

Jointli



Jointli ACL Non-Surgical Return to Sport Guide

A progressive rehabilitation and reconditioning process to regain physical capability, increase resilience and enhance sport-specific performance.

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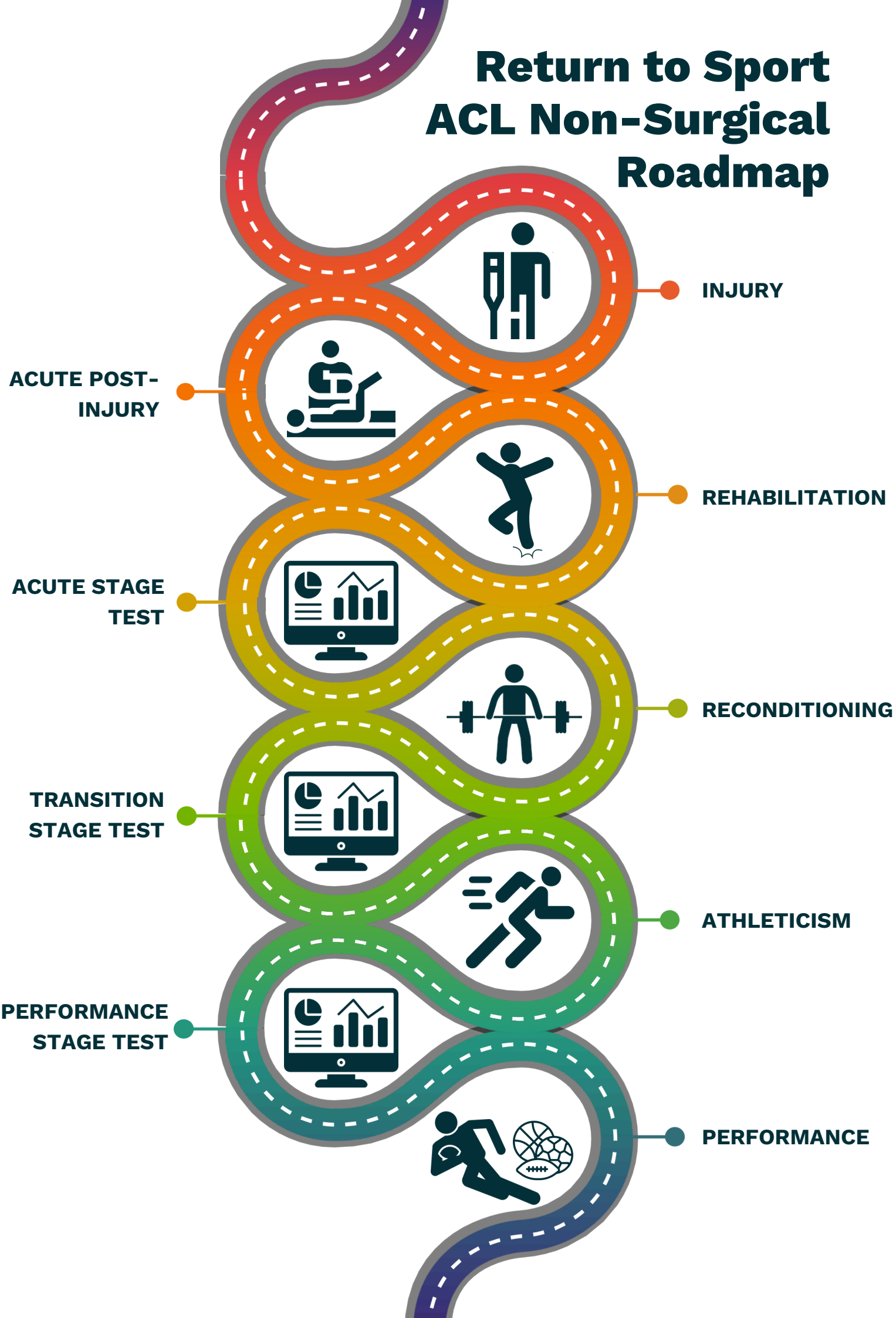
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Return to Sport ACL Non-Surgical Roadmap



ACL Return to Sport Guide

Whether you play competitively or are just involved in social and recreational sport, facing the uncertainty of rehabilitation after rupturing your ACL can be overwhelming. Having clarity on the process from the start improves the likelihood of a successful return to sport (RTS). This guide was developed to provide an overview of the non-surgical management following ACL injury by defining a range of milestones to help you navigate along your journey with clear direction and purpose.

Our tailored program will help you regain physical capability, enhance sport-specific performance, and increase resilience and confidence. Compliance and adherence are of utmost importance for a successful outcome, as returning to previous level of performance following ACL injury requires dedication and effort. We are here to be your guide along this process by providing gold-standard rehabilitation and training, and ensure motivation, accountability and enjoyment levels remain high.

Routine objective measures are of significant help for you and the orthopaedic and rehab special. n conjunction with the Knee Institute and the Sydney Orthopaedic Research Institute, Jointli has developed a battery of tests measuring clinically relevant factors associated with good function and successful return to sport.

