Prevention of Exercise-Related Injuries

Risk of Injury to Body

- 60% of running injuries are to the foot and knee
- Factors associated with running injuries
  - Improper training techniques
  - Inadequate shoes
  - Alignment abnormalities in the legs and feet

Factors associated with running injuries
Common Injuries

- Back Pain
  - Example: Sciatica

What Might Lead to Back Pain?

<table>
<thead>
<tr>
<th>TABLE 13.1 Risk Factors for Back Pain</th>
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</thead>
<tbody>
<tr>
<td>In most cases, back pain is preventable. A knowledge of the following factors, which lead to a higher-than-normal risk of recurring back pain, may help in alleviating back pain or preventing future back problems.</td>
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<tr>
<td>Poor posture</td>
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<td>Improper lifting of heavy loads</td>
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<td>Frequent bending from the waist</td>
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<td>Weak lower back muscles</td>
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<td>Being overweight</td>
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<td>Lack of flexibility in lower back</td>
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<td>Lack of flexibility in hamstring muscles</td>
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<td>Quick, jerking movements of the spine</td>
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<td>Osteoporosis</td>
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<td>Increasing age</td>
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</tbody>
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More Common Injuries

- Acute muscle soreness - pain during or immediately following an exercise session
- Delayed-onset muscle soreness – condition that develops 24 to 48 hours after an exercise session
- Tendonitis – inflammation of a tendon
Muscle strains – damage to a muscle in different degrees

Ligament sprains – damage to a ligament

Common Injuries (continued)
- Torn cartilage
- Patella-femoral pain – "runners knee"
Shin splints

Generic term for injuries of lower leg

Stress fractures – tiny cracks or breaks in the bone

Treatment – surgical shoe
Reducing The Risk of Exercise-Induced Injuries

- Strengthen muscles
- Warm-up and cool-down
- Use proper equipment
- Do not over train
- Allow adequate recovery

What if You Are Injured?

- Initial treatment
  - R. I. C. E.
- Rehabilitation
  - Cryokinetics

Cryokinetics for injury rehabilitation
Summary

- Risk of injury
  - Factors associated with running injuries
- Common injuries
  - Back pain, acute muscle soreness, delayed-onset muscle soreness, strains, ligament sprains, torn cartilage, patella-femoral pain, shin splints, stress fractures
- Reducing injury risk
  - Strengthen muscles, warm-up and cool-down, use proper equipment, do not over train, allow adequate recovery