

Exercise & Diet: The Latest

Clinical Edge provides succinct summaries of the latest “must-read” news and research. Here are several recent updates on the health benefits of improving lifestyle choices.

SEDDENTARY TIME INCREASES HEALTH RISKS

Biswas A, Oh PI, Faulkner GE, et al. Sedentary time and its association with risk for disease incidence, mortality, and hospitalization in adults: a systematic review and meta-analysis. *Ann Intern Med.* 2015;162(2):123-132. doi: 10.7326/M14-1651.

The more time a person spends sedentary, regardless of physical activity, the greater the risk for deleterious health outcomes, a systematic review and meta-analysis of more than 1.5 million patients found.

Researchers reviewed 47 studies on the association between sedentary time and hospitalizations, all-cause mortality, cardiovascular disease, diabetes, and cancer in adults, and found that sedentary time was independently associated with the following negative health outcomes:

- All-cause mortality (hazard ratio [HR], 1.24)
- Cardiovascular disease mortality (HR, 1.18)
- Cardiovascular disease incidence (HR, 1.14)
- Cancer mortality (HR, 1.17)
- Cancer incidence (HR, 1.13)
- Type 2 diabetes incidence (HR, 1.91)

Sedentary time was assessed as either daily overall sedentary time, sitting time, television or screen time, or leisure time spent sitting. High sedentary time was defined as a range from five or more hours per day watching television to 11 hours a day total sedentary time, depending on the study.

DOES EXERCISE INTENSITY IMPACT ABDOMINAL OBESITY?

Ross R, Hudson R, Stotz PJ, Lam M. Effects of exercise amount and intensity on abdominal obesity and glucose tolerance in obese adults: a randomized trial. *Ann Intern Med.* 2015;162(5):325-334. doi: 10.7326/M14-1189.

Exercise, regardless of the amount or intensity, produces similar reductions in abdominal obesity, but only high-amount, high-intensity exercise

showed improvements in two-hour glucose readings, according to a 24-week trial of 300 abdominally obese adults.

Subjects were split into a control group and three groups told to exercise five times per week at varying amounts and intensity based on maximum oxygen capacity (VO₂ peak)—low-amount, low-intensity (LALI); high-amount, low-intensity (HALI); and high-amount, high-intensity (HAHI)—with the following results (see Table, below).

TABLE

	Ave time (min)	Kcal/session (women)	VO ₂ peak	Waist reduction	2 h glucose reduction
LALI	31	180	50%	-3.9 cm	0
HALI	58	360	50%	-4.6 cm	0
HAHI	40	360	75%	-4.6 cm	-0.7 mmol/L

CHOOSE FRUITS AND VEGETABLES FOR LONGEVITY

Wang X, Ouyang Y, Liu J, et al. Fruit and vegetable consumption and mortality from all causes, cardiovascular disease, and cancer: systematic review and dose-response meta-analysis of prospective cohort studies. *BMJ.* 2014;349:g4490.

Eating at least five servings of fruits and vegetables daily is associated with a reduced risk for mortality from all causes and cardiovascular disease, but not cancer, a meta-analysis of studies published in *BMJ* reports.

Researchers analyzed 16 prospective cohort studies from the United States, Europe, and Asia that reviewed the effects of fruit and vegetable consumption on mortality from all causes, cardiovascular disease, and cancer. The studies involved a com-

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ANSWER

The radiograph shows a small calcification along the medial aspect of the medial collateral ligament. This finding is known as a *Pellegrini-Stieda lesion*. While it certainly could represent a small avulsion fracture, the lack of joint fluid and soft-tissue swelling makes this diagnosis less likely. The patient was treated symptomatically with anti-inflammatory medications. **CR**

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bined total of 833,234 subjects and a follow-up period ranging from 4.6 to 26 years and showed

- Risk for all-cause mortality decreased by 5% per serving per day, up to five servings a day.
- Risk for cardiovascular mortality decreased by 4% per serving, per day, up to five servings a day.
- Risk for cancer mortality was not appreciably associated with increased fruit or vegetable consumption.
- Fruit provided the greatest reduction in risk for

all-cause mortality at 6% per serving and cardiovascular mortality at 5% per serving. Vegetables reduced risks by 5% and 4%, respectively.

“This meta-analysis provides further evidence that higher consumption of fruits and vegetables is associated with a lower risk for mortality from all causes, particularly from cardiovascular diseases,” the authors conclude. “The results support current recommendations to increase consumption to promote health and overall longevity.” **CR**