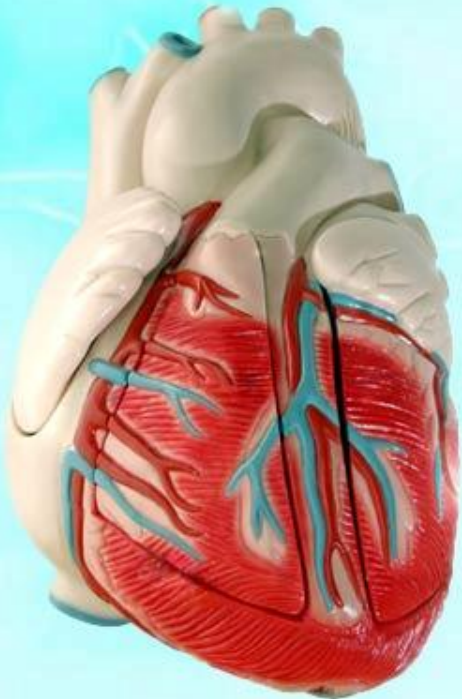
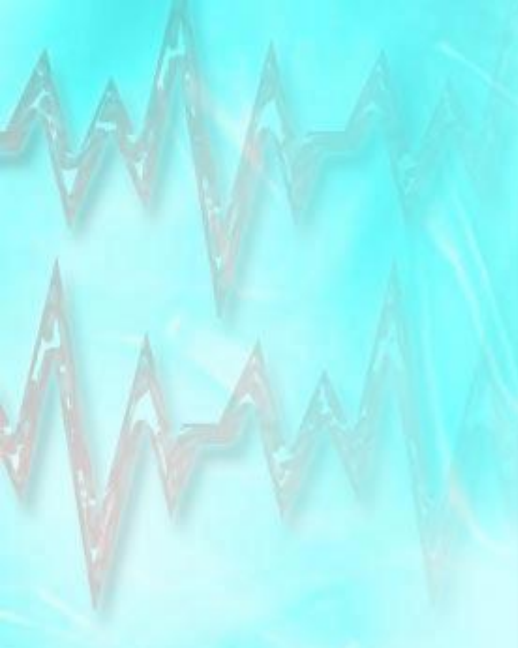


# **Biochemistry of Cardiovascular Diseases**

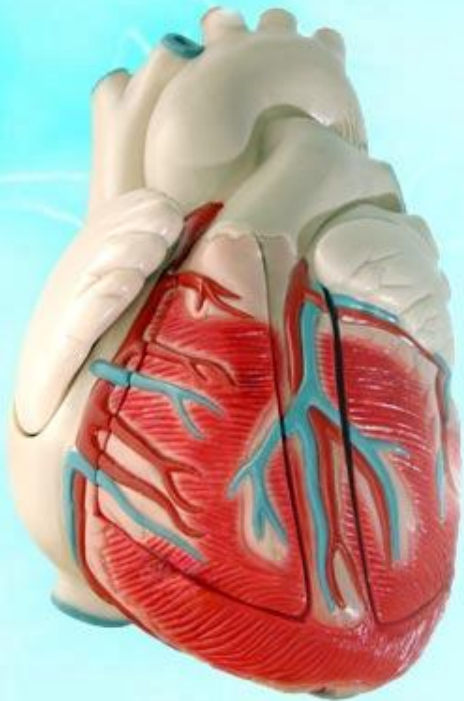


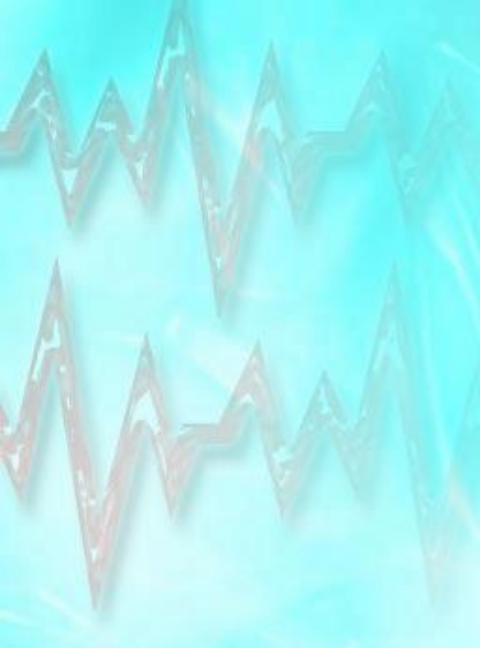
**Heart Disease  
The REAL Cause  
The REAL Answer**



**During the last 20 years, USA and many other countries have followed the 'low fat diet' despite this suggestion, heart disease has not diminished.**

**Furthermore, one of the important factors in heart disease, obesity, has risen during that same period, in greater numbers.**

