

# UNDERSTANDING THE PROS OF CARDIAC REHABILITATION

Cardiac rehabilitation is a comprehensive long-term program that involves medical evaluation, exercise prescription, cardiac risk-factor modification and counselling. This comprehensive care is designed to limit the physiologic effects of cardiac illness, reduce the risk of sudden death or reinfarction and stabilize or even reverse the atherosclerotic process. Cardiac rehabilitation is safe and can benefit most patients who suffer from angina, survive a myocardial infarction (MI), undergo revascularization procedures and even patients with heart failure.

In this issue of Perspectives in Cardiology, Dr. Martin Juneau does an excellent job in summarizing which patients can safely participate in supervised or unsupervised exercise programs and what steps need to be followed before starting. He recommends that patients with coronary heart disease be evaluated by a cardiologist, complete a symptom-limited exercise test and receive an exercise prescription by a qualified health professional. Patients at moderate or high risk need to be enrolled in a medically supervised exercise program with the necessary cardiac emergency equipment at hand. Exercise training, as Dr. Juneau points out, is only contraindicated for extremely high-risk patients, including those with severe aortic stenosis and severe left-main coronary disease.



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The basic components of exercise prescription are summarized by Dr. Juneau, including frequency, duration and intensity. Cardiac rehabilitation programs should offer 30- to 60-minute sessions three to five times a week, including warmup and cool-down periods of at least five minutes each. Exercise intensity is generally between 65% and 85% of the symptom-limited maximal heart rate from the exercise test; however, many individuals may need to exercise at a lower intensity, especially in the beginning.

Unfortunately, despite the substantial benefits and limited risks, only a small percentage of eligible patients actually take part in cardiac rehabilitation. Although cost and time are some of the barriers to participation, one of the keys to greater enrollment is physician-patient communication. It is essential that cardiologists, cardio-vascular surgeons, family practitioners and other health professionals emphasize the importance of cardiac rehabilitation for their coronary patients. A cardiac rehabilitation program using a multidisciplinary team of physicians, exercise specialists, nutritionists and psychologists can have a favorable impact on a patient's risk factors, quality of life, morbidity and even mortality. Other coronary-care costs may also be reduced, thereby offsetting the cost of the program.

The final key to a successful cardiac rehabilitation program is follow-up. When one considers how difficult it is to ensure the compliance of patients taking one pill a day, one can imagine how much positive reinforcement a coronary patient needs to maintain his or her "heart-healthy" lifestyle. The benefits of risk-factor modification must be stressed continually and any improvements in simple clinical tests - such as blood cholesterol level, blood pressure and weight - should be communicated to the patient.

Referring patients for cardiac rehabilitation and encouraging patient compliance is an essential component of any effective and cost-effective cardiovascular prevention strategy. Accordingly, the potential benefits of cardiac rehabilitation should be offered to all patients unless medically contraindicated.