

Risks Factors for Aortic Aneurysms

1. What are the major risk factors in the development of aortic aneurysms (AA)?

Question submitted by: Dr. XX

The three most important risk factors are:

1. **Age**—clinically important aneurysms are those > 4 cm in diameter. The prevalence is about 1% of men between the ages of 55 and 64; it increases by 2% to 4% per decade thereafter.¹
2. **Smoking**—the incidence of the AA is directly related to number of years smoking. The odds ratio to develop AA in smokers is > 5.0.

3. **Gender**—abdominal AA occurs five times more commonly in men than women and twice as frequently in Caucasians compared to black people.

A positive family history and hypertension also increase the risk of AA.

Reference

1. Lederle FA, Johnson GR, Wilson SE, et al: Prevalence and Associations of Abdominal Aortic Aneurysm Detected Through Screening. *Ann Intern Med* 1997; 126(6):441-9.

Answered by:
Dr. J. G. Fodor

Prevalence of Brugada Syndrome

2. How common and dangerous is Brugada Syndrome?

Question submitted by: Dr. XX

Brugada syndrome is an autosomal dominant disorder which, in some cases, has been linked to a gene coding for a cardiac sodium channel. The molecular basis of this disease is not yet well understood. The prevalence varies with race, being more common in Asian populations. The prevalence in one American study was 0.4%.

In a study by Priori *et al*,¹ a cohort of patients with Brugada syndrome was analyzed, the results showed that 28% suffered a cardiac arrest between birth and the age of 60. Those with a history of syncope and abnormal resting ECG (showing the classic anterior ST elevation and right bundle branch block) were found to be at the highest risk.

Reference

1. Priori SG, Napolitano C, Gasparini M, et al: Clinical and Genetic Heterogeneity of Right Bundle Branch Block and ST-segment Elevation Syndrome: A Prospective Evaluation of 52 families. *Circulation* 2000; 102(20):2509-15.

Answered by:
Dr. Sarah Ramer

Supplements for a Healthy Heart

7. What is the best preventive medicine to keep a healthy heart? What supplements are most effective?

Question submitted by: Dr. XX

A host of natural products, vitamins and micronutrients are consumed by patients wanting to reduce their risk of coronary disease, often at great expense. There have been a number of observational studies suggesting that antioxidant vitamins (such as vitamin E) have cardioprotective effects. Large randomized trials (including the Heart Outcomes Prevention Evaluation [HOPE] study) have certainly not borne this out in the case of vitamin E, where there was no difference in recurrent ischemic events and a trend towards more heart failure in the the vitamin E group when compared to placebo.

There are several small randomized trials examining endothelial function in healthy volunteers exposed to a variety of products, such as green tea, fish oil and various antioxidant vitamins. Many of these studies show slight improvements in measured endothelial function. However, whether this corresponds to an improvement in outcome remains to be determined.

The bottom line is that the question of which supplements are most effective remains unanswered because there is an absence of large, randomized, control trial data. I tell my patients

to exercise and to maintain a healthy diet as per the Canada Food Guide. I encourage the intake of fish, walnuts and the moderate intake of alcohol, but I generally do not suggest any specific supplements.

Answered by:
Dr. Sarah Ramer

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Differences in Left and Right Systolic BP

8. What investigations should be done, for right and left systolic BP differences?

Question submitted by: Dr. XX

If a significant (> 10 mmHg) difference in right and left arm systolic BP is noted, the finding should be confirmed with at least one more BP measurement. The most common cause is significant subclavian or axillary artery stenosis secondary

to atherosclerosis, but the possibility of aortic coarctation or aortic dissection should be considered.

The best diagnostic test is a CT angiogram of the aortic arch and upper limb vessels. 

Answered by:
Dr. Brett Heilbron

The best diagnostic test is a CT angiogram of the aortic arch and upper limb vessels.

This Mother's Day



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