

## Association of baseline level of physical activity and its temporal changes with incident HTN and DM

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**Background/Aims:** The association between baseline and temporal changes in physical activity (PA) and incident hypertension or diabetes mellitus (DM) in initially non-hypertensive or non-diabetic subjects is rarely known. **Methods:** Among individuals who underwent consecutive comprehensive health screenings, their PA level was measured using a self-reported international PA questionnaire. First, subjects were classified into four categories: no regular PA with a sedentary lifestyle; minimal PA (<75 minutes/week); insufficient PA ( $\geq 75$  minutes but <150 minutes/week); and sufficient PA ( $\geq 150$  minutes/week). Second, subjects were sub-grouped, based on temporal changes in PA level between baseline and consecutive follow-up: increase, no change, and decrease. **Results:** Finally, among 174,314 subjects (mean age  $36.7 \pm 6.9$  years), 5,544 (3.18%) and 21,276 (12.2%) developed incident DM and arterial hypertension, respectively. After a multivariate adjustment, sufficient baseline PA was associated with significantly lower risk for incident hypertension [hazard ratio (HR) 0.89; 95% confidence interval (CI), 0.81 to 0.97], but the difference was not significant, and showed a lower trend in DM incidence [HR, 0.87; 95% CI, 0.69 to 1.04], in reference to no regular PA group. Regardless of the baseline PA level, subjects with a temporal increase in PA showed significantly decreased risk for incident hypertension (HR 0.93; 95% CI, 0.87 to 0.99) and DM (HR, 0.83; 95% CI, 0.74 to 0.92), compared with those with a temporal decrease in their PA level. **Conclusions:** Both sufficient baseline PA level and its temporal increase were associated with a lower risk of incident hypertension and DM in a large, relatively healthy, cohort.

## Impact of Postdischarge Statin Therapy on Patients with AMI undergoing PCI with Drug-Eluting Stents

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**Background/Aims:** When taking the entire clinical practice into account, there are limited data to evaluate the clinical implications of postdischarge statin versus non-statin therapy in patients with acute myocardial infarction (AMI) undergoing percutaneous coronary intervention (PCI) with drug-eluting stents. **Methods:** From national health insurance claims data in South Korea, 28,516 patients aged 18 years or older without known history of coronary artery disease, who underwent PCI with drug-eluting stents as a diagnosis of AMI between 2011 and 2015, were enrolled. According to the postdischarge statin therapy, patients were categorized into non-statin ( $n=2,263$ ) and statin ( $n=26,253$ ) therapy groups. The primary endpoint, defined as an all-cause death, was compared by a propensity-score matching analysis between the two groups. **Results:** The average age of study participants was  $62.7 \pm 12.8$  years and 21,571 (75.6 %) were men. Diabetes mellitus, hyperlipidemia, and hypertension were observed in 7,335 (25.7%), 7,141 (25.0%), and 12,376 (43.4%) patients, respectively. After propensity-score matching, there were 2,237 matched pairs. During the follow-up period (median, 2.2 years; interquartile range, 1.2–3.3), the adjusted incidence of primary endpoint was significantly lower in the statin therapy group (adjusted hazard ratio [aHR] of statin therapy, 0.626; 95% confidence interval [CI]: 0.504–0.777;  $p<0.001$ ). In addition, the occurrence of a composite of death and recurrent coronary revascularization was significantly lower in the statin therapy group (aHR, 0.696; 95% CI: 0.606–0.799;  $p<0.001$ ). **Conclusions:** In Korean patients with AMI undergoing PCI with drug-eluting stents, postdischarge statin therapy provided clinical benefits over non-statin therapy

