Calculating Your Cardiovascular Risk

C ardiovascular disease is the leading cause of death in the world. One of the secrets to long and healthy life is to prevent the consequences of atherosclerotic cardiovascular disease. The best place to start is by learning your cardiovascular risk so that you can take necessary steps to lower it If you don't know your risk, you won't have the opportunity to prevent it.

Your individual risk of suffering a serious consequences of atherosclerotic cardiovascular disease can be determined using a formula, design to calculate the percentage of risk, over 10 year period or life time. The lower the percentage,lower the chance and higher the percentage, the higher the chance you will suffer significant heart and vascularproblem.

Several different scoring systems are available. They share several common risk factors but differ from each other depending on the studies on which they were based. STANDARD U.S. CALCULATOR- The most widely used calculator in the U.S.is the Pooled cohort risk calculator which estimates the 10 year risk of first atherosclerotic cardiovascular event.

Input your age, gender, race, blood pressure, total cholesterol, and high density cholesterol, and answer yes or no to a few questions- whether you have diabetes, whether you were a smoker or Are being treated for hypertension. The calculator then calculates your risk as follows. -Low risk: less than 5% -borderline risk: 5%-7.4% -intermediate risk: 7.5% to 19.9% -high risk: more than 20%.

Generally speaking, those with risk of 7.5% or higher are candidates for Statin therapy. In spite of its popularity, this calculator is controversial because it omits 2 risk factors, namely family history, and the presence of inflammation. Family history is a very powerful risk factor. Physicians can modify the calculator to include it.

Inflammation measured by a blood test for high sensitivity C reactive, protein. (hs CRP) is a proven predictor of risk. Without including these factors, the calculation may not be accurate. THE REYNOLDS RISK SCORE Whether or not either parent had a heart attack before the age of 60-and inflammation measured by hsCRP are included in this risk score calculator.

Therefore, this scoring system may provide a more accurate determination of cardiovascular risk in adults who do not have diabetes. People with diabetes are already at elevated risk of heart attack, and stroke anyway. THE EUROPEAN SYSTEM- U.S Pooled Cohort risk calculator ignores, geographical differences. European risk calculator do not.

The SCORE2 and SCORE2-OP calculators take into consideration, atherosclerotic cardiovascular disease risk in the country, where an individual resides ADDITIONAL CONSIDERATION- Risk calculators use the most common risk factors for cardiovascular disease, however, there are many other risk factors which can raise an individual risk.

Examples include elevated Lipo protein (a), high calcium score and diseases that increase systemic inflammation such as rheumatoid arthritis or lupus. Other factors are associated with pregnancy and female hormone changes. These include history of preeclampsia, gestational, diabetes, development of hypertension during pregnancy and menopause prior to age 40.

NEXT STEP- When once you know your risk, you need to act upon it. . This is best accomplished by having an honest discussion with your physician. Risk calculators generally provide 10 year risk estimates, but it's a good idea to lower the lifetime risk. This is because your cardiovascular risk will change as you age.

For example, a 50 year old man with mildly elevated LDL may have a low 10 year risk of cardiovascular disease, but his lifetime risk may be higher. A heart attack can change your life. A stroke can make you disabled. Your goal should be to prevent such adverse events.

Where to find these risk calculators -Pooled cohort calculator Risk Calculator:clinicalc.com/Cardiology/ASCVD/PooledCohort.aspx -REYNOLDS Risk Score:www.reynoldsriskscore.org/default.aspx -SCORE2 and SCORE2-OP: www.es-cardio.org/Education/Practice-Tools/CVD-prevention-toolbox/SCORE-Risk-Charts Keshava Aithal

---

Dr Keshava Aithal

ಅಂಕ 8 Double 0