

Swimming, rope skipping are highly strenuous

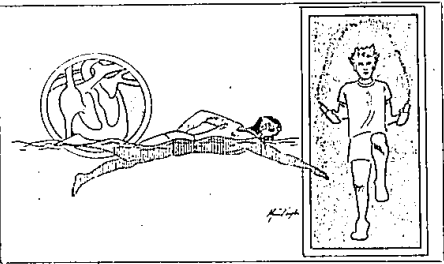
"Which exercise is best for improving physical fitness?" Cardiac patients and persons with low cardiovascular fitness often ask us that.

Exercise programs can employ a variety of physical conditioning activities. But it is important to note activities which might be too strenuous for those persons.

Swimming and skipping rope long have been recognized as excellent cardiovascular conditioners. Recent research, however, tells us these activities impose extremely high energy demands, and regulation of the exercise intensity may be difficult.

SWIMMING, EVEN at comfortable speeds, may require near-maximal expenditures of energy and heart rate.

A recent comparison of various physical conditioning activities revealed the highest energy requirements for swimming. These ranged from six to eight times the resting metabolic rate. Even higher levels of energy expenditure may be attained among individuals with less efficient swimming skills.



Barry Franklin

Rope skipping is another activity often used in physical conditioning programs. It is inexpensive, requiring minimal space and equipment.

Proponents often cite an early 1980s study which implied that a daily 10-minute bout of rope skipping was equal to 30 minutes of jogging.

Recent research, however, suggests this claim may be exaggerated and unfounded.

It appears that rope skipping is no more magical than other physical conditioning exercises. Furthermore, the high cardiovascular demands of rope skipping may exceed the fitness capacity of many persons.

THE ENERGY cost of jumping rope, apparently unaffected by the skipping rate, ranges from nine to 13 times above resting levels. It is equivalent to running at a 6-8 mph pace.

Interestingly, as the skipping rate increases, the person's vertical or jump height decreases, so that the total energy expenditure remains relatively constant. Thus, the cardiovascular stress placed on the individual will be almost the same, no matter how fast you skip.

In summary, extremely high energy requirements and the inability to carefully regulate exercise intensity preclude the general recommendation of swimming or rope skipping for cardiac patients or normal persons with low fitness.

Instead, walking, jogging, stationary bicycling and vigorous calisthenics are more appropriate cardiovascular conditioners, particularly during the early phase of an exercise program.

A Farmington Hills resident, Barry Franklin, Ph.D., teaches in the Wayne State University medical school and is co-director of cardiac rehabilitation at Sinai Hospital.

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