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**3** Exercising in the pool

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## Physical Therapist's Guide to Running

### Part 3 of 4 - Five Minutes of Running Per Day Can Be Beneficial To Your Health

Running for as little as five minutes a day could significantly lower a person's risk of dying prematurely, according to a large-scale new study of exercise and mortality. The findings suggest that the benefits of even small amounts of vigorous exercise may be much greater than experts had assumed.

In recent years, moderate exercise, such as brisk walking, has been the focus of a great deal of exercise science and most exercise recommendations. The government's formal 2008 exercise guidelines, for instance, suggest that people should engage in about 30 minutes of moderate exercise on most days of the week. Almost as an afterthought, the recommendations point out that half as much, or about 15 minutes a day of vigorous exercise, should be equally beneficial.

But the science to support that number had been relatively paltry, with few substantial studies having carefully tracked how much vigorous exercise is needed to reduce disease risk and increase lifespan. Even fewer studies had looked at how small an amount of vigorous exercise might achieve that same result.

For decades, researchers there have been collecting information about the health of tens of thousands of men and women visiting the clinic for a check-up. These adults, after completing extensive medical and fitness

examinations, have filled out questionnaires about their exercise habits, including whether, how often and how speedily they ran.

From this database, the researchers chose the records of 55,137 healthy men and women ages 18 to 100 who had visited the clinic at least 15 years before the start of the study. Of this group, 24 percent identified themselves as runners, although their typical mileage and pace varied widely.

The researchers then checked death records for these adults. In the intervening 15 or so years, almost 3,500 had died, many from heart disease.

But the runners were much less susceptible than the nonrunners. The runners' risk of dying from any cause was 30 percent lower than that for the nonrunners, and their risk of dying from heart disease was 45 percent lower than for nonrunners, even when the researchers adjusted for being overweight or for



not many of the runners smoked). And even overweight smokers who ran were less likely to die prematurely than people who did not run, whatever their weight or smoking habits.

As a group, runners gained about three extra years of life compared with those adults who never ran.

Remarkably, these benefits were about the same no matter how much or little people ran. Those who hit the paths for 150 minutes or more a week, or who were particularly speedy, clipping off six-minute miles or better, lived longer than those who didn't run. But they didn't live significantly longer those who ran the least, including people running as little as five or 10 minutes a day at a leisurely pace of 10 minutes a mile or slower.

"We think this is really encouraging news," said Timothy Church, a professor at the Pennington Institute who holds the John S. McIlHenny Endowed Chair in Health Wisdom and co-authored the study. "We're not talking about training for a marathon," he said, or even for a 5-kilometer (3.1-mile) race. "Most people can fit in five minutes a day of running," he said, "no matter how busy they are, and the benefits in terms of mortality are remarkable."

The study did not directly examine how and why running affected the risk of premature death, he said, or whether running was the only exercise that provided such benefits. The researchers did find that in general, runners had less risk of dying than people who engaged in more moderate activities such as walking.

But "there's not necessarily something magical about running, per se," Dr. Church said. Instead, it's likely that exercise intensity is the key to improving longevity, he said, adding, "Running just happens to be the most convenient way for most people to exercise intensely."

Anyone who has never run in the past or has health issues should, of course, consult a doctor before starting a running program, Dr. Church said. And if, after trying for a solid five minutes, you're just not enjoying running, switch activities, he added. Jump rope. Vigorously pedal a stationary bike. Or choose any other strenuous activity. Five minutes of taxing effort might add years to your life.



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### 10 Exercises To Do In the Pool

Pool (aquatic) exercise provides many benefits, including an ideal environment to exercise throughout the year. The buoyancy of the water supports a portion of your body weight making it easier to move in the water and improve your flexibility. The water also provides resistance to movements, which helps to strengthen muscles. Pool exercises can also improve agility, balance, and cardiovascular fitness. Many types of conditions greatly benefit from pool exercise, including arthritis, fibromyalgia, back pain, joint replacements, neurological, and balance conditions. The pool environment also reduces the risk of falls when compared to exercise on land.



#### Preparing for the Pool

Before starting any pool exercise program, always check with your physical therapist or physician to make sure pool exercises are right for you. Here are some tips to get you started:

- Water shoes will help to provide traction on the pool floor.
- Water level can be waist or chest high.
- Use a Styrofoam noodle or floatation belt/vest to keep you afloat in deeper water.
- Slower movements in the water will provide less resistance than faster movements.
- You can use webbed water gloves, Styrofoam weights, inflated balls, or kickboards for increased resistance.
- Never push your body through pain during any exercise.
- Although you will not sweat with pool exercises, it is still important to drink plenty of water.

#### 10 Excellent Exercises for the Pool

- 1. Water walking or jogging: Start with forward and backward walking in chest or waist high water. Walk about 10-20 steps forward, and then walk backward. Increase speed to make it more difficult. Also, increase intensity by jogging gently in place. Alternate jogging for 30 seconds with walking in place for 30 seconds. Continue for 5 minutes.
- 2. Forward and side lunges: Standing near a pool wall for support, if necessary, take an oversized lunge step in a forward direction. Do not let the forward knee advance past the toes. Return to the starting position and repeat with the other leg. For a side lunge, face the pool wall and take an oversized step to the side. Keep toes facing forward. Repeat on the other side. Try 3 sets of 10 lunge steps. For variation, lunge walk in a forward or sideways direction instead of staying in place.
- 3. One leg balance: Stand on 1 leg while raising the other knee to hip level. Place a pool noodle under the raised leg, so the noodle forms a "U" with your foot in the center of the U. Hold as long as you can up to 30 seconds and switch legs. Try 1-2 sets of 5 on each leg.
- 4. Sidestepping: Face the pool wall. Take sideways steps with your body and toes facing the wall. Take 10-20 steps in 1 direction and then return. Repeat twice in each direction.
- 5. Hip kickers at pool wall: Stand with the pool wall to one side of your body for support. Move 1 leg in a forward direction with the knee straight, like you are kicking. Return to start. Then move the same leg to the side, and return to the start position. Lastly, move that same leg behind you. Repeat 3 sets of 10 and switch the kicking leg.
- **6. Pool planks:** Hold the noodle in front of you. Lean forward into a plank position. The noodle will be submerged under the water, and your elbows should be straight downward toward the pool floor. Your feet should still be on the pool floor. Hold as long as comfortable, 15-60 seconds depending on your core strength. Repeat 3-5 times.
- 7. Deep water bicycle: In deeper water, loop 1-2 noodles around the back of your body and rest your arms on top of the noodle for support in the water. Move your legs as if you are riding a bicycle. Continue for 3-5 minutes.
- **8.** Arm raises: Using arm paddles or webbed gloves for added resistance, hold arms at your sides. Bend your elbows to 90 degrees. Raise and lower elbows and arms toward the water surface, while the elbows remain bent to 90 degrees. Repeat for 3 sets of 10.
- 9. Push ups: While standing in the pool by the pool side, place arms shoulder width apart on pool edge. Press weight through your hands and raise your body up and half way out of the water, keeping elbows slightly bent. Hold 3 seconds and slowly lower back into pool. (Easier variation: Wall push up on side of pool: place hands on edge of pool shoulder width apart, bend elbows, and lean chest toward the pool wall.)
- 10. Standing knee lift: Stand against the pool wall with both feet on the floor. Lift 1 knee up like you are marching in place. While the knee is lifted even with your hip, straighten your knee. Continue to bend and straighten your knee 10 times, and then repeat on the other leg. Complete 3 sets of 10 on each leg. For more of a challenge, try this exercise without standing against the pool wall.