# THE SCIENCE OF AGING Spring 2019

# an Institute on Aging publication



# Bone Fractures Increasing as Seniors Walk Dogs to Stay Active

While walking a dog provides older Americans with a valuable outlet for regular, physical activity, a Penn Medicine study has shown that fractures related to these walks have more than doubled between 2004 and 2017 in patients 65 and older. In this population, 78 percent of the fractures occurred in women, with hip and upper extremity breaks being the most common. This study was published in JAMA Surgery.

The rise in injuries in this population is a result of two trends the researchers say: increased pet ownership and a greater emphasis in recent years on physical activity at older ages.

"Dog walking, which has repeatedly demonstrated social, emotional and physical health benefits, is a popular and frequently recommended activity for many older Americans seeking new ways to stay active," said the study's lead author Kevin Pirruccio, a medical student in the Perelman School of Medicine at the University of Pennsylvania. "This study highlights that while there are undoubtedly pros to dog walking, patients' risks for falls must be factored into lifestyle recommendations in an effort to minimize such injuries."

Pirruccio and his co-authors, Jaimo Ahn, MD, PhD, associate professor of Orthopaedic Surgery and Yeo Myoung Yoon, a research assistant at Penn, aren't setting out to keep seniors from walking dogs or owning them. But they hope their study and others that build off of it provide grounds for deeper considerations about the risks everyone faces as they grow older.

> For the full Penn Medicine News Release, visit: www.pennmedicine.org/news/news-releases

Between 2004 and 2017, dog-walking-related fractures in people 65+ more than doubled.

an excerpt from a Penn Medicine News Release by Frank Otto, Penn Medicine Communications originally published on pennmedicine.org



1. Clean Out Your Medicine Cobinet Properly dispose of unused and expired medications and make sure all current medications are stored and labeled in appropriate containers.

2. Re-stock Emergency Kits Change the batteries in all smoke alarms and carbon monoxide detectors and run a test to ensure they are functioning. Check the expiration date on your fire extinguishers. Replace any missing items in your first aid (band-aids, antibiotic ointment, wound care dressings, eye-drops, etc.) and emergency kits (flashlight, protein/snack bars, list of current medications, emergency contact information.)

3. De-Clutter Remove or reorganize furniture and other obstructive items inside and outside of your home to reduce the risk of trips and falls. \*Important\* Never try to move large and/ or heavy objects on your own.

4. Window Safety | Make sure that at least one window in each room meets emergency escape requirements and that all window locks and latches are in working order.

3. Stay Hydrated | With warmer temperatures on the way, it is especially important to drink plenty of water.

# MEET OUR IOA and ADCC PILOT

# PILOT AWARD WINNERS

for fiscal year 2020



Evaluating the use and outcomes of post-acute care for individuals with dementia PI: Robert Burke, MD, MS



Post-surgical acceleration of neurodegeneration PI: Krzysztof Laudanski, PhD



**'Post-biotic' interventions to** ameliorate age-related inflammation PI: Maayan Levy, PhD



Evaluating Time Out: An intergenerational respite, training and mentorship program PI: Lauren Massimo, PhD, CRNP



Restoring Sleep in the Aging Brain PI: Franz Weber, PhD



The impact of the microbiome on sarcopenia PI: Christoph A. Thaiss, PhD & Karthikeyani Chellappa, PhD

## About the IOA/ADCC Pilot Award Program

The IOA/ADCC pilots are one-year, non-renewable grants that assist faculty in obtaining preliminary data to serve as the basis of a grant application to the National Institutes of Health or other public or private agencies concerned with aging and aging related neurodegenerative disorders.

