

The Miriam Hospital  
*A Lifespan Partner*



Commit to  
~~Quit:~~

Exercise  
Protocol

SAMPLE

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## Commit to Quit Exercise Training Protocol

The exercise-training program is a 12-week program that begins 3 weeks before the quit date of the smoking cessation treatment. This permits participants to gradually adjust to the physical demands of the exercise program before significantly changing their smoking behavior.

The exercise prescription is calculated using the Karvonen (heart rate reserve) method using the peak heart rate achieved on the baseline exercise stress test. The heart rate range of 60-85% is used which also corresponds to a training intensity of approximately 60-85% of functional capacity which is considered vigorous exercise. The Karvonen method may yield a more accurate exercise prescription among smokers because their resting heart rates are higher than those of non-smokers. The Karvonen method takes a percent of the difference (60-85%) between the maximal and resting heart rates (heart rate range or reserve). The standing resting heart rate was used to perform the calculation. In a healthy person and in the absence of an exercise stress test, the maximum heart rate can be determined by taking 220-their age.

An example of a training heart rate range for a person with a maximal heart rate of 180 beats per minute and a resting heart rate of 80 beats per minute is as follows:

Target Heart Rate Range		
	Lower Limit	Upper Limit
Maximal heart rate	180	180
Resting heart rate	<u>-80</u>	<u>-80</u>
Heart rate reserve	100	100
Conditioning intensity	<u>x.60</u>	<u>x.85</u>
(60-85% heart rate range)	60	85
Rest heart rate	<u>+80</u>	<u>+80</u>
Target heart rate	140	165

Participants should also be instructed to work at a perceived exertion range of somewhat hard to hard (13-16 on the Borg perceived exertion scale). The exercise intensity and duration should be gradually increased to allow participants a chance to adapt to the exercise and to decrease the chance of injury. The exercise session consists of a 5-minute warm-up; 30-40 minutes of aerobic activity and a 5-minute cool down with stretching. A variety of exercise modes can be used including treadmills, rowers, stationary bikes, recumbent step machines and cross-country ski machines. A stretching handout should be given to each participant.