

# What You Need To Know About Sudden Cardiac Death

Dr Abdul Razakjr Bin Omar, Consultant, Cardiac Department, shares some insights on SCD.

## 1) What is Sudden Cardiac Death (SCD)?

SCD is generally defined as an unexpected death as a result of cardiovascular causes in a person with or without pre-existing heart disease, within one hour onset of changes in clinical status – 'clinically well one hour ago and dead one hour after due to cardiovascular disease'.

## 2) What is the prevalence of this condition in Singapore?

A study in Singapore showed that there were about 300 cases of SCD occurring between the ages of 18 to 60 over a three year period, giving an incidence rate of about 100 a year. The causes of sudden cardiac death parallel that of Coronary Artery Disease (CAD). That is to say, most of the cases of SCD are due to sudden heart attacks.

## 3) Are men more at risk of getting this condition?

Up to 80% of SCD occurs in the setting of CAD, and men (between the young adult and early middle-age groups) are more likely to develop CAD. In addition, the incidence of SCD increases with advancing age, in parallel with the age-related increase in the incidence of total CAD deaths. Studies have shown that the incidence is 100-fold less in adolescents and adults younger than 30 years (1 in 100 000 per year) than it is in adults older than 35 years. Thus, the risk of SCD is higher in the older age group, presence of established CAD and cardiovascular risk factors associated with higher risk for CAD.

The incidence of SCD among healthy women is low and this is possibly due to the genetics and hormonal differences, and environmental influences in the gender differences.

## 4) What are the causes & symptoms of this condition?

SCD can follow many conditions, the most common of which is heart attacks. Other conditions such as viral myocarditis (inflammation of the heart muscles), structural heart abnormalities (eg hypertrophic cardiomyopathy), abnormal heart rhythm conditions (eg Brugada syndrome, long QT syndrome, Wolff-Parkinson-White syndrome, etc), abnormal fatty deposit in the muscles of the right heart chambers can also result in sudden cardiac death.

While the onset of death or cardiac arrest (in which there is cessation of heart beating) is sudden, many patients actually experience some forms of symptoms before death such as chest pain, shortness of breath, nausea, sweatiness, dizziness, etc.

## 5) How can SCD be prevented?

Up to 80% of the cause of SCD is due to CAD, therefore prevention of SCD runs in parallel with CAD by lifestyle modification (smoking cessation, regular exercise, weight control, dietary prudence in the form of low fat and low cholesterol intake, stress management) and risk factor control (control of high blood cholesterol, diabetes mellitus and hypertension). In those with family history of heart attacks, early screening for risk factors and adherence to healthy lifestyle is recommended.

In cases where there is family history of sudden death and the patient has symptoms of unexplained or post-exercise fainting spells, prompt evaluation in the form of an electrocardiogram recording and cardiologist's consultation is advised. When one has a flu episode, it is advisable that no strenuous physical activity be undertaken for at least a week after to avoid viral inflammation of the heart muscles, causing sudden cardiac death.

For enquiries on Sudden Cardiac Death (SCD) or appointments, please contact:



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