



Assessment & Exercise for Knee Injury Recovery

**Assessment & Exercise
for Knee Injury Recovery**



Muscle Imbalances Revealed
Assessment & Exercise


with Rick Kaselj, MS

Rick Kaselj - ExercisesForInjuries.com


My Story

Rick Kaselj

- Exercises and injuries
- BSc – 1997
- MS – 2008 / RC
- Work – physio, studio, gym, rec centre, rehab
- Courses – live, webinars, video presentations
- Writing – books, manuals
- Blog – ExercisesForInjuries.com




**Rick Hiking 4300 km / 5 months
from Mexico to Canada**




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Objectives

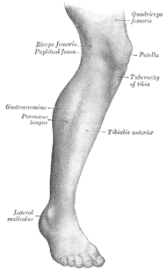


- **Part 1** – Key Structures of the Knee
- **Part 2** – Assessing the Knee
- **Part 3** – Important Knee Injury Recovery Exercises

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Assessment & Exercise for Knee Injury Recovery

Key Structures Involved in the Knee

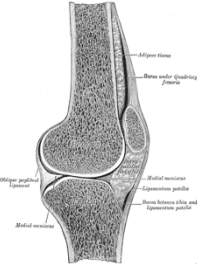


- Overall Structure
 - Leg

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Key Structures Involved in the Knee



- Key Joint
 - Knee
- Key Knee Joint Structures
 - Bones
 - Femur
 - Patella
 - Tibia

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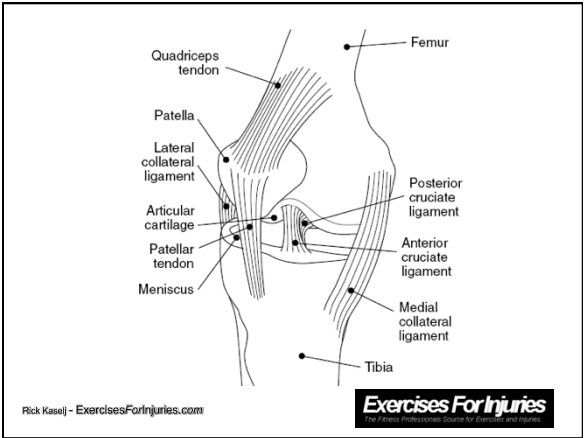
Key Structures Involved in the Knee

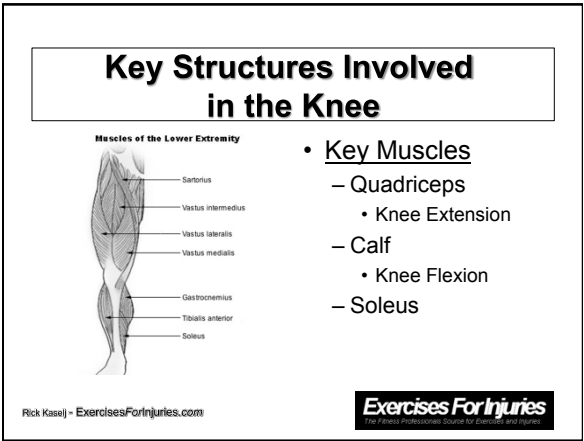
- Key Structures
 - Ligaments
 - Anterior Cruciate Ligament – ACL
 - Posterior Cruciate Ligament – PCL
 - Medial Collateral Ligament – MCL
 - Lateral Collateral Ligament - LCL

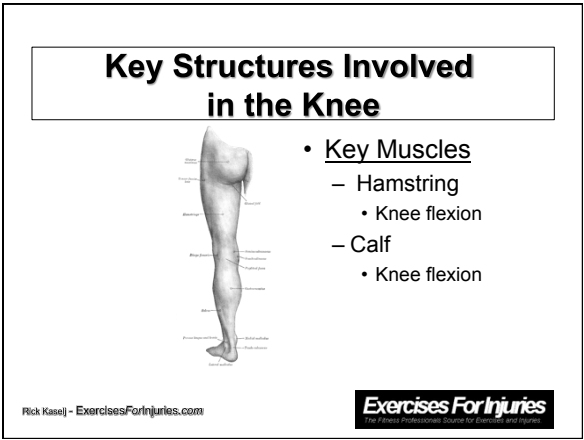
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Assessing the Knee



- Range of Motion
 - Passive
 - Unloaded
 - Partially loaded
 - Fully Loaded
 - Active

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Assessing the Knee



- What is Normal Range of Motion?
 - Extension
 - minus 5 degrees
 - Situation
 - Unloaded
 - Partially loaded
 - Fully Loaded

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Assessing the Knee



- What is Normal Range of Motion?
 - Flexion
 - 140 degrees
 - Situation
 - Unloaded
 - Partially loaded
 - Fully Loaded

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Assessing the Knee

- Why is this important?
 - Walking – 2 to 70 degrees of flexion
 - Loss of greater than 10 degrees of extension will lead to a limp
 - If end range of extension is missing, it put greater strain on muscles and ligaments
 - 93 degrees of flexion to get out of a chair
 - 106 degrees of flexion to tie your shoes
 - 136 degrees to bath

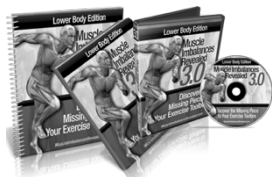
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Where to Get More Information

- Muscle Imbalances Revealed – Lower Body Edition

- Maximizing Strength & Stability of the Knee with Rick Kaselj
- Muscular Imbalances in the Hip & Pelvis with Mike Robertson



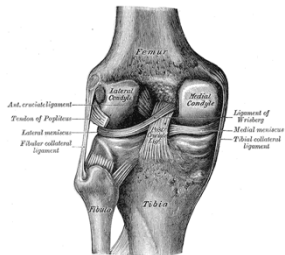
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Assessing the Knee

- Lack of Extension?