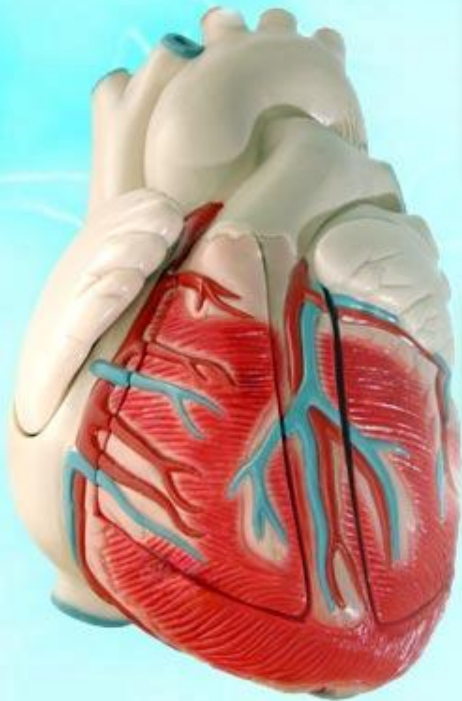




**Are there answers to heart disease other than by-pass surgery? Like most chronic disease conditions, it's cause lies in an altered biochemistry.**

**When the biochemistry is corrected, the disease process is interrupted .**

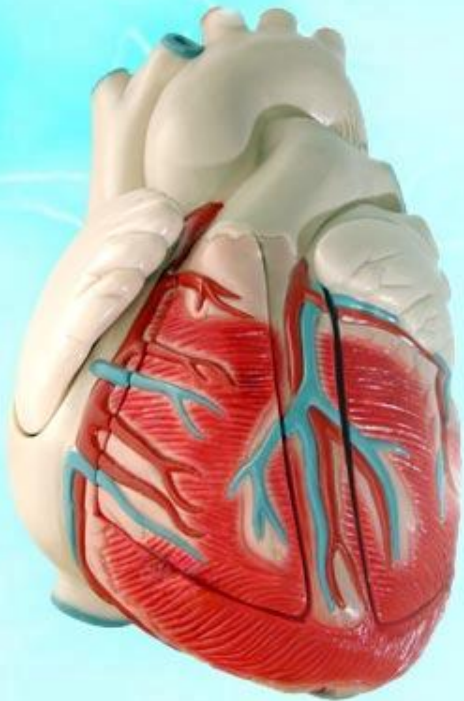
**At the top of this change in biochemistry must be the diet.**

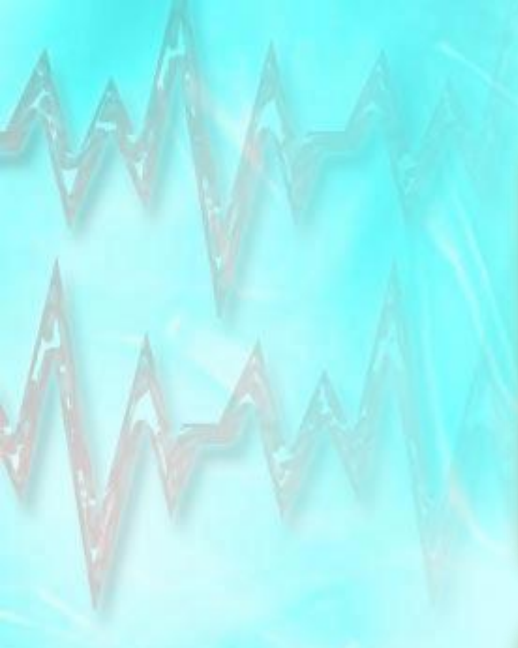


**The dietary recommendations of the American Heart Association have failed in decreasing the epidemic of heart diseases..**

**Yet this protocol, is still applied in every medical center in the world to watch the Cholesterol, reduce the intake of animal fats and to eat less protein and eat more starch**

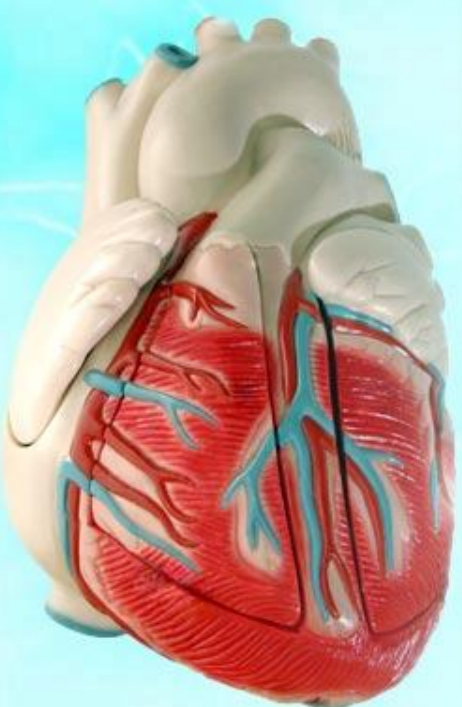
**Most of previous studies or previous theories blame cholesterol.**





