

## **Return to Running Program**

*(Credit for this program goes to Steve Cole, ATC, CSCS, long-time head athletic trainer at William and Mary College)*

### **Phase I: Walking Program**

Must be able to walk, pain free, aggressively (roughly 4.2 to 5.2 miles per hour), preferably on a treadmill, before beginning the plyometric and walk/jog program.

### **Phase II: Plyometric Routine**

A mile run generally consist of 1500 foot contacts, 750 per foot. The program integrates 470 foot contacts per leg, which would be equivalent to two thirds the foot contacts of a mile. Successfully completing the routine is a good indicator of an athlete returning to running a half to three-quarters of a mile distance.

<b>Exercise</b>	<b>Sets</b>	<b>Foot contacts per set</b>	<b>Total foot contacts</b>
Two-leg ankle hops: in place	3	30	90
Two-leg ankle hops: forward/backward	3	30	90
Two-leg ankle hops: side to side	3	30	90
One-leg ankle hops: in place	3	20	60
One-leg ankle hops: forward/backward	3	20	60
One-leg ankle hops: side to side	3	20	60
One-leg leg broad hop	<u>4</u> 22	5	<u>20</u> 470

**Rest Intervals:** Between Sets 90 seconds  
Between Exercises: 3 minutes

Stretch Gastroc, Soleus, Quads and Hamstrings between exercises.

Emphasize toe-heel landing, triple flexion (hip and knee flexion, ankle dorsiflexion), triple extension (hip and knee extension, plantar flexion), and soft landing.

Athletes recovering from a knee, thigh or hip injury should incorporate a greater degree of knee and hip flexion.

If you experience pain or are unable to complete an exercise, stop, stretch and apply ice to the involved area. If you are pain free the next day, attempt to re-start the routine.

### Phase III: Walk/Jog Progression

You may begin this program on level ground if:

1. Completed Phase I and II.
2. You have no pain with normal daily activities. (on a pain scale of 0 to 10, in which 0 is normal and 10 is the worst, you must be at 0) **and**,
3. The injured area no longer hurts when you press on it.

#### Program Progression

- If the jogging hurts, stop, apply ice and return to the previous stage the next day. If pain/discomfort remains or increases, continue to return to a previous level until discomfort stabilizes or decreases.
- If you have no pain when doing this activity level or afterwards, and you have no discomfort or tightness that limits your normal movements the next morning, proceed to the next stage.

	Walk	Jog	Repetitions	Total time
<b>Stage I</b>	5 minutes	1 minute	5 times	30 minutes
<b>Stage II</b>	4 minutes	2 minutes	5 times	30 minutes
<b>Stage III</b>	3 minutes	3 minutes	5 times	30 minutes
<b>Stage IV</b>	2 minutes	4 minutes	5 times	30 minutes
<b>Stage V</b>	Jog every other day with a goal of reaching 30 consecutive minutes, begin with 5 minutes of walking, gradually increasing the pace. End with 5 minutes of walking, gradually decreasing the pace to a comfortable walk.			

#### Pain Management

If you develop swelling in a joint or muscular pain that lasts longer than 72 hours, you have done too much and need to decrease activity (duration and/or intensity) and increase rest between workouts.

Apply moist heat before activity and stretch thoroughly then ice immediately after activity for 15 to 20 minutes.

If you develop tightness during activity, stop and stretch (3 reps for 30 a count each) the affected area then resume activity. If tightness returns, stop and stretch again. If pain develops or after three stretching sessions the tightness remains, stop activity and apply ice to involved area for 20 minutes.

It is important to identify to exact location of your pain. Is it in a constant location or does it “move around” in a general area?

- Constant location: be very cautious, incorporate more rest between exercise sessions, keep the intensity low and exercise on level, soft surfaces.
- “Moves around”: continue with progression, but do not increase the intensity.

It is important to identify when you have pain:

- **Type I:** After activity: stretch affected area well (at least 3 to 5 reps, hold each for at least a 30 count), long, slow, gentle stretch, then ice for 20 minutes. Continue to progress program if discomfort appears to be muscle soreness. If joint pain and/or swelling develops, increase rest between exercise sessions and decrease activity level to previous level.
- **Type II:** During activity, at begin then dissipates: maintain same activity level and low intensity until symptoms dissipate.
- **Type III:** During activity, gradually develops and intensifies with activity: decrease intensity of activity, stop and stretch to relief symptoms, stop activity if those do not relief symptoms. Maintain same activity level; if symptoms continue, decrease activity to previous level.
- **Type IV:** At night, keeps you up or wakes you up: Bad, doing too much; total rest until symptom free, decrease activity to previous level and keep intensity low.
- **Upon waking:** In the morning, upon waking, then dissipates: sign of more to come, decrease activity to previous level and keep intensity low.

It is important to grade the level of pain you have over a period of several days to weeks. Is the pain getting worse, staying the same or gradually dissipating? Use a pain scale of 0 to 10, in which 0 is normal and 10 is the worst.

- Getting worse: need total rest, decrease to previous activity level and decrease intensity of exercise.
- Staying the same: decrease activity level to previous level and maintain until pain decreases.

