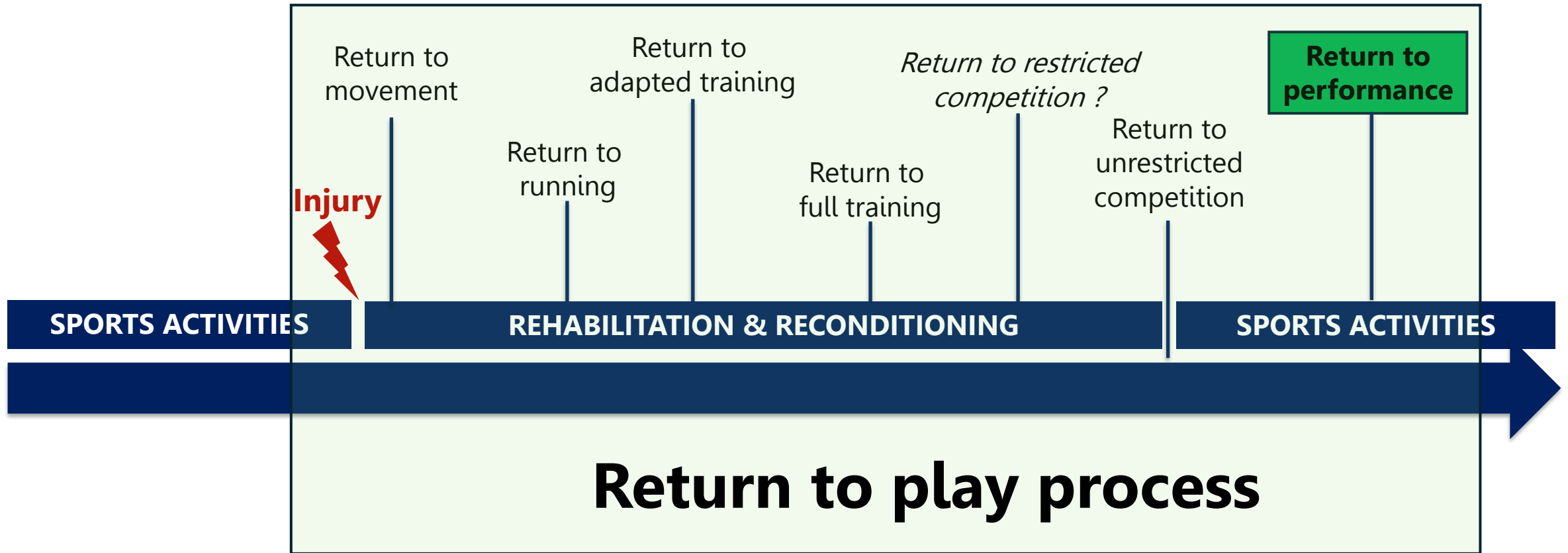


# From injury to return to performance : the athlete's journey

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# Return to play process



2016 Consensus statement on return to sport from the First World Congress in Sports Physical Therapy, Bern

Ardern CL, et al. *Br J Sports Med* 2016;50:853–864.