**further, there has never been even one clinical study to show that Cholesterol has ever been the real cause.**

**The real cause of Heart Disease was first identified in 1974.**



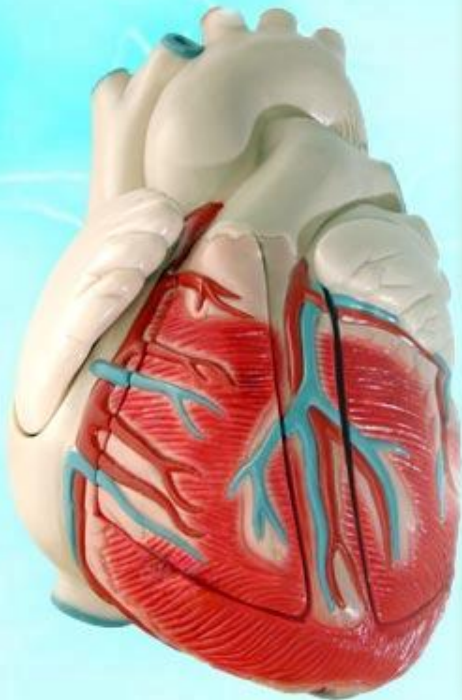
**Yet despite this discovery 36 years ago, NOTHING has changed in the programs to prevent or manage this condition.**



**Through the application of medicine's reactive methods to this Chronic Disease, the by pass operation was developed.**

**While this procedure can save lives in an emergency, it does NOTHING to stop the progression of the illness.**

**leaving most bypass patients facing the same procedure again in five to seven years.**

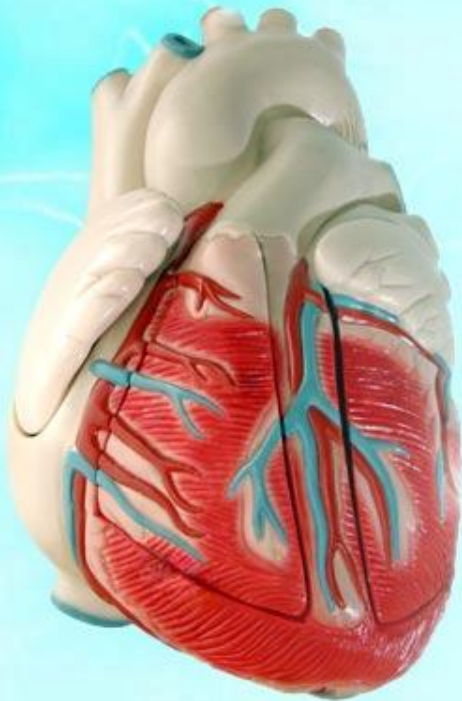


## Historical Review

**As the twentieth century passes it was the century of the heart attack.**

**Prior to the twentieth century, Coronary thrombosis, or the 'heart attack', was virtually unknown.**

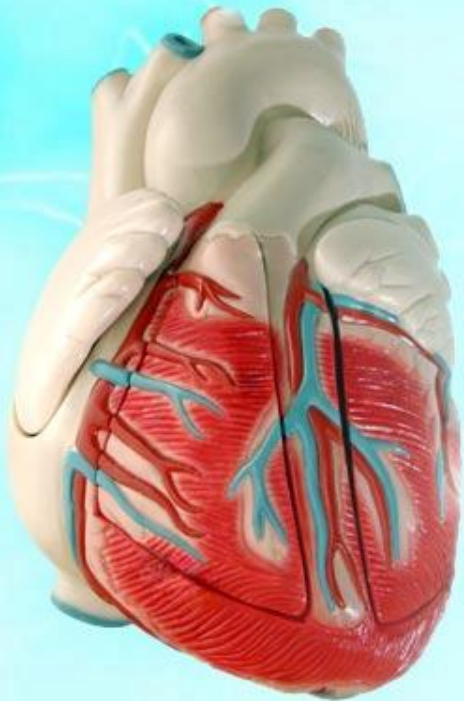
**This new century will bring a greater awareness of the real causes of this problem**



