

Boosting levels of a key growth factor may help prevent cardiovascular disease

October 19 2015

New research indicates that low levels of a growth factor called stem cell factor (SCF)—which is thought to be important for blood vessel repair—are linked with an increased risk of cardiovascular disease.

In a study of 384 patients with a first coronary event and 409 event-free individuals, SCF measurements had a predictive value that was in the same range as that of established [cardiovascular risk factors](#) such as LDL and HDL cholesterol. Moreover, smokers and diabetics had reduced levels of SCF in the circulation, and low blood levels of the [growth factor](#) were associated with more severe disease among patients with atherosclerosis.

"The existence of [stem cells](#) with the ability to turn into mature vascular cells has been known for several years but their role and importance has not been clear. Our study provides evidence that these cells have an important role in the protection against vascular degenerative diseases predisposing to myocardial infarction and stroke," said Dr. Maria Wigren, lead author of the *Journal of Internal Medicine* article. "We also show that smoking and diabetes can have a negative effect on the reparative capacity of these cells. We hope our findings may open opportunities for the development of novel therapies stimulating the activity of these repair processes."

More information: M. Wigren et al. Decreased levels of stem cell factor in subjects with incident coronary events, *Journal of Internal Medicine* (2015). [DOI: 10.1111/joim.12443](https://doi.org/10.1111/joim.12443)

Provided by Wiley

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