Jointli ACL NON-OP protocol is organised in 5 stages, each defined by a range of recommended activities, desired goals, and progression criteria.

- Acute Post-Injury
- Rehabilitation
- Reconditioning
- Athleticism
- Performance

ACL Rehab: Goal Oriented Approach



STAGE:

1.

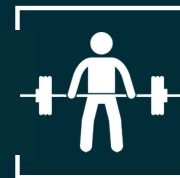
HEAL AND ACTIVATE



STAGE:

2.

REGAIN CAPABILITY



STAGE:

3.

REGAIN FUNCTIONALITY



STAGE:

4.

REGAIN COMPETENCE



STAGE:

5.

RETURN TO EXCEL

Acute Post-Surgery

Heal and activate

After your ACL injury, the focus is to recover from the acute trauma and to achieve a 'quiet' knee. The knee will respond best to movement, in conjunction with your prescribed pain relief strategy. Re-activating the muscles early is vital to reduce swelling and re-establish confidence with weight bearing and walking. The most important focus is to regain full knee straightening.

Focus Goals:

- Decrease swelling and manage pain effectively
- Regain full knee extension and 90 degrees of flexion
- Establish a comfortable gait pattern and even weight bearing
- Activate the quadriceps muscles to gradually return to daily tasks and avoid muscle atrophy
- Strengthening of calf, hip and trunk muscles

Exercise and Activities:

- Use cooling and compression several times per day to decrease swelling
- Quad muscle activation exercises
- Strength and capacity exercises for calf and trunk muscles
- Start weight shifting exercises and progress to single leg balance exercises.
- Use the stationary bike to assist improving range of motion

Avoid:

- Walking unassisted (without crutches) too early. Use this valuable time to master good gait patterns

Target Outcome Measures:

- Knee range of motion - AROM 0° - 90°
- Swelling – Stroke test 0-1
- Quadricep activation - Straight Leg Raise test 0 (No Lag)



Acute Post-Surgery Stage

HEALING AND ACTIVATION

Important Goals

Eliminate the swelling in your knee



Achieve quality walking with crutches



Regain full knee extension



Rehabilitation

Regain Capability

Exercises now progress to more difficult weight bearing positions with added load. This increase in load can cause episodes of temporary swelling which must be managed before progressing again. Your physiotherapist will help you to build a good understanding of how to interpret pain and swelling during this phase, to ensure you keep progressing in the right direction.

Focus Goals:

- Ongoing management of pain and swelling
- Prioritise maintenance of knee extension and improve knee flexion range of motion
- Quality walking without crutches
- Good balance, muscle activation and control in single leg exercises
- Improve leg strength and quadricep activation
- Minimise loss of muscle mass

Exercises and Activities:

- Continue cooling after your sessions as needed
- Mobility and stretching of quadriceps, hamstrings, and calves
- Progress balance, proprioception, and gait exercises
- Strengthening exercises for the lower limb musculature to increase work capacity and force production
- Load acceptance exercises to improve your movement capabilities
- Trunk strengthening and work capacity
- Stationary bike for metabolic conditioning

Avoid:

- Walking with incorrect patterns

Towards the end of this stage, around the 2 months mark, you will perform Jointli's RTS Test – Acute Stage.

Target Outcome Measures:

- Knee range of motion - AROM 0° - 125°
- Swelling – Stroke test 0-1
- Single Leg Balance test >45s (eyes open) and >9s (eyes closed)
- Single Leg Sit to Stand test at 90° of knee flexion >10

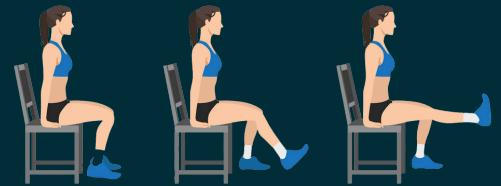


Rehabilitation Stage

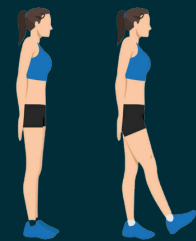
REGAIN CAPABILITY

Important Goals

Improvement of knee extension and knee flexion



Quality walking without crutches



Good balance, muscle activation and control



Reconditioning

Regain Functionality

Reaching this phase, your knee should have full extension and your gait should have no compensatory movements. There is now a significantly increased focus on building strength and improving dynamic control of your knee. Being thorough through this phase is vital to preventing re-injury of the knee and establish quality movement patterns that will shape the rest of the rehab program. You will add load and test the knee with more difficult plyometric drills that will lead to a return to straight line running. Load absorption exercises will be progressed to low impact landing and plyometric exercises to ensure the knee can absorb and produce force without increase in pain or swelling before you can run.