# Successful or unsuccessful return to performance ?

Full participation at the same level  
& same preinjury performance

**Return to performance**



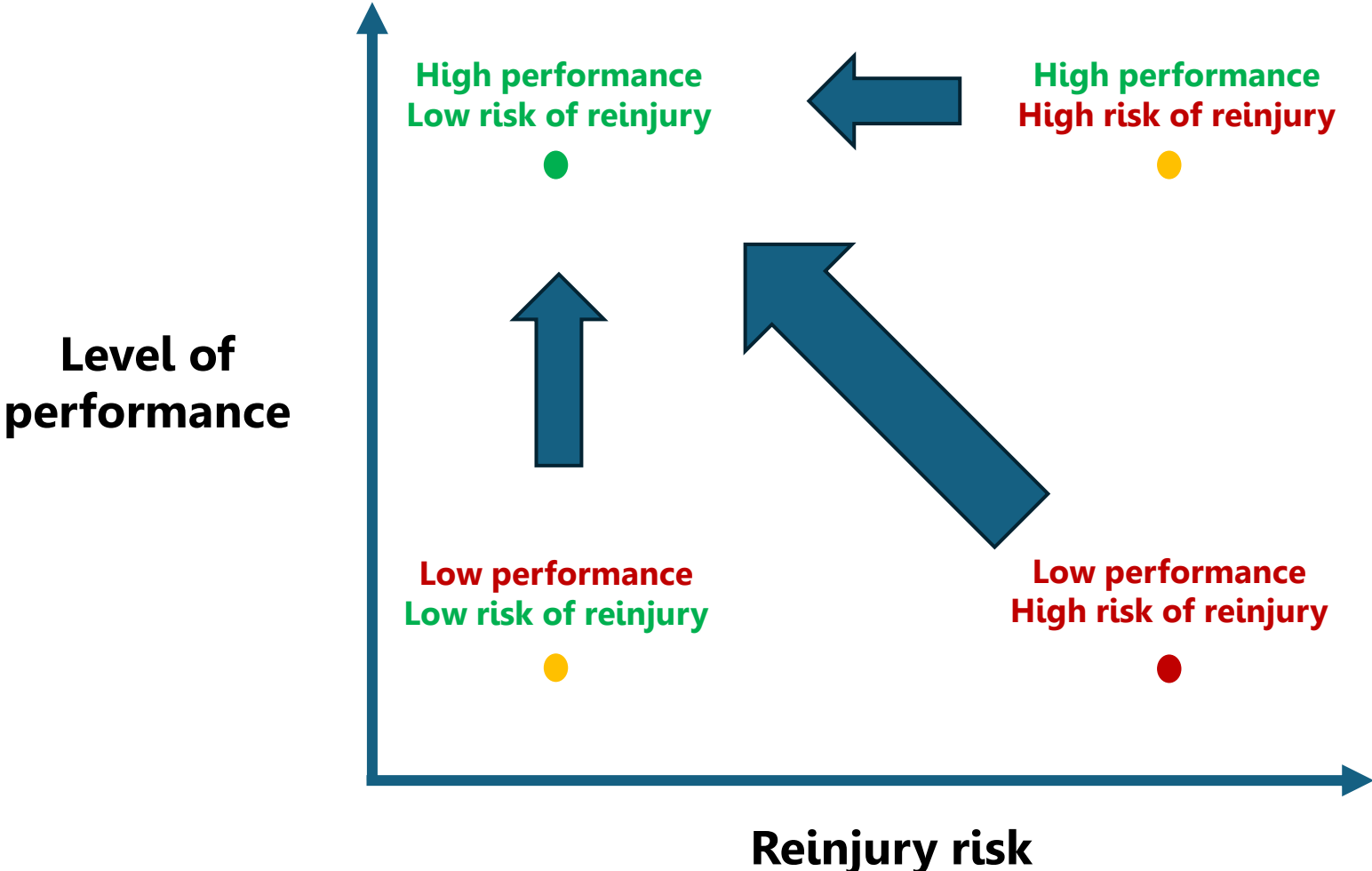
Full participation at the same level  
with reduced performance

Reduced participation and performance  
but playing & training at the same level

**No return to performance**

Reduced level of participation

# Return to performance » « Risk of reinjury



# What are the rates of return to performance ?

Global lack of data about Return to performance

« *Did you return to sport ?* »



« *Did you return to **the same sport on same or higher performance level than prior to the injury ?*** »

**To cite:** Reiman MP,  
Peters S, Sylvain J,  
*et al. Br J Sports Med*  
2018;**52**:972–981.

## Global lack of data about Return to performance

High or low return to sport rates following hip arthroscopy is a matter of definition?

To cite Wörner T, Thorborg K, Stålmán A, *et al.*  
*Br J Sports Med* 2018;**52**:1475–1476.