**Death rate from Coronary thrombosis in 1890 was roughly zero, no recorded cases.**

**Even as late as 1914, the four most common forms of heart disease Were:**

**Rheumatic, Hypertensive, Enlargement, and Syphilitic with no mention of heart attack**

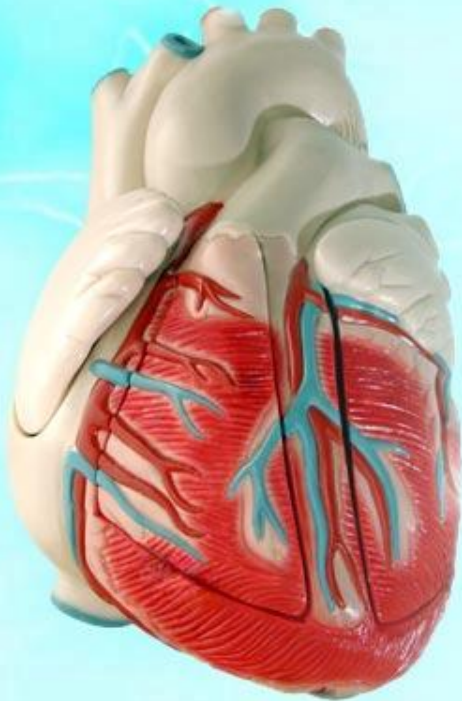


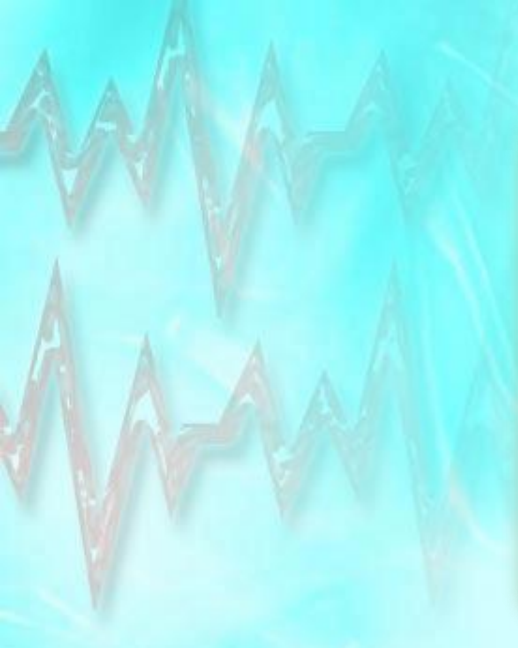


**In the 1930's, the four most common forms where Hypertensive, Coronary, Rheumatic and Syphilitic.**

**Suddenly, Coronary heart disease makes its appearance**

**By the early 1970's, deaths from Coronary thrombosis rose to almost 340 per 100,000 people, killing more people than all other forms of disease put together.**

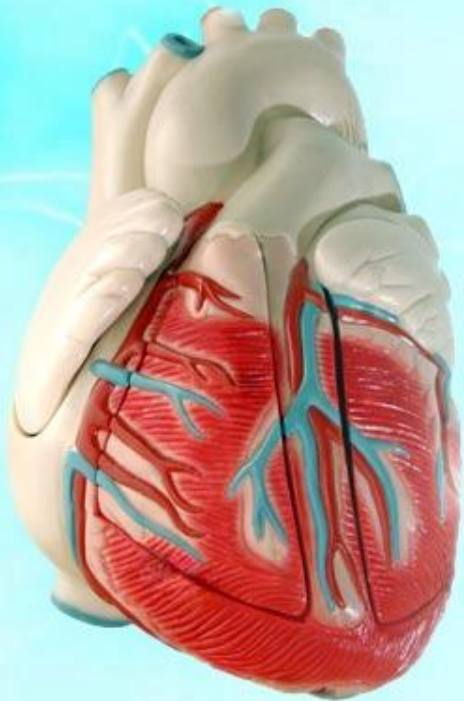


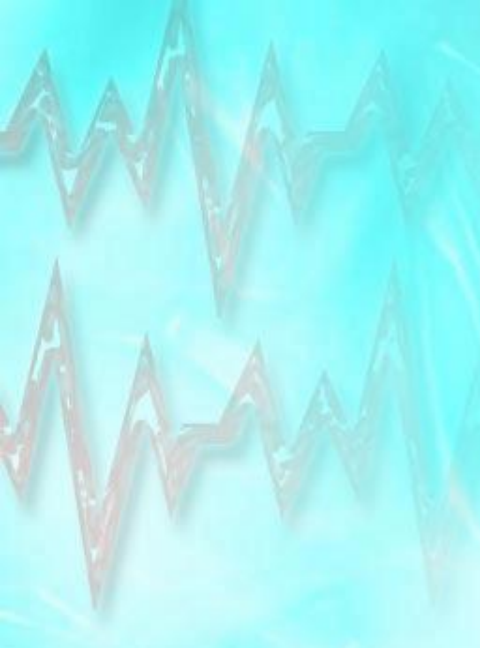


**By 1996, deaths from heart disease dropped to 135 per 100,000 giving rise to the medical industry's claim that they are beating this condition.**

