

One of the major health problems we face at present is cardiovascular disease. Lot of money and time has been spend both on the management and prevention of coronary artery disease (block in the blood vessels supplying the heart muscles). There are multiple risk factors leading to development of coronary artery disease like presence of diabetes mellitus, hypertension, smoking, physical inactivity, age and variation in cholesterol levels. High cholesterol levels resulting from genetic factors, diet containing high fats and low physical activity are the major issues. The type

and amount of oil used by the society is influenced by the availability, tradition, income and to a certain extend health awareness. Oils containing high levels of saturated fatty acid increases the cholesterol levels. Coconut oil is classified under saturated fat even though the major content lauric acid is a medium chain fatty acid.

In the state of Kerala compared to other states the incidence of coronary artery disease is high. There are so many reasons like food habits, sedentary lifestyle and consumption of food containing large amount of carbohydrate apart from the genetic reasons. Coconut oil has been used for

cooking for centuries in these state. Coconut oil is considered not heart friendly due to its high content of saturated fatty acids. Many organizations across the globe recommends to reduce or avoid the use of coconut oil in order to maintain the heart health. As far as this state is concerned coconut is one of the major source of agro economy and source of dietary oil for the society. One of the frequent questions we often come across in the clinical practice is about the continuation of coconut oil after the development of a heart attack. It is the responsibility of the scientific community to explore the facts about this important dietary source of oil, hence we

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**Coconut oil and  
the heart health**

conducted few preclinical and clinical studies at Amrita Institute of Medical Sciences, Kochi.

Large population in Asia Pacific region also uses coconut oil as source of dietary fat and their agro economy depends on the cultivation of coconut. As of now there is no quality data to prove the link between the coconut oil and cardiovascular health. There are multiple epidemiological and interventional studies on coconut oil but none of them are conclusive because of many confounding factors.

In this context, Amrita Institute of Medical Sciences conducted few studies to assess the role of coconut oil and cardiovascular risk factors. In the first study we have harvested the inner layer of blood vessels that supplying the heart muscles in those undergoing bypass surgery. The fats deposited were subjected for chemical analysis to find out whether there is any difference among the patients using coconut oil or other oils. There was no difference in the fatty acid contents of material deposited in blood vessels of patients using different dietary oils.

In the second study we estimated the cholesterol content and few parameters on oxidative state and diabetic control in different sets of patients using different kind of oils. In this study we found that there is no statically significant difference in the cholesterol and other parameters in those patients using coconut oil compared to other oils.

The third study was an animal study where few Newzeland white rabbits were fed with diet rich in coconut oil butter and normal food. After four weeks we analysed the cholesterol levels in these rabbits and found that there was no difference in lipid profile

These above mentioned studies were not adequate to answer the clinical dilemma of continuation of coconut oil after the heart attack hence we decided to conduct a study involving patients who had heart attack in the past.

For this study we selected patients who had heart attack, angioplasty



Coconut oil as a cooking oil media doesn't affect the serum cholesterol and associated risk factors in coronary artery disease patients along with standard medications.

or Bypass surgery in the past. These patients were categorized into two groups containing hundred patients each. Initially we estimated all the cholesterol related parameters, exercise test and a special test called vascular response. One group of patients were advised to take coconut oil at the same time sunflower oil were allocated to the other group and advised them to continue the particular oil for two years. These patients were called at regular intervals and their symptoms, blood cholesterol, cholesterol carrying proteins in the blood, blood sugar control, exercise level, the dose of statin medication to control cholesterol and blood vessel response were studied. At the end of two years and there was no difference between these two groups as far as there cholesterol levels and other parameters are concerned. There was no need to change the dose cholesterol controlling pills in coconut oil when compared to sunflower oil arm. This was the first long term study involving such a large number of a patients.

This study has shown that continuation of coconut oil after cardiac event while on medication is safe.

This study conducted on patients receiving cardiac drugs and they had consistent check-up hence could not extrapolate the outcome when used in community living people not on any medication To overcome this limitation we are planning a large study involving the subjects living in the community from different countries to assess the effect of coconut oil on heart health. ■