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What place for ACL Specific Rehabilitation in the face of identified risk factors?

What can be done in Rehabilitation is underlined

Predispositions individual of each athlete before a 1st injury

« Internal » risk factors:
- Age
- Gender (Woman-Man)
- BMI, Weight,% fat
- Intercondylar anatomy
- History of injury, joint instability ...
- Level of activity and sports practice
- Technical stability in movement, sporting gesture
- Psychology (motivation, risk perception, etc.)

Selon Bahr et Krosshaug's, Kyritsis et al., 2015

« External » risk factors:
- Sports factors (coach,…)
- Protection and equipment measures
- Individual equipment
- Weather conditions
- Field conditions, maintenance….

According to Bahr and Krossbaug's

Incentive events:
- Game situation
- Opposition game situation
- Direction changes

Spatial and cognitive disorientation:
Swanik et al., 2007; Baumeister 2013

Neurocognitive situations:
Sensory perception of a new field, new sports environment
Nideffer, 1983

Neuro-muscular predisposition factors:
- Low IJ / Q ratio
- Increased knee abduction moment
- Trunk proprioception deficit
- Increased trunk displacement

According to Stasi et al., 2013

News factors After a 1st ACL injury

Neuro-muscular factors at risk after a first injury:
Edema, persistent inflammation
Weakness of the extensors
Knee instability
Loss of mobility and range of motion in the knees, hips and ankles
Asymmetry of the isokinetic torques of the knee

Stasi et al., 2013

Imbalance between:
Constraints, knee stimulation and rest, recovery

Soligard et al., 2016

Factors / Surgical Imperatives Related to ACL Reconstruction

Risk relating to the graft fixation system (3 ° / 4 ° month)

Return to Sport too quickly

Risk relating to associated injuries and their appropriate management

Neuro-muscular factors at risk after reconstruction:
- Edema, persistent inflammation
- Weakness of the extensors
- Loss of mobility and range of motion, especially in extension
- Asymmetry of the isokinetic torques of the knee and the hip

Stasi et al., 2013

... After a 2nd Injury LCA

Recurring risk factors:
- Asymmetrical / insufficient internal hip rotation moment
- Knee valgus increased
- Asymmetric knee rotation moments
- Loss of body stability, specifically upper body control

« Internal » risk factors:
- Age (6 to 19 years old) - 10% of force on the injured leg and 12% on the contralateral leg increases the risk
  Wiggins et al., 2015
- Presence of a meniscal lesion significantly increases the risk OA Cohen et al., 2007

Cohen et al., 2007

Teen:
- Risk multiplied by a factor of 3 to 6 if sporting return too fast
  Webster et al., 2014
- Increased risk if early return to pivotal sports

Kaeding et al., 2015

Do not minimize ACL Specific Rehabilitation.
Its objective is to allow you to recover all the functionality of your knee by steering between all the identified risks