

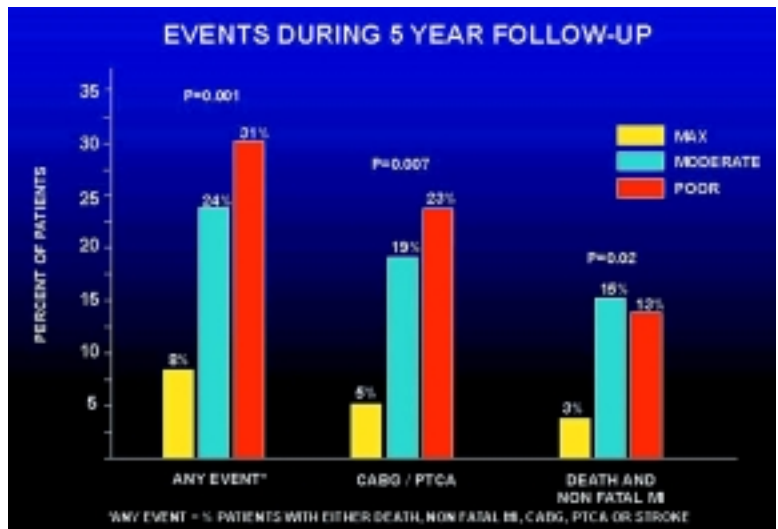
## Major Cardiology Journal Publishes Benefits of Intense Lifestyle Combined with Drug Treatment in Heart Disease

In the January 15 issue of the Journal of the American College of Cardiology, an article by our group including first author, Stefano Sdringola M.D. was published with our PET scans on the cover page. This study is the first to demonstrate with long-term follow-up that intense risk factor treatment combining very low-fat food, weight control, and regular exercise plus lipid active drugs dosed to target goals markedly reduces heart attacks, deaths, revascularization procedures, and size/severity of blood flow abnormalities in the heart.

“The real lesson of the study is that there’s a certain effect with a lifestyle change and there’s a certain effect with medication, but when you put the two together, there’s a profound benefit on survival, much greater than either of these steps alone” says K. Lance Gould, M.D. There have been numerous studies showing modest benefits of exercise, of diet, or of cholesterol-lowering medications separately, but no studies had combined them together.

Our study examined the habits of 409 patients with heart disease comparing the outcomes in 3 groups of patients: 1) those undergoing intense risk factor management (Maximal Treatment) consisting of strict low fat diet, weight control, exercise and lipid active medications dosed to strict target cholesterol goals, 2) those that followed the American Heart Association Diet (20-30% fat) and took some lipid drugs (Moderate Treatment) not dose adjusted to target cholesterol levels and 3) those that were not on a diet or lipid medication or were actively smoking (Poor Treatment).

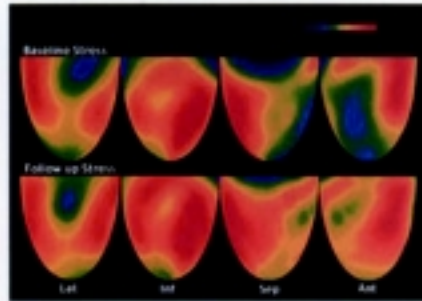
Blood flow to the heart muscle on PET scans improved in the Maximally treated group and worsened in the Moderate and Poor Treatment Groups. After 5 years of follow-up, coronary events (heart attack, death, bypass surgery or balloon dilation) occurred in 6.6% of the Maximally treated patients, compared to 20.3% of the Moderately treated patients, and 30.6% of the Poorly treated patients. The study concluded that Intense lifestyle and pharmacologic lipid treatment reduce size/severity of myocardial perfusion abnormalities and cardiac events compared with usual-care and cholesterol-lowering drugs alone.





# Journal of the American College of Cardiology

January 15, 2003  
Volume 41  
Number 2



Three-dimensional topographic diphasic PET with improved perfusion following treatment. Upper row is baseline and lower row at follow-up. Red is highest flow and blue is lowest.

This study is the first to show the added benefit and importance of lifestyle changes in addition to the benefits of statin drugs alone.

Although some improvement develops rapidly, the data also suggests that approximately 2 to 2.5 years of intense combined lifestyle and pharmacologic treatment are required before achieving full benefit of reduced cardiac events and mortality. During this initial period of intense treatment, changes in myocardial perfusion by PET show responses to treatment and predict outcomes over the subsequent five years as a guide to treatment before cardiac events occur. Therefore, the PET study not only identifies the problem but also demonstrates the effectiveness of treatment and predicts the outcomes over the next 5 years.

“Our program has always stressed the importance of good lifestyle, as well as medications in treating heart disease” says Gould, “but publishing this hallmark study provides solid scientific proof that we are making a significant impact on coronary heart disease in individuals.”

This scientific paper making such prominent, front cover display on THE Journal of the Cardiology profession culminates 30 years of Dr. Gould’s research and technology development. However, it also lays the scientific foundation for the next step in improving the management of coronary atherosclerosis. Further work is planned to find coronary atherosclerosis even earlier and to identify cholesterol plaque at risk of imminent breakdown that causes heart attack thereby indicating more rapid alternative treatment.



Stefano Sdringola M.D.