**A closer look at the statistic, however reveals a much different picture.**

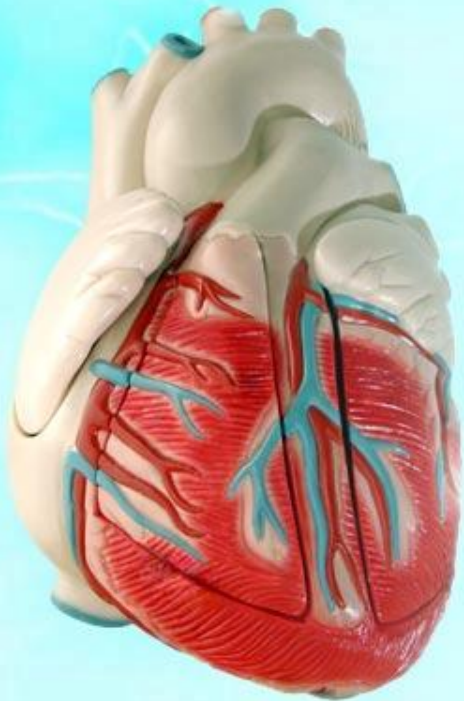
**Death rates have dropped dramatically due to the by pass operation, rather than the new drugs.**





**heart attacks have been the leading cause of death for only the last thirty years, killing over 700,000 people annually,**

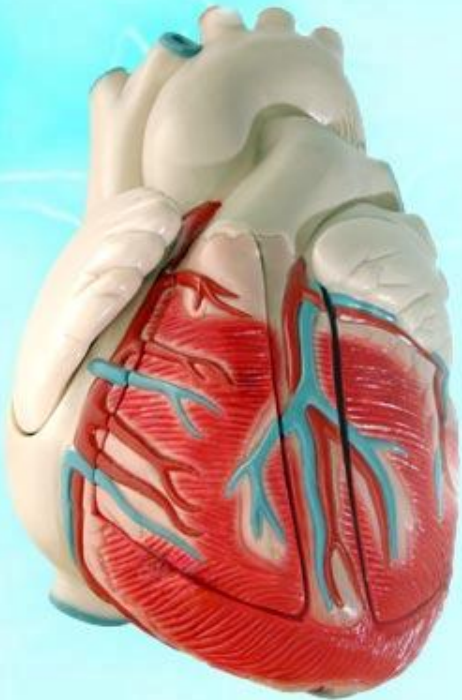
**compared with the two or three who died of the same cause in 1900.**

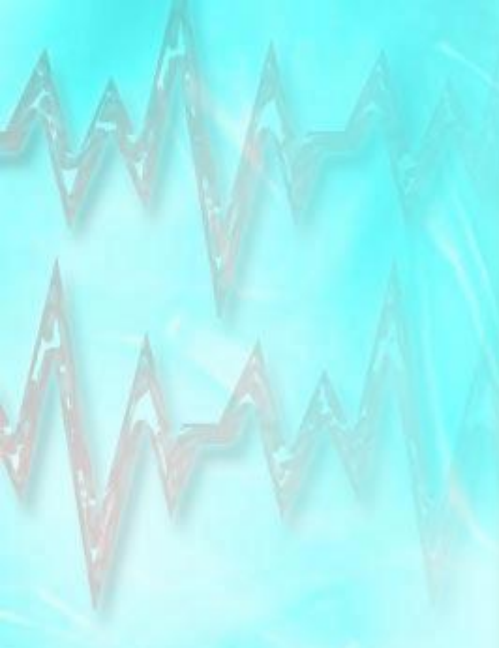


**What is the real cause of the epidemic?**

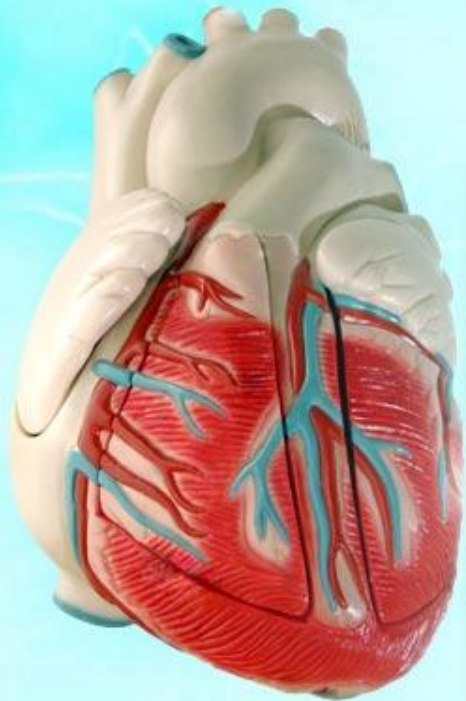
**Present research shows that deposits form on arterial wall, eventually occluding them Completely.**

