

Aus der Literatur

Impact of Acute Exercise on Brachial Artery Flow-mediated Dilatation in Young Healthy People

In-Chang Hwang, et al.

Cardiovasc Ultrasound. 2012;10(39) **Conclusions:** In healthy young subjects, FMD was reduced after a bout of acute exercise. The impact of acute exercise showed significant differences according to gender and exercise habit. FMD impairment after acute exercise was observed in females and subjects without regular exercise.

Association Between Biologic Outcomes and Objectively Measured Physical Activity Accumulated in ≥ 10 -Minute Bouts and < 10 -Minute Bouts

Loprinzi PD, Cardinal BJ

Am J Health Promot. 2013;27:143-151

Study Summary

Using cross-sectional National Health and Nutrition Examination Survey (NHANES) data from 2003-2006 that included 6321 participants ranging in age from 18 to 85 years, Lorinzi and colleagues compared health outcomes of brief physical activity (< 10 minutes) vs exercise lasting at least 10 minutes. Participants wore accelerometers for at least 4 days for 10 hours each day. About half of the participants were examined in a morning fasting session at which fasting triglyceride, LDL cholesterol, and glucose concentrations were obtained.

After adjustments, health outcomes were similar for both types of physical activity. For example, the odds ratio (OR) for metabolic syndrome for brief periods of physical activity (OR, 1.89; $P < .001$) was similar to that for exercise lasting at least 10 minutes (OR, 1.87; $P = .002$). With the exception of body mass index, similar values for the biologic variables were found between the 2 physical activity groups. The investigators concluded that adults who perceive themselves as having little time to exercise are still able to enhance their health by adopting an active-lifestyle approach rather than a more formalized exercise regimen. **Viewpoint**

This is great news for lazy people like me who don't want to bother going to the gym several times a week and go through a schedule of different exercises, never mind engaging a trainer to help motivate me. This study also validates what I have been telling my patients for years: that taking small steps can go a long way toward improving one's physical health. These include walking whenever feasible and taking the stairs instead of the elevator. Although the study did not address daily caloric intake, that can be modified as well by taking small steps, such as eliminating sugared beverages and substituting "diet" equivalents or water.

[Study: Number of People with Alzheimer's Disease May Triple by 2050](#)

Neurology®

The Official Journal of the [American Academy of Neurology](#)

The number of people with Alzheimer's disease is expected to triple in the next 40 years, according to a new study published in the February 6, 2013, online issue of *Neurology*®, the medical journal of the American Academy of Neurology.

"This increase is due to an aging baby boom generation. It will place a huge burden on society, disabling more people who develop the disease, challenging their caregivers, and straining medical and social safety nets," said co-author Jennifer Weuve, MPH, ScD, assistant professor of medicine, Rush Institute for Healthy Aging at Rush University Medical Center in Chicago. "Our study draws attention to an urgent need for more research, treatments and preventive strategies to reduce this epidemic."

[Exercise Decreases Diabetic Neuropathic Pain](#)

Anesthesia & Analgesia

Official Journal of the [International Anesthesia Research Society](#)

The underlying mechanism of exercise on the development of diabetes-associated neuropathic pain is not well understood. Forced exercise markedly delays the progression of tactile hypersensitivity, but not thermal hyperalgesia. Study study found progressive exercise training markedly decreases diabetes-associated neuropathic pain, including thermal hyperalgesia and mechanical allodynia. Full results of this study can be found in the February issue of *Anesthesia & Analgesia*.

A non-exercise testing method for estimating cardiorespiratory fitness:

associations with all-cause and cardiovascular mortality in a pooled analysis of eight population-based cohorts [Stamatakis,E](#)

Aims Cardiorespiratory fitness (CRF) is a key predictor of chronic disease, particularly cardiovascular disease (CVD), but its assessment usually requires exercise testing which is impractical and costly in most health-care settings. Non-exercise testing cardiorespiratory fitness (NET-F)-estimating methods are a less resource-demanding alternative, but their predictive capacity for CVD and total mortality has yet to be tested. The objective of this study is to examine the association of a validated NET-F algorithm with all-cause and CVD mortality.

