

Total Care for the Athlete at Heart June 23, 2013

Injury Avoidance and Pain Management
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Warm Up

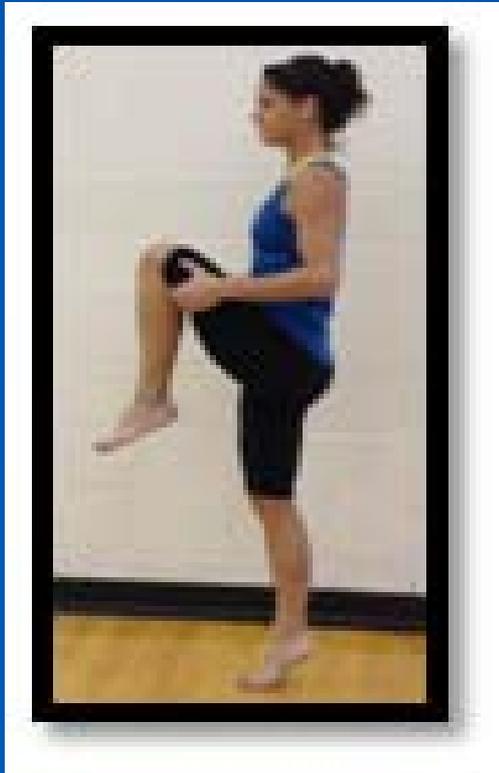
- Prepares your body for exercise by increasing heart rate and blood flow to working muscles.
- Start slow and easy
- Can be walking, jogging, biking or light simulated activity specific to the sport.
- Goal to break a sweat
- 5-10 minutes



Flexibility

- Muscles are more elastic and ready to be stretched
- Can be static or dynamic (not ballistic!)
- Prepares muscles, tendons and joints by allowing them to move freely through full ROM

Dynamic Stretch-High Knees



Static Stretch-Hamstrings





Cool Down

- Done after the activity
- Brings your body back to a normal state
- 5-10 minutes of low intensity cardiovascular activity
- Follow with stretching
- Decreases muscle soreness and aids in recovery

Exercise Progression

- Start slow
- Increase intensity once work out becomes easy by no more than 5-10%
- Strength Exercise
 - Start moving through ROM that you can control
 - Choose a number of repetitions that you can perform without compensation
 - Add either Reps or Sets, but not both



Safety Considerations

- Exercise at an appropriate level
- Compete at your level
- Use proper safety equipment
- Make sure your equipment is fitting properly
- Learn proper technique and form



No pain no gain?

- Don't ignore pain
- Modify activity
- Take a day off
- Cross-train
- Decrease intensity of work out
- Vary your activity

Recovery

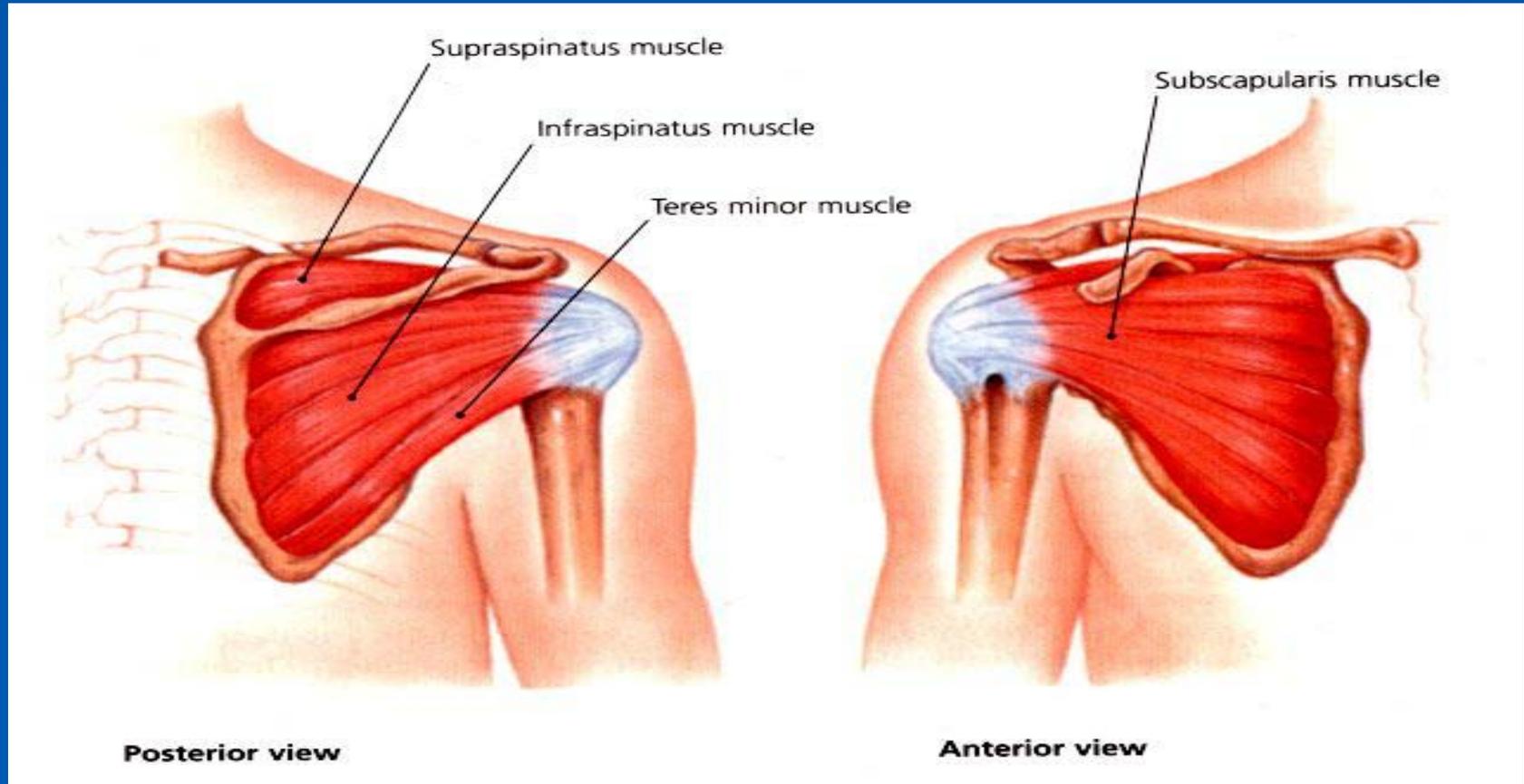
- Rest 1-2 times per week.
- May need to take rest breaks during the workout
- Maintain a healthy well-balanced diet
- Maintain hydration throughout the day, during and after workout
- Proper cool down
- Foam roll
- Active Recovery (easy low impact aerobic exercise in cool down phase)