**As a result of a proliferation of cells within the arterial wall rather than the deposition of cholesterol.**

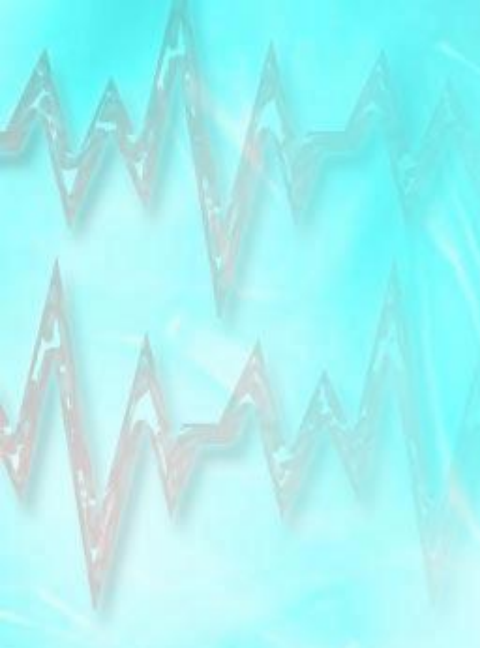
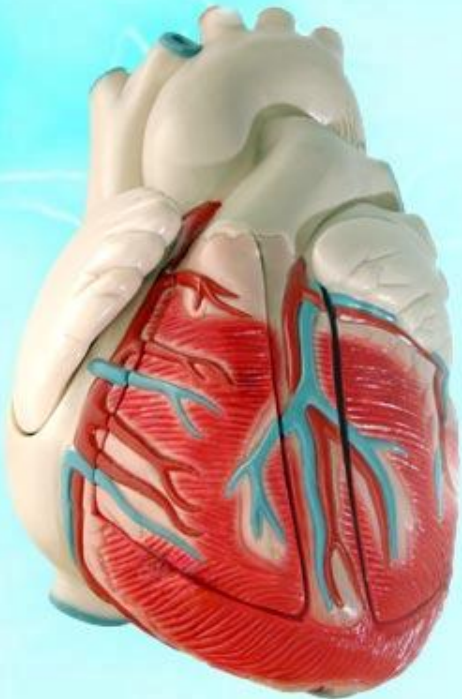




**1970-- 1974. Earl P. Benditt and his associates at the University of Washington School of Medicine clearly shows that the cells in the arterial wall proliferate because of a mutation in their DNA .**



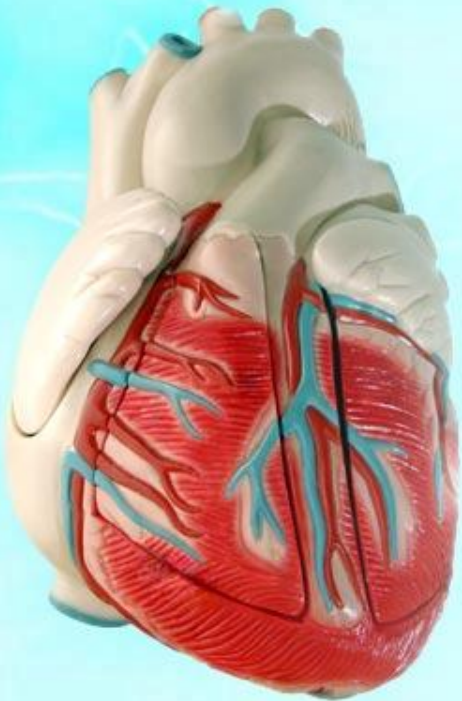
**This altering of the structure of DNA is caused by a variety of factors such as cigarette smoke chemicals, low-level radiation, and most importantly, Free Radicals from certain foods.**



**1975 Robert Heptinstall at the Johns Hopkins school of Medicine confirmed the previous finding that no one single factor can lead to heart disease.**

**But when two or more of these factors are present at the same time, heart disease is a distinct possibility**

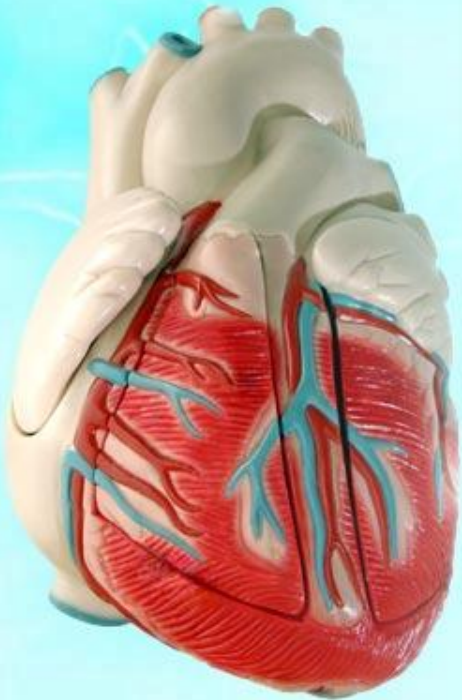
**The lifestyle with its lack of exercise, poor food quality, radiation , chemical poisoning, and excessive stress all add up to the perfect environment for an epidemic of Coronary Thrombosis**




