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COMPREHENSIVE PHYSICAL THERAPY

Melinda Amato OTR/L CHT Brandon Heyda OTR/CHT Raymond Ryan PT/Director Valerie Peckingham PT Isabella Mesturini PT,DPT Peter Ives PTA Kirsten Perillo PTA

Megan R. Wolf, MD Sports Medicine/Foot & Ankle

Return to Distance Running

Program

Phase 1 - Intro Walk-Run Interval

Weeks 0 to 2: (anticipate completion by week 2)

- Run 2 to 3 times per week with 24 to 48 hours of rest between running sessions.
 - Patient may continue subsequent sessions as long as they have recovered with no pain or swelling from the previous running session.
- Cross-train/recover with swimming, elliptical or biking between running sessions to build a stronger cardiovascular foundation.
- An active warm-up with light passive stretching should precede each running session.
 - The following is a quick dynamic 10 minute warm-up:
 - Straight leg raise 1x10 times
 - Double bridge 1x10 times
 - Sidelying abduction/adduction 1x10 each
 - Quadruped alternating arm-leg 1x10 times
 - Foam roller on guads and IT band. Massage stick on calf for 3 to 5 minutes.
 - Hamstring, quadriceps, and calf stretch 2x30 seconds
- Run on a soft gravel trail, grass or treadmill. Avoid concrete and asphalt, if possible.
- Evaluate running mechanics for faults or inefficiencies.
- Match shoes with foot structure

Interval running program

- Follow each step for 1 to 2 sessions.
- Advance as pain, swelling and conditioning permits.
- Level 1: 3 minute walk/2 minute run x 15-20 minutes
- Level 2: 3 minute walk/3-4 minute run x 15-20 minutes
- Level 3: 3 minute walk/5 minute run x 20-25 minutes

Post running

- 5 to 10 minute global lower extremity stretch
- o Ice for 15 minutes as pain and swelling dictate
- Continue lower extremity strengthening 1 to 2 times per week to maintain strength.
 - o Ideally strength sessions will follow a run or occur on an alternate day.
 - Try and avoid running after a lower extremity strength training session.

Phase 2 – Progressive Build-up

Week 2 to 4: (anticipate completion by week 4)

- Warm-up/cool-down remains the same
- Continue to follow every other day routine
- Non-impact cross-training between running sessions

Interval running program

- Follow each level for 2 to 3 sessions.
- Advance as pain, swelling and conditioning permits.
- o Level 4: 2 to 3 minute walk/5 to 7 minute run x 20-25 minutes
- Level 5: 2 to 3 minute walk/8 to 10 minute run x 20-25 minutes
- Level 6: 2 to 3 minute walk/10 minute run x 25-30 minutes

Post running

- 5 to 10 minutes global lower extremity stretch
- o Ice for 15 minutes as pain and swelling dictate



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Program

- Continue lower extremity strengthening 1 to 2 times per week to maintain strength.
 - Ideally strength sessions will follow a run or on an alternate day
 - o Try and avoid running after a lower extremity strength training session.

Phase 3 - Continuous Running Build-up

Weeks 4 to 6: (anticipate completion by 6 weeks)

- Warm-up/cool-down remains the same
- Continue to follow every other day routine
- Non-impact cross-training between running sessions

Interval running program

- Follow each level for 2 to 3 sessions.
- Advance as pain, swelling and conditioning permits.
- Level 7: 10 to 12 minute run/2 minute walk x 25-30 minutes
- Level 8: 12 to 15 minute run/2 minute walk x 30-35 minutes
- o Level 9: 15 to 20 minute run/2 minute walk/10 minute run x 25-30 minutes

Post running

- o 5 to 10 minute global lower extremity stretch
- o Ice for 15 minutes as pain and swelling dictate
- Continue lower extremity strengthening 1 to 2 times per week to maintain strength.
 - o Ideally strength sessions will follow a run or on an alternate day
 - o Try and avoid running after a LE strength training session.

Phase 4 – Endurance/performance phase

Weeks 6 to 8: (anticipate completion by 8 weeks +)

- Warm-up/cool-down remains the same
- Continue to follow every other day routine
- May begin to put short 1 to 2 mile runs between longer running sessions.
 - o Ideally, the patient will continue to follow non-impact cross-training days between running sessions.

Interval running program

- Follow each level for 2 to 3 sessions.
- Advance as pain, swelling and conditioning permits.
- Level 10: 3 to 4 miles (walk as needed)
- Level 11: 5 to 6 miles (walk as needed)
- Level 12: 6+ miles

Post running

- o 5 to 10 minute global lower extremity stretch
- o Ice for 15 minutes as pain and swelling dictate
- Continue lower extremity strengthening 1 to 2 times per week to maintain strength.
 - Ideally strength sessions will follow a run or on an alternate day
 - Try and avoid running after a LE strength training session.



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Program

Clinical Pearls (Phase 1 through 4)

Megan R. Wolf, MD

- 1. Non-operative and post-operative patients will progress at different rates through the running program.
 - Degree of inflammation, severity of injury, age and the type of surgical intervention all play a critical role in determining how quickly a patient will progress.
 - o Pain and swelling are the best guides in determining tolerance to a given distance and whether a patient is able to progress to the next level.
- 2. Distance running places a tremendous amount of repetitive load on body; therefore, incremental progression is essential in avoiding major setbacks in terms of pain and swelling.
- 3. Proper warm-up and cool-down is essential for recovery.
- 4. Cross-training is the key to building endurance while allowing adequate recovery.
- 5. Not all runners will progress to level 12, 18 miles/week.
 - o Match realistic goals with pre-injury/surgery fitness levels.
 - o If a patient desires to surpass their pre-injury/surgery running levels, create a well designed program that allows for no more than 10-15% increase in total volume weekly until their goal is achieved.
- 6. Evaluate running mechanics for faults or inefficiencies.
- 7. Evaluate mechanics for proper long-term shoe recommendation (stable/motion control shoe versus less stable/shock absorbing shoe).