Aging adults: Stay fit, think fast

Here's another reason to get moving, particularly if you're older: Older adults who stay fit may be better equipped to deal with situations that require quick or multitask thinking.

In a soon-to-be-published study, researchers at the University of Illinois tested 24 adults, ages 57 to 72, plus a control group of eight college students. The tests focused on "executive control function," or ECF, the type of complex thinking needed to handle a sudden, unexpected change—such as a car darting into your lane—which requires a multitude of instantaneous decisions. ECF also operates in multitasking situations, such as talking on the telephone and checking e-mail simultaneously.

The ECF responses of the most physically active older adults were closer to the young adults' responses than to those of the less-active older adults. Specifically, the active individuals processed information more quickly and more efficiently, using less brainpower to complete the same tasks.

Previous research strongly supports the protective benefits of exercise on both cognitive and motor function as people age. For example, studies have linked regular exercise in older people with sharper thinking; reduced risk of cognitive decline; and improved motor preparation, in which the brain prepares the body to act; and even anatomic differences in the brain.

Older people aren't the only ones whose brains can benefit from exercise. Research suggests that exercise may sharpen motor preparation in people as young as age 18.

Help for lung patients

Exercise can help people with lung disease stay active, but it often intolerably difficult for them. New research suggests that some of the difficulty stems from muscle weakness caused by inactivity—a problem at least partly correctable by strength training.

In several small recent studies strength training improved exercise tolerance and overall function in patients with chronic obstructive pulmonary disease (COPD), a common lung disorder. The findings represent a new direction for COPD research, which has focused more on aerobic exercise.

Based partly on that research, the American College of Sports Medicine (ACSM) recommends strength training two to three days a week for COPD patients, under a doctor's supervision. In addition, experts at ACSM recommend 20 to 30 minutes of supervised aerobic exercise at least three times a week. Exercises that work mainly the legs are most helpful, since leg endurance is crucial for daily activities.

Staying active, safely, while pregnant

Experts at two major health organizations have strengthened their endorsement of exercise as a safe, vital part of pregnancy.

The latest recommendations from the American College of Obstetrics and Gynecology (ACOG) advise healthy women with normal pregnancies to exercise normally—at least 30 minutes, at moderate intensity, most days of the week, the same minimum advice for all healthy adults. That's a step up from last decade, when ACOG supported exercise for pregnant women, but didn't recommend a specific prescription.

Meanwhile, new information presented at the American College of Sports Medicine's annual meeting in 2002 suggests that even strenuous workouts are OK for expectant mothers who had exercised that intensely before pregnancy.

Both groups tout exercise's ability to improve maternal fitness (including preparing women for labor), help control weight gain, hasten postpartum recovery, and ease postpartum depression.

While healthy pregnant women needn't curb their activity level, they must take certain precautions, preferably with their physician's guidance:

• Avoid physical activities that have a high risk of either falls (skiing, horseback riding) or abdominal trauma (basketball, soccer).

• Avoid scuba diving, which can sicken the fetus, and exercising at altitudes above 6,000 feet, which can deprive both mother and fetus of oxygen.

• Don't exercise on your back, which can cause blood pressure to drop.

• Avoid activities that require jumping or quick changes in direction.

• Replenish calories burned during workouts, particularly strenuous ones.

• Don't exceed prepregnancy intensity.

• Stop exercising and consult a physician if any of the following warning signs occur: pain, vaginal bleeding, unusual shortness of breath, dizziness, rapid heartbeat, difficulty walking, uterine contractions, or vaginal fluid leakage.