Common Overuse Injuries

- Rotator Cuff tendinopathy/impingement
- Anterior Knee Pain
- Shin Splints
- Plantar fasciitis

Preventing Shoulder Injuries





Shoulder Injury Prevention Concepts

- Keeping shoulders strong and healthy
- Keep movements in the pain free range.
- Fall prevention
- Avoid repetitive trauma
- Maintain good posture
- Good technique

Shoulder strengthening

Swimmer's exercise (4 movements combined)

1. Lie face down on a bench, table or corner of a bed. Neck in good alignment.
 - Pinch shoulder blades together lifting elbows toward ceiling.



Swimmer's exercise (2nd movement)

2. Externally rotate your arms “stick up” position.



Swimmer's Exercise (3rd position)

3. Extend your arms overhead “goal position”

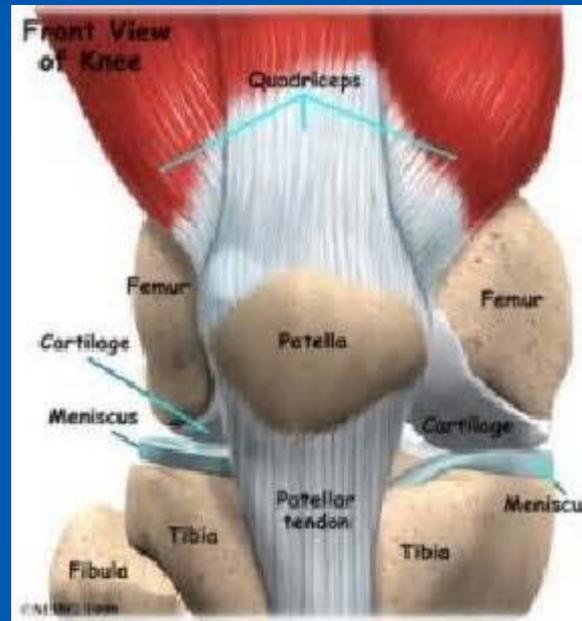


Swimmer's Exercise (4th position)

4. Hands behind head.
 - Reverse the four movements back to starting position. Stay in pain free range and perform up to 3 sets of 10 repetitions.



Anterior Knee Pain



Anterior Knee Pain

- Common knee problem
- Pain under and around your knee cap.
- The pain can get worse when you're active or when you sit for a long time.
- You can have the pain in one or both knees

Anterior Knee Pain-Causes

- Malalignment of the kneecap causing poor tracking.
- Tightness, imbalance, or weakness of thigh muscles
- Flat feet
- May have a history of subluxation or dislocation
- Injury



Anterior Knee Pain-Prevention

- Keeping your hips and thigh muscles flexible
- Strengthen your hips, thighs, and core
- Avoid Overtraining-10% rule!
- Proper shoe fit
- Seek proper consultation

IT Band Stretch



Shin Splints





Exercised Induced Leg Pain - Causes

- Muscle Strain
- Tendinopathy
- Medial Tibial Stress Syndrome
- Tibial Stress Fracture
- Chronic Compartment Syndrome



Exercise Induced Leg Pain Prevention

- Avoid overtraining and sudden training changes
- Good warm-up, cool-down and flexibility routine
- Vary training
- Proper foot support
- Listen to your pain! Seek medical attention.

Plantar fasciitis





Plantar fasciitis

- Heel pain
- Inflammation develops when tears occur in the tissue.
- Morning pain
- Pain decreases as the tissue warms up



Causes

- Overloading and over training
- Incorrect shoes
- Poor foot mechanics

Injury Prevention and treatment

- Avoid overtraining
- Observe good warm up, flexibility and cool down
- Good foot support (orthotics, night splints, proper footwear)
- Weight control

Gastroc/Soleus Stretch



Gastroc/Plantarfascia stretch



Spotting an Overuse Injury

- Stage I: Pain after activity, no functional impairment.
- Stage II: Pain during and after activity with minimal functional impairment
- Stage III: Pain during and after activity that persists throughout the day, significant functional impairment.
- Stage IV: Significant functional impairment with all daily activities.

Pain Management-PRICE

- Protection
- Rest
- Ice
- Compression
- Elevation





Protection





Seek Medical Advice

- Physician consultation
- Physical Therapy
- Occupational Therapy



Use Your Common Sense!