## **What About Cholesterol?**

**The American Heart Association,  
put the concept that Cholesterol  
causes heart disease.**

**Therefore, in order to reduce it,  
less Cholesterol must be  
consumed.**



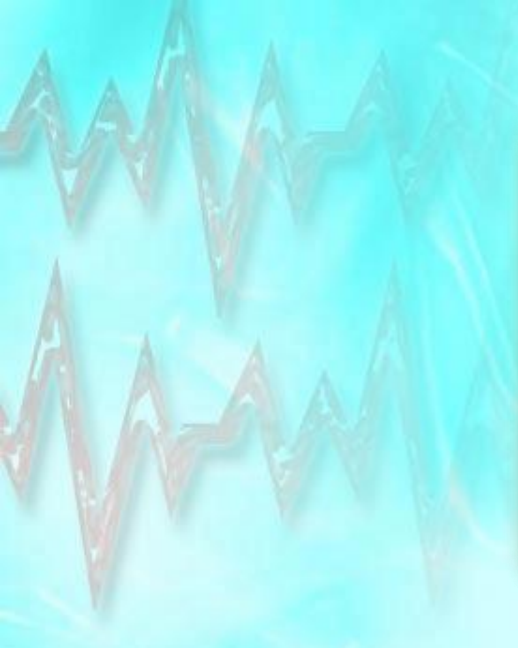




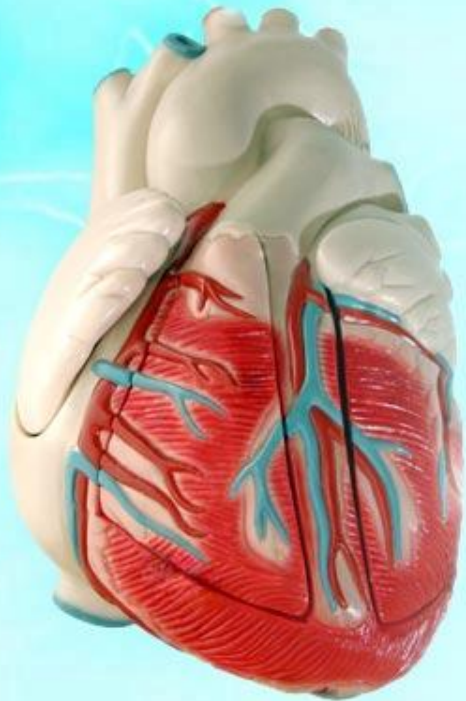
**The following studies have shown that low-cholesterol diets do not reduce heart disease:**



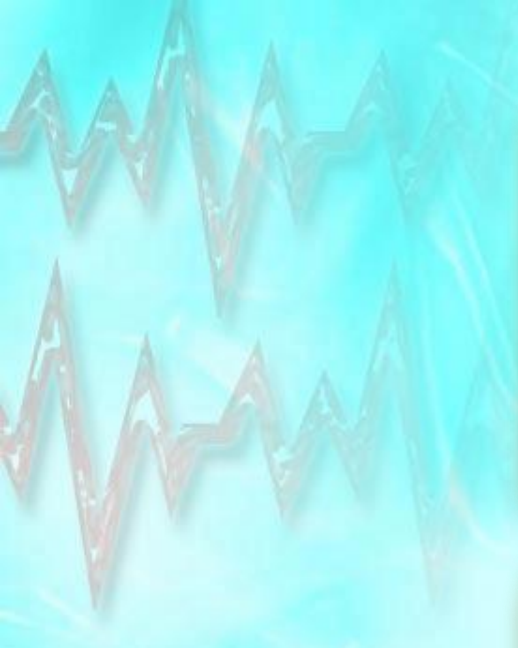
**St. Mary's Hospital Trial, The National Diet Heart Study, The London Research Committee Trial, The Ireland-Boston Heart Study, The Framingham Study**



**Obesity is a real factor in the development of heart disease and therefore a diet high in both fat and sugar is very unhealthy.**