Methods and results The participants were 32 319 adults (14 650 men) aged 35–70 years who took part in eight Health Survey for England and Scottish Health Survey studies between 1994 and 2003. Non-exercise testing cardiorespiratory fitness (a metabolic equivalent of VO₂max) was calculated using age, sex, body mass index (BMI), resting heart rate, and self-reported physical activity. We followed participants for mortality until 2008. Two thousand one hundred and sixty-five participants died (460 cardiovascular deaths) during a mean 9.0 [standard deviation (SD) = 3.6] year follow-up. After adjusting for potential confounders including diabetes, hypertension, smoking, social class, alcohol, and depression, a higher fitness score according to the NET-F was associated with a lower risk of mortality from all-causes (hazard ratio per SD increase in NET-F 0.85, 95% confidence interval: 0.78–0.93 in men; 0.88, 0.80–0.98 in women) and CVD (men: 0.75, 0.63–0.90; women: 0.73, 0.60–0.92). Non-exercise testing cardiorespiratory fitness had a better discriminative ability than any of its components (CVD mortality c-statistic: NET-F = 0.70–0.74; BMI = 0.45–0.59; physical activity = 0.60–0.64; resting heart rate = 0.57–0.61). The sensitivity of the NET-F algorithm to predict events occurring in the highest risk quintile was better for CVD (0.49 in both sexes) than all-cause mortality (0.44 and 0.40 for men and women, respectively). The specificity for all-cause and CVD mortality ranged between 0.80 and 0.82. The net reclassification improvement of CVD mortality risk (vs. a standardized aggregate score of the modifiable components of NET-F) was 27.2 and 21.0% for men and women, respectively.

Conclusion: The CRF-estimating method NET-F that does not involve exercise testing showed consistent associations with all-cause and cardiovascular mortality, and it had good discrimination and excellent risk reclassification improvement. As such, it merits further attention as a practical and potentially and useful risk prediction tool.

Alzheimer Erkrankung in den USA: Man rechnet mit einem dramatischen Anstieg des M. Alzheimer in den USA in den kommenden 40 Jahren von auf 13.8 Millionen.

Liesi E. Et al: Neurology, Feb. 2013

Kardiorespiratorisches Fitnessregister in den USA eingerichtet: Die zunehmende Bedeutung der Fitness im Belastungstest (maximaler Belastungstest mit Bestimmung der V02max hat zur Einrichtung eines Registers in den USA geführt: **Kaminsky LA et al. Circulation 127,2013:652 ff.**

Kommentar: Ein Projekt, was auch in Deutschland einzuführen sinnvoll wäre. Die sportmed. Institute sind gefordert, eine Unterstützung des BISP wäre sicher sinnvoll.

Skoliose bei Heranwachsenden: New Engl J. Med 368,2013:834: Eine sehr gute Übersicht zur Diagnostik und Therapie

Akuter Herzinfarkt

Die aktuellen Leitlinien zur Behandlung des ST-Hebungsinfarktes der AHA: Circulation 127, 2013:529 ff. Ein Muss für den Internisten und den Kardiologen, für jeden Notfallmediziner

Reanimation Herzdruckmassage als Erstmaßnahme bis zum Eintreffen des Notarztes wichtiger als eine insuffiziente zusätzl. Beatmung. **Dumas F. Et al., Circulation 127,2013:435**

Hypertrophe Kardiomyopathie im Alter: Eher ein gutartiger Verlauf. **Maron BJ et al., Circulation 127,2013:585:** Risk stratification...

Körperliche Aktivität und seine Wirkungen bei koronarer Herzkrankheit: Eine sehr gute Übersicht, allen die Herzgruppen betreuen, empfohlen. **Wienbergen H, Hambrecht R.** in: Curr Opin in Pharmacology 2013,13:1-8

Improving Cardiovascular Health

A Balance Between Discovery and Delivery William A. Zoghbi, MD David R. Holmes Jr, MD

JAMA 2013,März, 9.2013 (free access !!)

Conclusions: Following the UN summit, the World Health Organization approved the ultimate goal of reducing premature mortality from noncommunicable diseases by 25% by the year 2025.⁶ This is an admirable and yet challenging goal. The task force on CVD, which includes numerous cardiovascular professional organizations, published a position paper emphasizing the urgent timing of action and adoption of targets for cardiovascular health.⁷ The concept of “one size does not fit all” is germane, because achievement of these targets will be variable: national needs must be prioritized according to local conditions. At the same time that cardiovascular medicine and science have become more and more adept at intervention by treatments based on understanding disease mechanisms, the US and global populations have fallen behind in controlling the origins and risk factors for CVD. Trends in certain cultures have had greater influence in promoting smoking, poor diets, and sedentary and high-stress lifestyles than physicians have had in advocating more healthful ways. For cardiovascular medicine, the vision of health must broaden; understanding of professional responsibilities must evolve to address these cultural factors publicly and directly.

Scientific discovery continues to unfold the secrets of disease and its manifestation. Support of this journey by governmental agencies, patient advocates, and professional societies is a crucial aspect necessary to reach the goal of health for members, for patients, and for society as a whole.