Focus Goals:

- Maintain knee extension and improve flexion range of motion
- Manage increases in swelling post exercise
- Achieve full control during single leg dynamic tasks
- Maximise strength and mass to achieve good limb symmetry
- Develop sound landing capabilities
- Develop good load tolerance in low intensity plyometrics
- Gradually introduce running activities

Exercises and Activities:

- Stretching and mobility
- Cooling as needed to manage swelling and pain
- Progressive landing and plyometric exercises
- Strength training targeting general leg strength and isolated muscles
- Trunk strength and work capacity
- Running-specific motor control exercises
- Continue using the bike for metabolic conditioning until you have reached good load tolerance for running activities

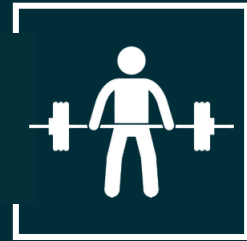
Avoid:

- Running before you have achieved a quiet knee, strong quads and hamstring , as well as single leg hop and landing
- Sudden increases in running volume and intensity

Towards the end of this stage, around the 6 months mark, you will perform Jointli's RTS Test – Transition Stage.

Target Outcome Measures:

- Y-Balance test - Less than 4cm limb difference
- Single Leg Sit to Stand 90° of knee flexion >22 and 90% symmetry
- Quadriceps and hamstrings peak force symmetry >90% and >85% of target benchmarks

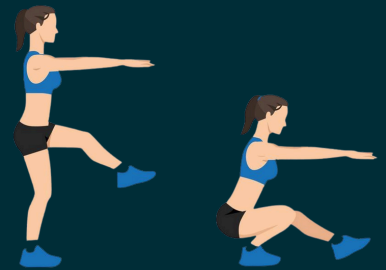


Reconditioning Stage

REGAIN FUNCTIONALITY

Important Goals

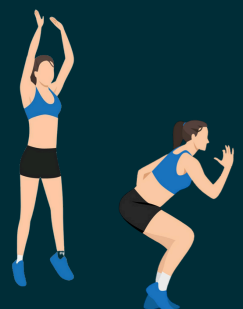
Full control during single leg dynamic tasks



Build strength & mass



Sound landing capabilities



Athleticism

Regain Competence

The work on range of motion, strength and neuromuscular control in the previous phases leads to the return to sport specific strengthening, agility, and conditioning. Your program will be designed to replicate your sporting demands. Most importantly, this phase is about building full confidence in your operated knee (and self as a whole) to run, change direction, jump, hop and play the desired role, without re-injury. You will need to practice good form consistently to reinforce good movement patterns.

Focus Goals:

- Strong and symmetrical quadriceps and hamstrings strength
- Hamstring to Quadriceps strength ratio close to 60%
- Achieve above 90% limb symmetry on hop tests
- Develop agility and complex reactive multidirectional skills
- Rebuild confidence
- Prepare for return to team training

Exercises and Activities:

- Stretching and mobility as required
- Maximal strength and power training
- Sport-specific sprint, agility, and conditioning
- Single leg biased plyometrics

You will perform a range of maximal and submaximal testing that will guide intensity prescription and progressions as part of your training.

Towards the end of this stage, around the 9 months mark, you will perform Jointli's RTS Test – Performance Stage.

Target Outcome Measures:

- Quadriceps and hamstrings strength 100% of target benchmarks
- Hamstring to Quadriceps strength ratio >50%
- Achieve above 90% limb symmetry in all hop tests
- Psychological readiness test at satisfactory levels

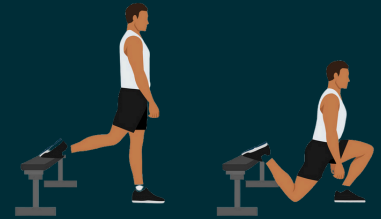


Athleticism Stage

REGAIN COMPETENCE

Important Goals

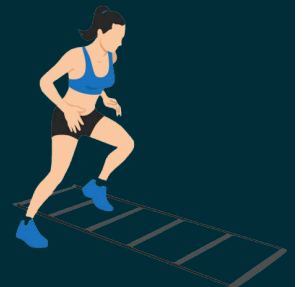
Strong, symmetrical quadriceps and hamstring



Competence and symmetry on hop tests



Agility and reactive multidirectional skills



Performance

Return to excel

Once you have received clearance to return to sport, this phase is all about integration with your training and competition constraints – with the overall goals of maximising sport performance and establishing habits to minimise risk factors.

Focus Goals:

- Safely return to competition
- Maintain physical preparedness and resilience
- Maximise performance
- Create habits that will remain an integral part of your sport activities

Exercises and Activities:

- A tailored strength and conditioning program based on your sport demands, constraints, and needs



Performance Stage

RETURN TO EXCEL

Important Goals

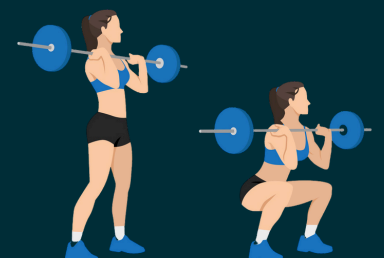
Physical preparedness & resilience



Maximise performance



Create good habits



The logo for Jointli, featuring the word "jointli" in a white, lowercase, sans-serif font. The letters are bold and rounded. The background is a solid teal color with three horizontal, wavy bands of a slightly darker shade of teal.

jointli

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