MedicalXpress

Minimal exercise can prevent disease, weight gain in menopausal women

October 18 2016

Past research has indicated that metabolic function is critical for women to prevent cardiovascular disease and type II diabetes after they reach menopause. Now, according to new research from the University of Missouri, minimal exercise may be all it takes for postmenopausal women to better regulate insulin, maintain metabolic function and help prevent significant weight gain. These findings suggest that women can take a proactive approach and may not need to increase their physical activity dramatically to see significant benefits from exercise.

"Diseases and weight gain associated with metabolic dysfunction skyrocket after menopause," said Vicki Vieira-Potter, assistant professor of nutrition and exercise physiology at MU. "The intent of this research was to determine what role exercise plays in protecting women, specifically less-active women, metabolically as they go through menopause."

Vieira-Potter's research team compared how exercise training maintained metabolic function in sedentary rats versus highly active rats. The rats were provided a running wheel which they could use as much or as little as they wanted. The sedentary rats only ran 1/5th of the distance as the highly active rats did; yet, the limited physical activity still maintained their metabolic function and normalized insulin levels. Moreover, the previously sedentary rats saw a 50 percent reduction in their fat tissue as a result of that small amount of exercise.

"These findings suggest that any physical activity, even just a small

amount, can do wonders in terms of maintaining metabolic function," Vieira-Potter said. "This is significant for postmenopausal women as they deal with weight gain associated with menopause as well as the increased risk for disease."

Vieira-Potter says sedentary women can be proactive as they enter menopause by:

- Going on regular walks with friends;
- Taking the stairs rather than the elevator;
- Joining beginners' fitness programs;
- Monitoring physical activity through use of fitness trackers.

"Voluntary running attenuates metabolic dysfunction in ovariectomized low-fit rats," recently was published in Medicine and Science in Sports and Exercise. Jaume Padilla, assistant professor; and Jill Kanaley, professor and associate chair; in the department of nutrition and exercise physiology co-authored the study. Other contributors from MU were Young-Min Park, a former graduate student; Terese Zidon, graduate student; Rebecca Welly, lab manager in the department of nutrition and exercise physiology; and Frank Booth, professor of biomedical sciences. Researchers from the University of Michigan medical school and the University of Kansas medical center also contributed to the study.

Provided by University of Missouri-Columbia