

- [Podcasts](#)
- [My news](#)
- [Unread news](#)
- [Science wire](#)

# Scientists develop a software tool for estimating heart disease risk

March 19th, 2012

University of Granada researchers have developed a software tool that makes an accurate estimation of the risk that a person has to suffer a heart disease. In addition, this software tool allows the performance of massive risk estimations, i.e. it helps estimating the risk that a specific population group has of suffering a heart condition. The researchers employed a sample including 3 000 patients.

Heart conditions increasingly affect working age population, which can make individuals loss potential years of work and productivity.

Understanding the risk for heart conditions by simultaneously using different equations is a key factor in heart disease prevention, which would reduce health spending in the short and long term.

## An Integrated Model

According to the researchers, "during the last decade, the approaches to cardiovascular disease prevention have evolved from isolated interventions on modifiable risk factors to an integral model of intervention strategies based on previous risk quantification and stratification."

One of the factors enabling this change is the increasing availability of tools for the quantification and stratification of the risk of suffering a cardiovascular disease; these tools evaluate a set of individual characteristics, the so-called risk factors. This is the framework of the study conducted at the University of Granada and recently published in the *Journal of Evaluation in Clinical Practice*.

In the field of epidemiologic studies aimed at predicting cardiovascular risk, a set of mathematical models had been developed in previous studies in the USA. The purpose of these models was to provide an estimation of the risk of suffering a cardiovascular event in the short term, i.e. 5-10 years, by assessing exposure to risk factors. University of Granada researchers used this model in their study.

The researchers performed a comparative study of the behavior of different equations applied to a group of "at-risk" patients referred to an Endocrinology Service from a primary care center in Granada, Spain. Risk factors were obesity, high blood pressure, diabetes and lipid profile alterations.

Provided by University of Granada

[Ads by Google](#)