## **Phase IV: Timed Running Schedule**

### **Program Progression**

- If the jogging hurts, stop, apply ice and return to the previous stage the next day. If pain/discomfort remains or increases, continue to return to a previous level until discomfort stabilizes or decreases.
- If you have no pain when doing this activity level or afterwards, and you have no discomfort or tightness that limits your normal movements the next morning, proceed to the next stage.
- Increase the intensity (how hard/fast) of the jog/run before you increase the duration (how long) of the jog/run.
- When you increase the frequency (how many days per week you jog/run) of the workouts, decrease the duration of the workout.
- When you begin running multiple days in a row, make increases (duration or intensity) on the first day of activity after a day of rest, then decrease the duration of activity to the previous level.
- Ten Percent Rule: Only increase the weekly mileage by 10 % of the previous week.
- If you develop persistent tightness or increased discomfort during activity to a point of dysfunction, stop and note the time of onset of symptoms during the exercise session (during a 30 minute planned exercise session, symptoms develop after 21 minutes). Consider split the duration of activity between 2 workouts with each exercise session shorter than the time of the onset of symptoms during the previous attempt. Example: during a 30 minute planned exercise session, symptoms develop after 24 minutes, then each of the 2 exercise sessions would be 20 minutes long. The exercise sessions should be separated by 6 to 8 hours.
- Try to jog/run on a flat, forgiving surface (ie-golf course, athletic field) before hilly courses or even surfaces.

## Phase IV: Timed Running Schedule-Intermediate

The Intermediate schedule is designed for the runner who is restarting training or recovering from an injury, such as a stress fracture or significant illness, which has kept them “off their feet” or on non-weight bearing activities for 4 weeks or longer.

You may begin this program on level ground if you have completed Phase I, II and III.

Run every other day for eight weeks. Cross train, active rest or total rest on days off.

Estimate a pace between 8 to 9 minutes per mile.

<u>Day</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>Week</u>
Minutes	30	-	30	-	30	-	35	1
	-	30	-	30	-	35	-	2
	35	-	30	-	35	-	35	3
	-	35	-	40	-	35	-	4
	35	-	40	-	40	-	35	5
	-	40	-	40	-	40	-	6
	45	-	40	-	40	-	45	7
	-	45	-	40	-	45	30	8

Run multiple days in a row after 8 weeks.

<u>Day</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>Week</u>
Minutes	-	45	35	-	45	40	-	9
	45	45	-	45	45	30	-	10
	45	45	35	-	45	45	40	11
	-	45	45	45	-	45	45	12

Source: Steven L. Cole, ATC, CSCS

## Phase IV: Timed Running Schedule-Advanced

The Advanced schedule is designed for the runner who is recovering from a soft tissue injury, such as a strained muscle, which has forced them to cross train for least than 4 weeks.

You may begin this program on level ground if you have completed Phase I, II and III.

Run every other day for eight weeks. Cross train, active rest or total rest on days off.

Estimate a pace between 7:30 to 8 minutes per mile.

<u>Day</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>Week</u>
Minutes	30	-	30	30	-	35	30	1
	-	35	35	-	40	35	-	2
	40	40	-	45	40	-	45	3
	45	-	45	40	30	-	45	4
	40	35	-	45	40	40	-	5
	45	45	40	-	45	45	45	6

This activity level at 6 weeks is the same as the activity level at 12 weeks with the Intermediate program and utilizes a higher intensity (faster running pace).

								<u>Week</u>
	-	50	45	40	-	50	45	7
	45	-	50	50	45	-	50	8
	50	50	-	55	50	50	-	9
	55	55	50	-	55	55	55	10
	-	60	55	55	-	60	60	11
	55	-	60	60	60	-	65	12

Source: Steven L. Cole, ATC, CSCS

## Mileage Schedule

Run every other day for two weeks, then a maximum of five days a week for the next four weeks.

If your previous level of training was **less than 4 miles per session**, follow the following mileage schedule:

<u>Day</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>Total</u>
Miles	1/2	0	1/2	0	1/2	0	1	2 1/2
	0	1	0	1	0	2	0	4
	2	1	0	2	2	0	3	10
	2	0	3	3	0	4	3	15
	0	4	4	0	4	4	0	16

If your previous level of training was **4 to 6 miles per session**, follow the following mileage schedule:

<u>Day</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>Total</u>
Miles	1	0	1	0	1	0	2	5
	0	2	0	2	0	3	0	7
	3	2	0	3	3	0	4	15
	3	0	4	4	0	5	4	20
	0	5	5	0	6	5	0	21

Return to previous pre-injury mileage level in 4 to 6 weeks.

If your previous level of training was **40 to 60 miles per week**, follow the following mileage schedule:

<u>Day</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>Total</u>
Miles	2	0	2	0	2	0	3	9
	0	3	0	3	0	4	0	10
	4	3	0	4	4	0	5	20
	4	0	5	5	0	6	5	25
	0	6	6	0	7	6	6	31
	0	7	7	8	7	0	9	38

Return to previous pre-injury mileage level in 4 to 6 weeks.

Source: Dan Kulund, MD