

1.69-2.97). After adjusting for age, gender, BMI, history of diseases, hsCRP, LDLc, TMAO levels remained associated with frailty (OR=2.11, 95%CI, 1.01-4.38). Similarly, a cubic spline curve showed a dose-dependent relationship between the odds ratio for the risk of frailty and circulating TMAO in a linear trend ( $p = 0.006$ ). This study suggests that circulating TMAO are independently associated with frailty in older adult with cardiovascular diseases. Efforts to further characterize the relationship between gut microbiota metabolite and frailty should be further pursued.

#### ASSOCIATION OF BRAIN NATRIURETIC PEPTIDE WITH MORTALITY IN EXCEPTIONALLY LONG-LIVED FAMILIES

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Natriuretic peptides are produced within the heart and released in response to increased chamber wall tension and heart failure (HF). N-Terminal prohormone Brain Natriuretic Peptide (NT-proBNP) is a specific natriuretic peptide commonly assayed in persons at risk for HF. In these individuals, NT-proBNP is associated with future disease prognosis and mortality. However, its association with mortality among healthy older adults remains unknown. Therefore, we determined the association of NT-proBNP with all-cause mortality over a median follow-up of 10 years in 3253 individuals free from HF at baseline in the Long Life Family Study, a study of families recruited for exceptional longevity. We performed cox proportional hazards analysis (coxme in R) for time-to-event (mortality), adjusted for field center, familial relatedness, age, sex, education, smoking, alcohol, physical activity, BMI, diabetes, hypertension, and cancer. In addition, we performed secondary analyses among individuals (N=2457) within the normal NT-proBNP limits at baseline (<125pg/ml aged <75 years; <450pg/ml aged ≥75 years). Overall, individuals were aged 32-110 years (median 67 years; 44% male), had mean NT-proBNP of 318.5 pg/ml (median 91.0 pg/ml) and 1066 individuals (33%) died over the follow-up period. After adjustment, each 1 SD greater baseline NT-proBNP was associated with a 1.30-times increased hazard of mortality (95% CI: 1.24-1.36;  $P < 0.0001$ ). Results were similar in individuals with normal baseline NT-proBNP (HR: 1.21; 95% CI: 1.11-1.32;  $P < 0.0001$ ). These results suggest that NT-proBNP is a strong and specific biomarker for mortality in older adults independent of current health status, even in those with clinically-defined normal NT-proBNP.

#### EXAMINING ANKLE FOOT ORTHOSIS WEAR TIME IN PATIENTS WITH PERIPHERAL ARTERY DISEASE

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Peripheral artery disease (PAD) impacts over 8.5 million Americans and the prevalence of PAD increases with age. PAD restricts blood flow to the leg and its most common manifestation is claudication, a severe impairment of walking produced by ischemia-related, leg pain during exercise. An ankle foot orthosis (AFO) could improve these symptoms. To understand the potential impact of AFO usage, it is critical to determine wearability of the device in patients with PAD. The purpose of this study was to monitor wear time of an AFO and explore perceptions of the device. Participants (n=14) with PAD and claudication wore an AFO for three months. An accelerometer was placed directly on the AFO for 7 days and participants completed semi-structured interviews at midpoint (1.5 months) and post intervention (3 months). Based on accelerometer data at midpoint participants wore the AFO for an average of 4.9±2.3 out of 7 days and for an average of 7.5±4.2 hours each day. At post, participants wore the AFO for an average of 4.8±2.2 days for an average of 7.4±4.6 hours per day. In the interviews, almost all participants noted multiple barriers to wearing the AFO such as difficulty putting the AFO on and off, using stairs, walking on uneven ground, and driving. Our study found that participants wore the AFO ~7 hours/day but experienced barriers which may have limited their wear outside of these monitoring periods suggesting patients would wear an assistive device if design could be improved to address barriers.

#### IDEAL CARDIOVASCULAR HEALTH IS ASSOCIATED WITH SLOWNESS AMONG COMMUNITY-DWELLING OLDER ADULTS

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Slowness is associated with increased disability and mortality in older people. However, the relation between ideal cardiovascular health (CVH) and slowness in community-dwelling older adults is uncertain. We examined the prevalence of ideal CVH in Korean older adults and its association with slowness in community-dwelling older adults. We analyzed 2,597 participants (mean age 76.0±3.9 years, 54.4% women) without cardiovascular disease from the Korean Frailty and Aging Cohort Study. The usual gait speed over a distance of 4 m was measured using an automatic timer, and slowness was defined as a speed <1.0 m/s. Ideal CVH was described as attainment of ideal health behaviors (no smoking, regular physical activity, ideal body mass index, and healthy diet) and optimal health factors (blood pressure, HDL-cholesterol, and glycated hemoglobin). Multiple logistic regression analysis was used to examine the association between the CVH score and slowness. Ideal CVH was present in 785(30.2%) subjects. Considering those with poor level of CVH were as the reference group, the odds ratios