For more information, including full abstracts of this year's pilots, visit: www.med.upenn.edu/aging/PilotAwards.html





Penn Medicine's 8th Annual 5K for the IOA & the Memory Mile Walk

Sunday, September 22, 2019 | 8am Penn Park, Shoemaker Green Entrance University of Pennsylvania

Help support Alzheimer's and agingrelated research and care at Penn's Institute on Aging

Learn more at: www.pennmedicine.org/5kioa Penn Frontotemporal Degeneration (FTD) Center's Annual Caregiver Conference



# Friday, June 14, 2019 | 8am - 4:30pm Smilow Center Auditorium & Lobby University of Pennsylvania

Gain access to FTD information and support through presentations from leading experts in neuropsychology, clinical care, genetics and cognitive neuroscience. Plus, get the latest research-based insights and information about innovative treatments and diagnostics offered at Penn.

Register and learn more at: pennmedicine.org/FTDconference2019

# SOME NURSING HOME PATIENTS ARE NEVER SEEN BY A DOCTOR

When a patient is discharged from the hospital but is too sick to go directly home, often times they will be placed in a nursing home for additional medical attention. However, according to a recent study at the University of Pennsylvania's Perelman School of Medicine, some nursing home patients are never actually seen by a doctor.

The study, led by Penn Medicine's Kira Ryskina, MD, MS, an internist and health policy researcher, looked at records for 2.4 million Medicare patients who were discharged from hospitals and placed into nursing homes and found that a shocking 10.4 percent were never seen by a doctor, nurse practitioner, or physician assistant.

Furthermore, 28 percent of those patients were readmitted to a hospital and 14 percent died within 30 days of admission to the nursing home.

These numbers are nearly double the rates of hospital readmission and deaths of those patients who were seen by a doctor at least once upon arriving at the nursing home. Only 14.3 percent of patients who saw a doctor at least once were readmitted to a hospital and 7.2 percent died within that same time period.

"Overall, these findings are concerning because they suggest that elderly patients discharged from hospitals to skillednursing facilities are not receiving the care they need at a time when they might be particularly at risk for poor outcomes," said Dr. Ryskina, originally quoted in a feature on reuters.com.

For more, including a link to the full study, visit: **www.penninstituteonaging.wordpress.com** 





# LARGEST-EVER ALZHEIMER'S GENE STUDY REVEALS FIVE NEW GENES THAT INCREASE RISK

As featured in a recent Penn Medicine News Release, the International Genomic Alzheimer's Project (IGAP), led in part by Penn Medicine's Gerard Schellenberg, PhD, professor of Pathology and Laboratory Medicine, analyzed information from more than 94,000 individuals and found new information on the underlying causes of Alzheimer's disease.

Among the discoveries were five new genes that increase risk for the disease as well as which cellular pathways might be implicated in the disease process.

"The Alzheimer's Disease Genetics Consortium at Penn, one of the key components of IGAP, has helped organize a significant portion of the data used in this work," Schellenberg was quoted in the news release. "Only by pooling our data and working with international collaborators can we make these significant discoveries that we hope will pave the way for Alzheimer's disease prevention and treatments."

Mutations in a specific gene -- the amyloid precursor protein (APP) -- have previously been shown to be directly related to early-onset Alzheimer's, however, in this study which uses data from late-onset Alzheimer's patients, it is suggested that gene variants affecting APP and amyloid beta protein processing are associated with both types of Alzheimer's.

The study also implicated a genetic link of AD to tau-binding proteins. These findings suggest that therapies developed by studying subjects with early-onset disease could also be applied to the late-onset form of Alzheimer's.

For the full Penn Medicine News Release, visit: www.pennmedicine.org/news/news-releases



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The mission of the Institute on Aging (IOA) at the University of Pennsylvania is to improve the health of older adults by increasing the quality and quantity of clinical and basic research as well as educational programs focusing on normal aging and aging-related diseases across the entire Penn campus.

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Institute on Aging

### Institute on Aging External Advisory Board

Meet our IOA External Advisory Board (EAB) members and learn more at: www.med.upenn.edu/aging/ExternalAdvBoard.html

#### Make a Gift

To support aging-related research and care at the IOA, please contact: Elizabeth Yannes, Penn Medicine Development elyannes@upenn.edu | 215-573-4961

#### Need More IOA + Aging-related News?

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#### Become a Fellow

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