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# TIBIAL STRESS FRACTURES REHABILITATION PROTOCOL

## FUNCTIONAL ACTIVITY PROGRESSION

The progression is designed for a ¼ mile track (i.e., 220 yards, half lap; 440 yards, ¼ mile, one lap; 880 yards, ½ mile, two laps; ¾ mile, three laps; 1 mile four laps). If a ¼ mile track is not available, estimate distances as closely as possible.

## STAGE I

1 Walk 1 mile.
2 Walk 330 yards (three-quarter lap), jog 110 yards (one-quarter lap), walk 330 yards, jog 110 yards, walk 330 yards, jog 110 yards, walk 330 yards, jog 110 yards, walk 110 yards.
3 Walk 220 yards, jog 220 yards, walk 220 yards, jog 220 yards, walk 220 yards, jog 220 yards, walk 440 yards.
4 Walk 440 yards, jog 440 yards, walk 440 yards, jog 440 yards, walk 100 yards.
5 Walk 440 yards, jog 880 yards, walk 440 yards.
6 Walk 220 yards, jog ¾ mile, walk 220 yards.
7 Walk 100 yards, jog 1 mile, walk 100 yards.

## STAGE II

1 Jog 330 yards, run 110 yards, jog 330 yards, run 110 yards, jog 330 yards, run 110 yards, jog 330 yards, run 110 yards, jog 110 yards.
2 Jog 220 yards, run 220 yards, jog 220 yards, run 220 yards, jog 220 yards, run 220 yards, jog 440 yards.
3 Jog 440 yards, run 440 yards, jog 440 yards, run 440 yards.
4 Jog 440 yards, run 880 yards, jog 440 yards.
5 Jog 440 yards, run ¾ mile, jog 220 yards.
6 Jog 440 yards, run 1 mile, jog 220 yards.

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**STAGE III – Progression to Sprint Running**

Step 13 may be used as warm-up for "sprint running" to include stretching. Walk for 440 yards, and then complete the sprint running as indicated in Step 14. Complete a cool-down jog for 440 yards. Rest between intervals is completed by walking. Code: 220 (distance) x 2 (repeats) with 3 minutes (rest).

1. Run 50 yards at 50% speed then at 75% for two repetitions and finally at 100% speed for two repetitions taking as much time as needed to rest between intervals.
2. 100 x 2 with 5 minutes.
3. 100 x 4 with 5 minutes
4. 40 x 6 with 3 minutes.
5. 40 x 10 with 2 minutes.

**STAGE IV – Agility Drills**

Agility activities are used for the sports that involve jumping and cutting. Complete a warm up of 1 mile and then initiate agility exercise A. Complete one cycle of each exercise at 50% of full speed and then progress to one cycle at 75% and then one cycle at 100%. If disabling pain occurs stop and proceed as directed in the introduction. Certain people may find they can complete the agility activities within one session. Distance and sprint running are then completed.

A. *Figure-of-8 Running:* Run a figure-of-8 pattern with two 10-foot diameter circles and then with two 5-foot diameter circles. Complete 3 repetitions of each figure-of-8 at 50%, 75%, and 100% effort.
B. *Carioca:* Run sideways crossing legs in front of and then behind the lead leg for 20 yards, rest 5 seconds, and return in other direction. Repeat 4 times for each cycle.
C. *Backward Running:* Run for 20 yards, rest 5 seconds, and repeat 4 times for each cycle.
D. *Box Running:* Select an area and mark out a 5-yard square box for the run. Initiate the run by running the box 5 times clockwise and then 5 times counterclockwise.
E. *Vertical Jumping:* Jump with 50% effort and mark a spot on a wall. Repeat jumping to that mark 10 times. Change the mark to 75% and jump 10 times. Change the mark to 100% and jump 10 times.

**STAGE V – Progression to Practice and Games**

Practice sessions are not initiated until functional rehabilitation is successfully completed. All practice sessions are initiated with a warm-up that includes 1) light running and stretching, 2) gradual increase in speed of full speed running, 3) completion of agility activities with gradual increase in intensity, and 4) gradual increase in speed and intensity of movements specific to sport. After practice, complete a cooldown of running and stretching.