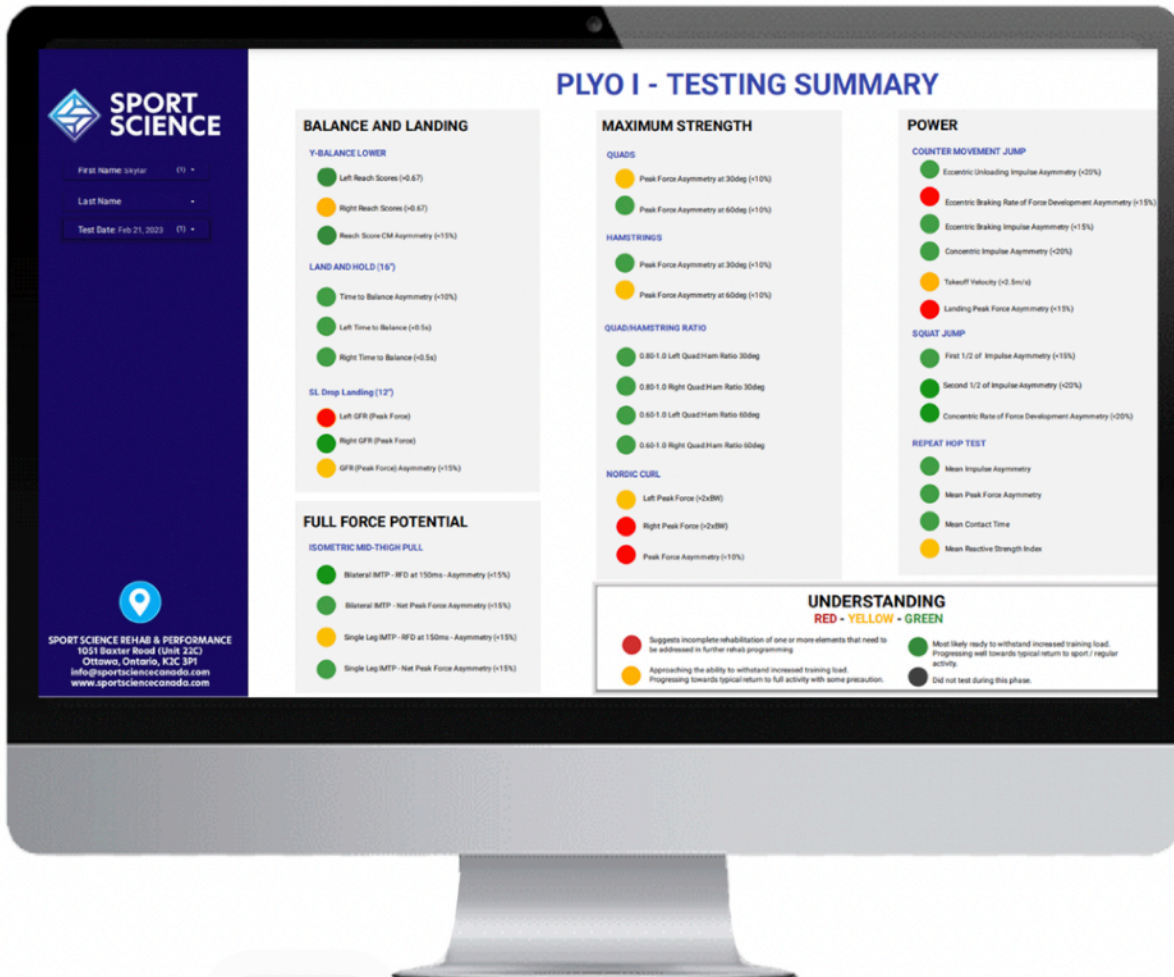
#### Recommended Treatment Frequency

- Physio as needed
- Strength coach 1 x per week

# 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.





**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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April							May							June						
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22	23	24	25	26	27	28	18	19	20	21	22	23	24	22	23	24	25	26	27	28
29	30						25	26	27	28	29	30	31	29	30					