- Affects the **“Screw Home Mechanism”** of the knee
 - Last little bit of extension
 - Purpose is to reduce quadriceps work during standing and put load on cartilage, menisci and bones
- You try it




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Assessing the Knee

- Assessing Extension
 - Bilateral Calf Raise (24)




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Assessing the Knee

- Assessing Extension
 - Unilateral Calf Raise (25)




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Assessing the Knee

- Assessing Flexion
 - Knee Flexion on Stomach (13)



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Assessing the Knee

- Assessing Flexion
 - Finger Squat (22)

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Important Knee Injury Recovery Exercises

- Components
 1. Warm up
 2. Range of Motion - passive and active
 3. Stretching
 4. SMR
 5. Balance
 6. Strength
 7. Squatting Pattern



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Important Knee Injury Recovery Exercises

- Components
 8. Lunging Pattern
 9. Stepping Pattern
 10. Gluteus Medius
 11. Neuromuscular Re-education
 12. Core Stability
 13. Activity Specific



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Where to Get More Information

- **Knee Injury Solution**
 - Neuromuscular Re-education
 - KneeInjuryExercises.com




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Important Knee Injury Recovery Exercises

- **Terminal Knee Extension - TKE**
 - Quad Kicks on Floor (349)
 - Terminal Knee Extension on the Floor (351)
 - 1 set of 5 repetitions
 - Daily
 - 2 to 3 times a day




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Important Knee Injury Recovery Exercises

- **TKE**
 - Terminal Knee Extension on Your Stomach (352)




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Assessment & Exercise for Knee Injury Recovery

Important Knee Injury Recovery Exercises


- **TKE**
 - Terminal Knee Extension on Floor with Heel Elevated (350)
 - Sitting Terminal Knee Extension (359)
 - 1 set of 5 repetitions
 - Daily
 - 2 to 3 times a day



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Important Knee Injury Recovery Exercises


- **TKE**
 - Sitting Leg Extensions (378)



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Important Knee Injury Recovery Exercises

- **TKE**
 - Standing Terminal Knee Extension Non-weight Bearing (353)



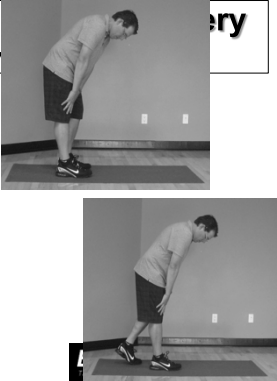
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Important Knee Injury Recovery Exercises

- **TKE**
 - Standing Terminal Knee Extension (354)
 - Standing Terminal Knee Extension Full Weight Bearing (355)
 - 1 set of 5 repetitions
 - Daily
 - 2 to 3 times a day

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Important Knee Injury Recovery Exercises

- **TKE**
 - Standing Terminal Knee Extension Against Tubing (357)
 - Standing Terminal Knee Extension Full Weight Bearing Against Tubing (358)
 - 1 set of 5 repetitions
 - Daily
 - 2 to 3 times a day

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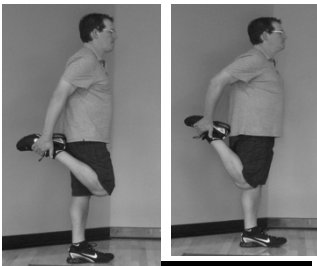





Important Knee Injury Recovery Exercises

- **Terminal Knee Flexion (TKF)**
 - Standing Heel to Seat Knee Forward (367)
 - Standing Heel to Seat Knees Parallel (368)
 - 1 set of 5 repetitions
 - Daily
 - 2 to 3 times a day

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Important Knee Injury Recovery Exercises

- **TKF**
 - Side Lying Heel to Seat Knee Forward (369)

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Important Knee Injury Recovery Exercises

- **TKF**
 - Side Lying Heel to Seat Knees Parallel (370)
 - Knee Flexion on Stomach (13)



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Important Knee Injury Recovery Exercises

- **TKF**
 - Sitting Heel to Seat with Towel (14)

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Important Knee Injury Recovery Exercises

- **TKF**
 - *Supine Knee Flexion (362)*
 - *Supine Knee to Chest for Knee Flexion (363)*




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Important Knee Injury Recovery Exercises

- **TKF**
 - *Single Leg Ball to Seat (284)*



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Important Knee Injury Recovery Exercises

- **TKF**
 - *Ball Squat (299)*
 - *Supine Knee to Deep Squat (371)*



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Other Injuries

- Shin Splints
- Meniscus Tear
- Patellofemoral Pain Syndrome
- Sacroiliac Pain
- Plantar Fasciitis
- Piriformis Syndrome
- Lumbar Fusion
- Achilles Tendinitis
- Jumper's Knee
- Tennis Elbow



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Objectives



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More FREE Information on Exercise & Injuries

- **\$299 Fitness Education**
 - Returning the Shoulder Back to Optimal Function Seminar
 - Exercise Modification for the Sensitive Shoulder Seminar
 - Visit www.ExercisesForInjuries.com

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Thank You

- Send me your questions!
- Rick Kaselj
 - support@ExercisesForInjuries.com
 - www.ExercisesForInjuries.com

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