**89 % of patients returned to sport**

**But...**

**Only 21% of patients returned to the same sport at same/higher level**

# Illustration of RTPerf rates with ACL injuries

**Return to badminton play following an ACL injury is common, but only a few return to previous performance**

**Conclusion:** Return to badminton was achieved by 396 (63%), but only 117 (19%) returned to the same performance as their preinjury level after ACL injury. Females are less successful in RTS and RTP. Future research on

Kaldau et al, KSSTA 2024

**Anterior cruciate ligament injuries in elite badminton athletes: 84% Return to sport, half return to performance**

Tan et al, KSSTA 2024

**Reduced performance after return to competition in ACL injuries: an analysis on return to competition in the 'ACL registry in German Football'**

seasons after injury, 92 players (36.7%) in semi-professional and 24 (20%) in professionals had to end their career. Keeping the level of play was only possible for 48 (47.5%) of professionals, while only 47 (29.6%) of semi-professionals and 43 (28.1%) of amateurs were able to. Only in professional football, no significant difference could be seen in the played minutes

Szymiski et al, KSSTA 2023

# Patient expectations of primary and revision anterior cruciate ligament reconstruction

Feucht et al, KSSTA 2016

- **100%** of patients expect a normal condition of the knee joint
- **91%** expect returning to performance
- **98%** do not expect early OA



**Patient expectations vs Real life**



# What **unmodifiable** factors influence the return to performance ?

Positive influence	Negative influence
Minor injury severity	Major injury severity
Isolated injury	Multiple injuries
Index injury	Reinjury
Younger age	Older age
Elite level of play	Amateur/recreational level of play
Male athletes	Female athletes

# **What modifiable factors influence the return to performance ?**

- **Quality of surgery & medical care**

# What modifiable factors influence the return to performance ?

- Quality of surgery & medical care
- **Quality of rehabilitation**

PHYSIO NETWORK

## SPORTS REHAB: 4-PHASE PROGRESSION

	Phase 1	Phase 2	Phase 3	Phase 4
Joint Focus	Regain PROM & AROM	Loading through full AROM	End Range Strength, Optimize ROM	Maintenance of End Range ROM
Neurological Focus	Graded motor output, activation	Proprioception, Stability, Control	Reactivity, Elasticity	Maximal Recruitment
Strength Focus	Voluntary muscle activation	Hypertrophy, Cross-Sectional Area	Strength-speed, Reduced fatiguability	Speed-strength, Endurance, Power
Movement Focus	Controlled & predictable	External Stimuli, Organized	Increasing Complexity & Effort	Sport-Specific, Open-ended

