Incorporating regular physical activity brings diabetic adults closer to aging rate of healthy adults, study finds

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One of life's certainties is that everyone ages. However, it's also certain that not everyone ages at the same rate. According to recent research being presented this week, the cardiovascular system of people with type 2 diabetes shows signs of aging significantly earlier than those without the disease. However, exercise can help to slow down this premature aging, bringing the aging of type 2 diabetes patients' cardiovascular systems closer to that of people without the disease, says researcher Amy Huebschmann of the University of Colorado School of Medicine. She will be presenting these findings she developed with colleagues Wendy Kohrt and Judith Regensteiner, both from the same institution.

An abstract of their study entitled, "Exercise Attenuates the Premature Cardiovascular Aging Effects of Type 2 Diabetes Mellitus," will be discussed at The Integrative Biology of Exercise VI meeting being held October 10-13 at the Westin Westminster Hotel in Westminster, CO.

Documented Benefits

Huebschmann and her colleagues' review of current research suggests that it's inevitable that fitness gradually decreases with age, such that a healthy adult loses about 10 percent of fitness with each decade of life after age 40 or 50. However, fitness levels are about 20 percent worse in people with type 2 diabetes than in nondiabetic adults. These findings have been shown in the adolescent, middle-aged adult, and older adult

populations. Diabetes appears to place a 20 percent tax on your fitness levels at each stage of life. Not only do these patients have more trouble with exercise, the researchers say, but also with activities of daily living, such as a simple stroll to the corner store. This loss of fitness increases the mortality of people with type 2 diabetes, says Huebschmann, as well as the risk of early disability.

"It means you might move into an institutionalized setting, such as an assisted living facility, much earlier," she explains.

The good news is that exercise training can decrease these premature aging effects, a result that Huebschmann and her colleagues, as well as other researchers, have shown in various studies. Findings suggest that after 12 to 20 weeks of regular exercise, fitness in type 2 diabetic people can improve by as much as 40 percent, although fitness levels did not fully normalize to levels of nondiabetic people.

"In other words, these defects are not necessarily permanent," Huebschmann says. "They can be improved, which is great news."

Helping Diabetic People Exercise

Huebschmann, whose research involves finding and overcoming barriers of physical activity for people with type 2 diabetes, notes that each piece of research she and her colleagues present gives hope that exercise training can help lower the risks of cardiovascular problems associated with this disease. However, she adds, these findings can't make people with type 2 diabetes incorporate the recommended 150 minutes per week of moderate exercise into their lives.

"People with diabetes are typically less physically active, but the majority of those patients say that their doctors told them to be active," Huebschmann says. "There's a disconnect between what patients know

they should do and what they actually do."

She and her colleagues are currently working on developing interventions that get people with type 2 diabetes to reach their exercise goals, such as receiving text messages or automated reminders.

"Type 2 diabetes has a significant negative impact on health," she says, "but that impact can be improved with as simple an intervention as regular brisk walking or other physical activity that most people with diabetes can do."

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