Common Knee Injuries

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# Type Of Injuries

<table>
<thead>
<tr>
<th></th>
<th>Acute</th>
<th>Overuse</th>
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<tbody>
<tr>
<td>Mechanism</td>
<td>Result of a single, traumatic event</td>
<td>Result of micro-trauma to tendons, bones and joints</td>
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<td>Examples</td>
<td>Knee sprain, Achilles tendon rupture, femur fracture</td>
<td>Patella tendonitis, shin splints, runners knee</td>
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Note: adapted from “NFL Back to Sport” American Heart Association, [www.heart.org/BacktoSports](http://www.heart.org/BacktoSports)
Overuse Injuries of the Knee

- Patella Tendonitis
- Patella Femoral Pain Syndrome
- IT Band Syndrome
- Muscle Strains
Patella Tendonitis

**Mechanism**
- Repeated stress on tendon
- Micro-tears in the tendon can cause inflammation in surrounding tissue
- “Jumpers Knee”

**Signs/Symptoms**
- Pain between the patella and tibia
- Inflammation of the area
- Tightness in the knee and quadriceps muscle
Patellofemoral Pain Syndrome

Mechanism

- Frequent physical activity places stress on knee
- Degeneration of cartilage on posterior side of knee cap
- “Runners Knee”

Sign/Symptoms

- Stiffness with prolonged sitting
- Pain with stairs, running, and after activity
- Crepitus
- Knee giving out
Iliotibial Band Syndrome

Mechanism
- Friction between ITB and lateral femoral epicondyle
- Common in middle- and long-distance runners
- Predisposing factors: leg-length discrepancy, increased Q-angle, genu valgus, foot pronation

Signs/Symptoms
- Pain along ITB (outside of knee)
- Increased pain with walk or running (down hill)
- Inflammation, crepitus
Iliotibial Band Syndrome
Muscle Strain

Mechanism

- High-speed activities like sprinting or sudden changes in muscle activity
- Intense stress can cause an over-stretch or tears

Signs/Symptoms

- Acute, localized pain
- Pain with use and stretching of the muscle
- Ecchymosis – bruising/discholoration of area (grade II strain)
Overuse Injury Treatment

- **Reduce inflammation – PRICE**
  - Protect, Rest, Ice, Compression, Elevation

- **Seek Orthopedic/Health Care Professional for evaluation**
  - If symptoms persist

- **Physical Therapy**
  - Range of motion exercises
  - Strengthening exercises
Overuse Injury Treatment

Treatment progression based on severity of symptoms


- **Identification and modification** of internal (strength/mobility) and external (training volume/frequency) factors causing the pain

- Correct or adjust predisposing factors
Thank You!

SORE KNEE, HUH?
HAVE YOU TRIED
ICING IT?
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References

- National Athletic Training Association, Back to Sport, NFL, American Heart Association, heart.org/backtosport
- Knee Cartoon [Image] Coverly, Dave Speedbump.com; 2016
- ITB Knee [Image] Hospital for Special Surgery
- Patellofemoral Pain Syndrome [Image] physionow.ca