# What modifiable factors influence the return to performance ?

- Quality of surgery & medical care
- **Quality of rehabilitation**

**Regular assessments**

**Load management**

**Effective communication**

**Task-oriented rehab**

**Strong therapeutic alliance**

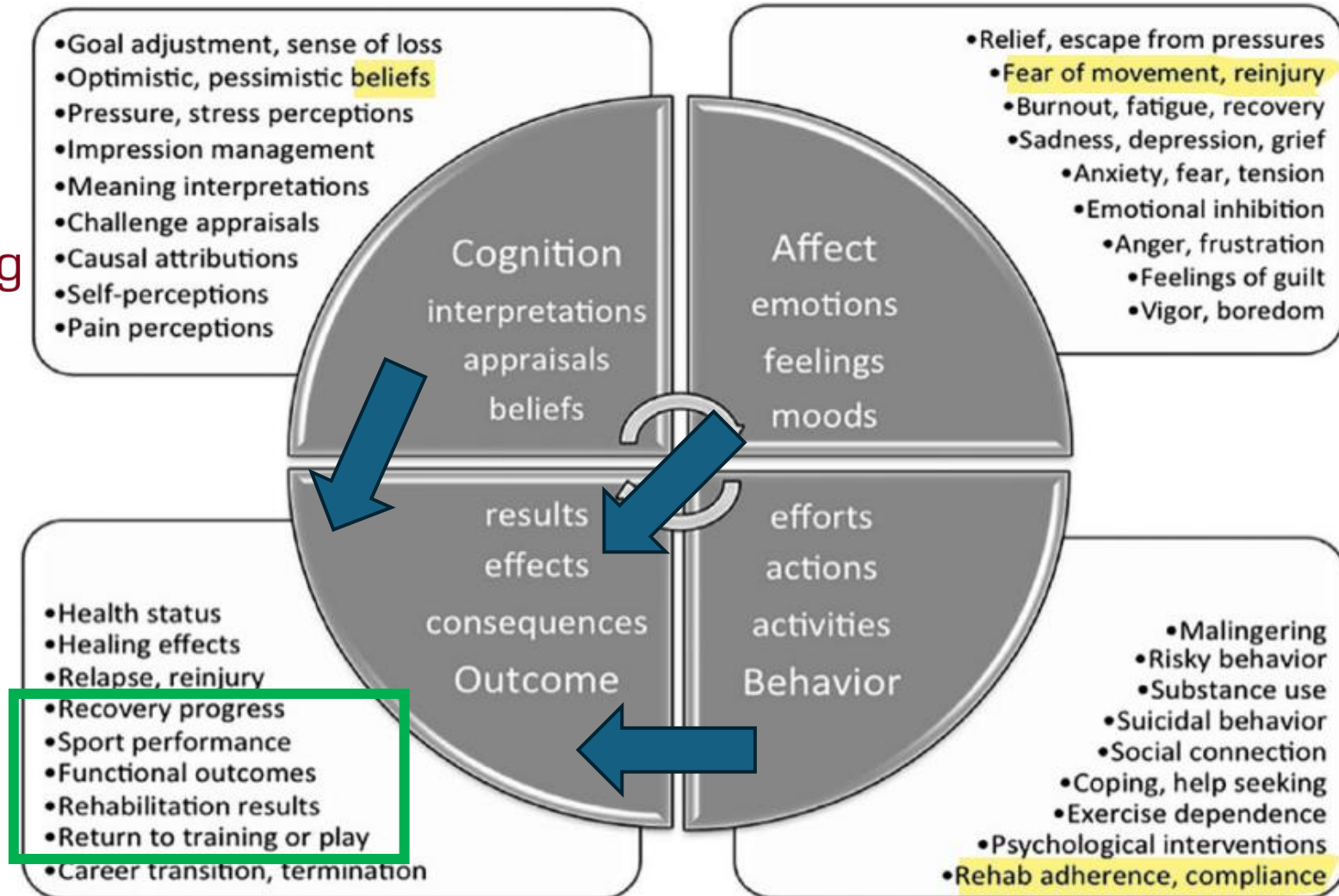
# What modifiable factors influence the return to performance ?

- Quality of surgery & medical care
- Quality of rehabilitation
- **Psychosocial factors**

## Psychosocial Barriers After Anterior Cruciate Ligament Reconstruction: A Clinical Review of Factors Influencing Postoperative Success

model, psychosocial factors related to cognition, affect, behavior, and outcome may have a direct influence on an individual's decision and ability to return to sport after ACLR. Psychosocial influences, such as fear of reinjury, lifestyle changes, occupational demands, loss of motivation, and perceived self-efficacy, all appear to play a role in an individual's recovery and, moreover, their decision of whether or not to return to sport. Acknowledgment of these psychosocial factors allows clinicians to have a better understanding of readiness to return to sport from a

Burland et al., Sports Health 2019



# What modifiable factors influence the return to performance ?

- Quality of surgery & medical care
- Quality of rehabilitation
- Psychosocial factors

## Psychosocial Responses During Different Phases of Sport-Injury Rehabilitation: A Qualitative Study

### Key Points

- Injured athletes' cognitive appraisals and emotional and behavioral responses varied during the different phases of the injury-rehabilitation process.
- Understanding how athletes' psychosocial responses interact during the different phases of rehabilitation can help athletic trainers better understand how an athlete might react during the injury-rehabilitation process.

explained how she felt: “I was injured and I was just really, really upset.”

Beverly indicated that she went through a “week of depression,” and “for a full solid week, I probably cried nonstop.” Candace reported, “I think I became, like, just

explained, “I definitely got frustrated, frustrated when I first started to walk again. I was frustrated that my weight was

# Conclusion

Return to Performance, defined as the **full participation in sport at the same level & same preinjury performance**, remains a challenge for every patient

For **major injuries, potential gaps** may exist **between RTS & RTPerf rates**

**Positive factors for RTPerf** are : **minor/isolated/index injury, younger age, elite level & male sex**

**Quality of surgery/medical/rehab care** is essential, as well as addressing **psychosocial factors**