Progressing at Your Pace

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Run Farther & Faster

www.runfartherandfaster.com
Run Healthy & Strong

• Biomechanics
• Shoes and Gear
• Training Progression
• Nutrition and Hydration
• Strength and Stretching
• Running Injuries
  – Overview
  – Common Injuries
  – Treatment
• Fitting It In
Biomechanics

- **Running Cadence** - number of footfalls per minute
  - Ideal cadence around 180 footfalls per minute
  - Work on gradually increasing cadence by turning feet over faster - does NOT mean running faster

- **Key form pointers**:
  - Run with slight forward lean
  - Land on mid-foot
  - Land with feet under knees/center of gravity

- **Breathing**

- **Stride-Outs**
  - Perform at the end of a moderate run
  - Speed up to 95% of max for 20 seconds
  - Focus on maintaining good form
Running Shoes and Gear

• **Shoes:**
  – Get fit at a specialty running store (RNJ Sports)
  – Trained staff will watch you run and select proper shoe for biomechanics (Stability, Cushion)
  – Replace shoes every ~300 miles
  – Natural/“Barefoot”/Minimalist Running Shoes- transition very gradually!

• **Other helpful running gear**
  – Technical fabrics
  – Watch/GPS
  – Summer gear
  – Hydration system
Training Progression

• Beginners: Start with run/walk intervals
• Do not add more than 10% time/distance per week
• During base-building phase, runs should be at conversational pace
• “Long run” should be no more than 30-40% of weekly mileage
• Spread runs out over the course of the week
• Adhere to hard/easy cycle, with days of easy running or rest following days of harder effort
• Incorporate Strength and Cross-Training
• Recovery days as important as workouts- SLEEP
Strength and Stretching

- Most running injuries result from weakness or strength imbalance in hips and/or core
- Incorporate strength training 2-3 times per week, 15-20 minutes per session:
  - Lunges
  - Squats
  - Planks
  - Single Leg exercises
- Do strength training on non-running days or after running, not before
- Stretch when muscles are warm
- Use foam roller to get deeper stretch
- Mobility
Nutrition and Hydration

• Good nutrition is key to performance and recovery
• Focus on whole foods to fuel workouts
• Hydrate before, during and after exercise! Urine should be “clear and copious”
• Pre-Run-
  – 1-2 hours before exercise if possible
• During run-
  – Use nutrition on runs longer than 1.5-2 hours (100-200 calories/hour)
• Post-Run-
  – Complex carbohydrates restock glycogen stores and lean protein helps rebuild muscle
  – Protein to rebuild muscle and aid in recovery
• Limit use of alcohol and energy drinks
Running Injuries - Overview

• At least 70% of all running injuries are due to training errors - PREVENTIBLE!
  – The Terrible Toos: Too much, too soon, too fast
  – Know the signs of injury and what to do

• Expected Soreness vs. Pain:
  – Expected Soreness:
    • Lasts less than 48 hours
    • No redness or swelling
    • Symptoms generalized
    • No change in your walking or running pattern
  – Pain:
    • Lasts more than 48 hours
    • Redness, swelling
    • Limping; running form has changed
    • More localized

• Palm/Pointer Test
### Common Running Injuries

<table>
<thead>
<tr>
<th>Injury</th>
<th>Symptoms</th>
<th>Suggested Treatment</th>
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<tbody>
<tr>
<td>Shin splints</td>
<td>• Usually occurs at the beginning of a training program</td>
<td>• Avoid running on hard surfaces</td>
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<td></td>
<td>• Pain along inner or front of lower leg</td>
<td>• Check your shoes to make sure they are not worn down</td>
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<td></td>
<td>• Tender to touch</td>
<td>• Stretch your lower leg muscles</td>
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<tr>
<td></td>
<td>• Possible swelling</td>
<td>• ICE! Recommend ice bath for 10 minutes</td>
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<tr>
<td>Plantarfasciitis</td>
<td>• Pain on bottom of foot/heel</td>
<td>• Self- massage area (fingers, golf ball)</td>
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<td>• Pain usually worse in the morning</td>
<td>• Check footwear- do you have enough support during the day AND during running?</td>
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<td></td>
<td>• Pain may subside the more you walk, but eventually returns</td>
<td>• Taping techniques and/or temp. arch supports</td>
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<td></td>
<td>• Barefoot walking painful</td>
<td>• Ice: ice bath, roll foot over frozen water bottle</td>
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<tr>
<td>Patello-femoral syndrome</td>
<td>• Pain around or underneath knee cap</td>
<td>• Strengthen leg muscles from hip to foot</td>
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<tr>
<td>(Runner’s knee)</td>
<td>• Possible reports of knee ‘popping’</td>
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<td></td>
<td>• Pain after prolonged sitting</td>
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<td></td>
<td>• Pain going up and down steps</td>
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<tr>
<td>Iliotibial Band (ITB) Tendonitis</td>
<td>• Sharp pain outside of hip or knee</td>
<td>• Strengthen hip muscles</td>
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<tr>
<td></td>
<td>• Mild swelling</td>
<td>• ‘Stretch’/massage ITB gently</td>
</tr>
<tr>
<td></td>
<td>• Pain with steps, sometimes riding bike</td>
<td>• Ice</td>
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<td>• Pain after prolonged sitting</td>
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</table>

Something to think about: if you continue to stretch and massage a muscle, but it remains tight, then stretching and massage are not the answer. What is the answer?
Injury Treatment

- Use ice first 48-72 hours- ice vs heat- which is best?
- Perform hip and core exercises: running specific; single leg ex.; 3-4x/week
- Check your shoes: change every 300 miles or sooner; are they the right type for your feet?
- Modify your training schedule: if you hurt walking, you will hurt running
  - Cross-train painfree for same amount of planned run time
  - Skip long runs, speed workouts, hills x 1 week
  - Rest: Better to take off 2-3 days now instead of 2-3 months later
- Stretch but don’t overdo it
  - Stop at ‘first barrier’
  - Must be painfree
  - Don’t bounce
  - Perform when warm
  - Hold for at least 30 seconds gently
  - Consider making the first 1/2 mile of your run your warm-up: run 45-60 seconds slower than planned pace of run
- If pain persists for more than a week, it is time to seek out a healthcare professional’s advice- Physician, Physical Therapist, Podiatrist