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

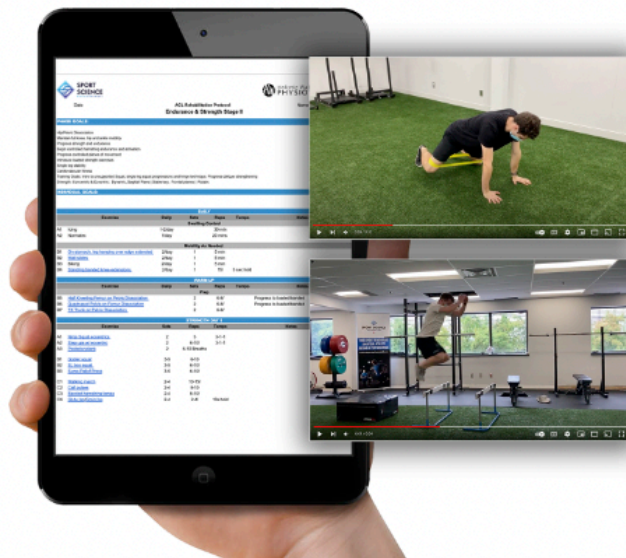
- Skills/Non-Contact Practice Integration
- Contact/Raction/Chaos Integration
- Integration Competiton /Games

## 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.



## 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](mailto:manager@hwphysio.ca)  
(343) 574-1788

**Danielle Lord** - Accounts Manager  
[accounts@hwphysio.ca](mailto:accounts@hwphysio.ca)  
(613) 720-1788

**Ryan Morrison** - Director of Sport Science  
[ryan@sportsciencecanada.com](mailto:ryan@sportsciencecanada.com)  
(613) 974 - 1788

## 3 OTTAWA LOCATIONS

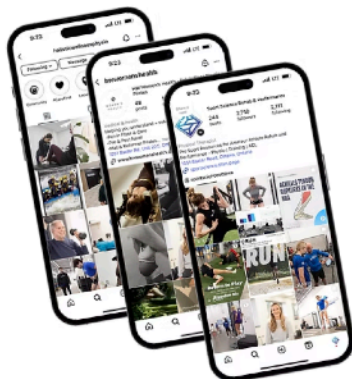
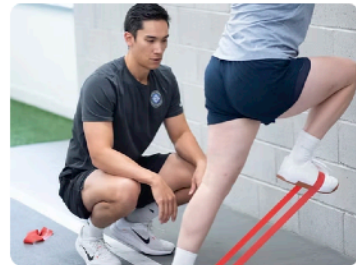
**HEALTH** | BARRHAVEN  
34 Highbury Park Drive | (613) 720-1788 | [info@hwphysio.ca](mailto:info@hwphysio.ca)



**HEALTH** | NEPEAN  
1051 Baxter Rd | (343) 574-1788 | [info@hwhealth.com](mailto:info@hwhealth.com)






**HEALTH** | ORLEANS  
110 Place D'Orleans Dr. | (613) 974-1788 | [orleans@hwphysio.ca](mailto:orleans@hwphysio.ca)



## STAY CONNECTED!

FOLLOW US ON SOCIALS

-  @HOLISTICWELLNESSPHYSIO
-  @HWWOMENSHEALTH
-  @SPORTSCIENCEOTTAWA

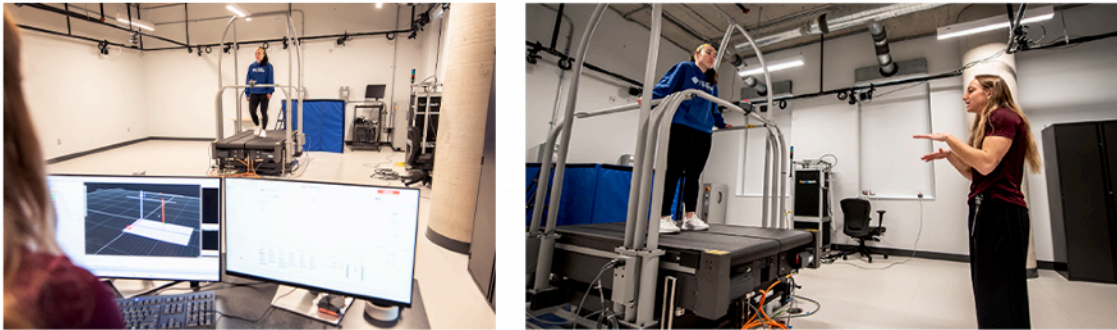
## PARTICIPANTS NEEDED

# ACL RESEARCH PARTNERSHIP

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

### 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. Free first month of Sport Science Supervised Gym Membership



### 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



### 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 (no MCL nor Meniscus)
3. ACL Rehab must be completed in accordance with the Sport Science ACL Rehab Protocols



**FOR MORE INFORMATION OR TO VOLUNTEER**

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phone: (343) 574-1788