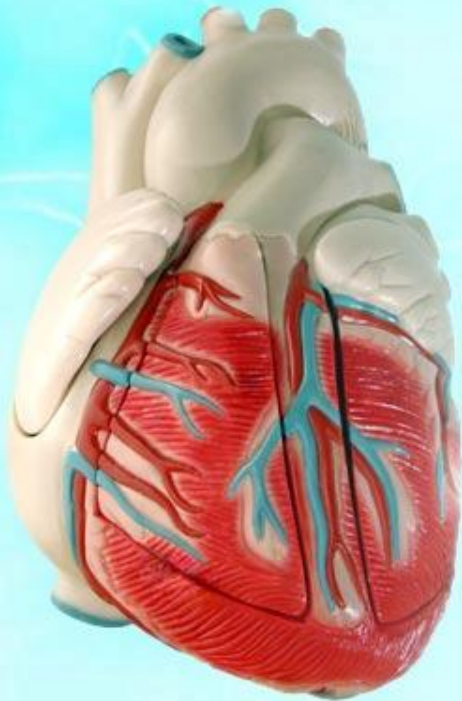
**What is really need to be discussed and explained is that before the turn of the last century heart disease was virtually unknown, yet their diet was higher in fat than ours.**

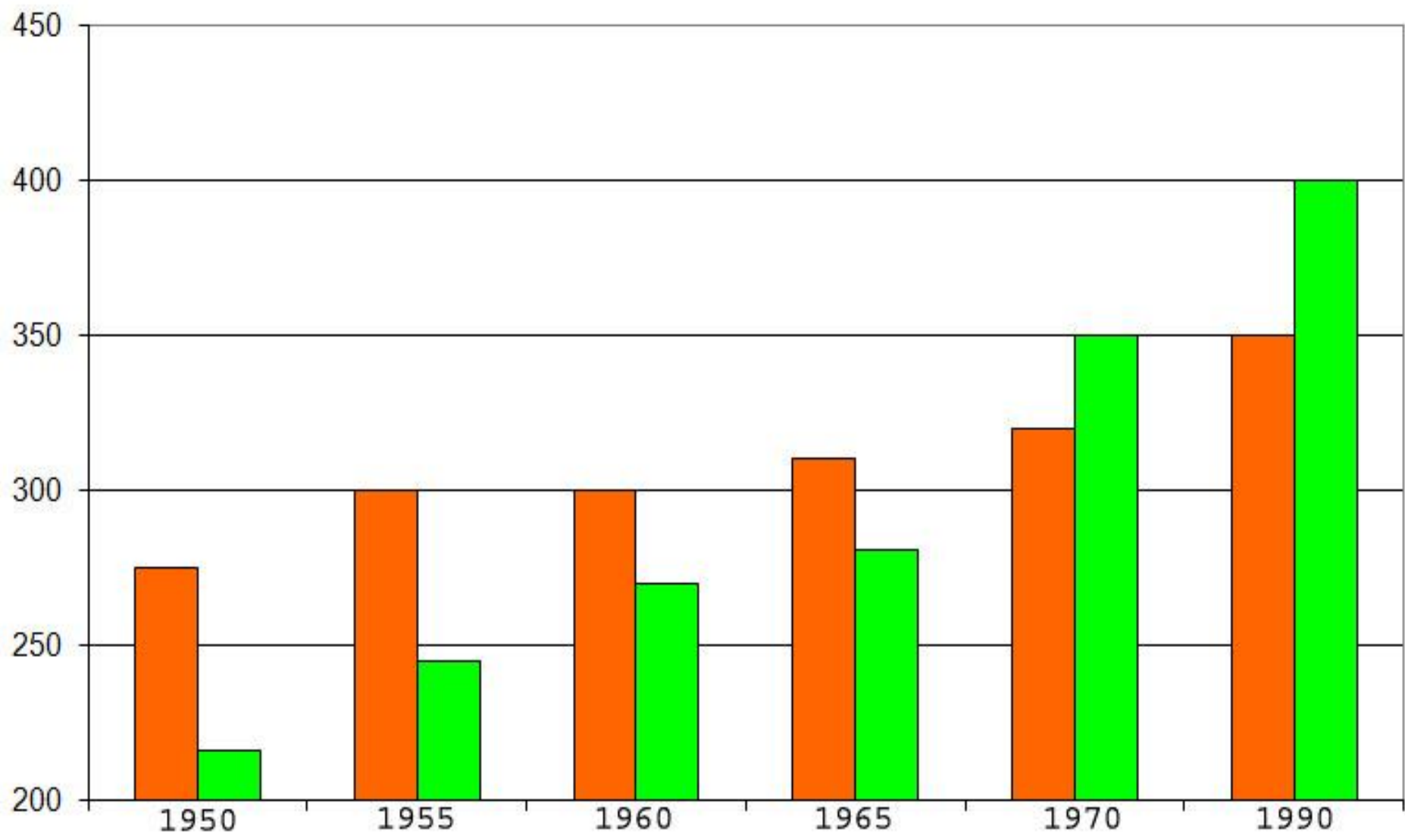


**Their food was butter and other natural fats and saturated one. Vegetable oils were not available commercially**

**the rise in heart disease is increased at the same rate as the consumption of vegetable oils.**

**It is interesting to note charting the rise in heart disease, it increased at the same rate as the consumption of vegetable oils.**



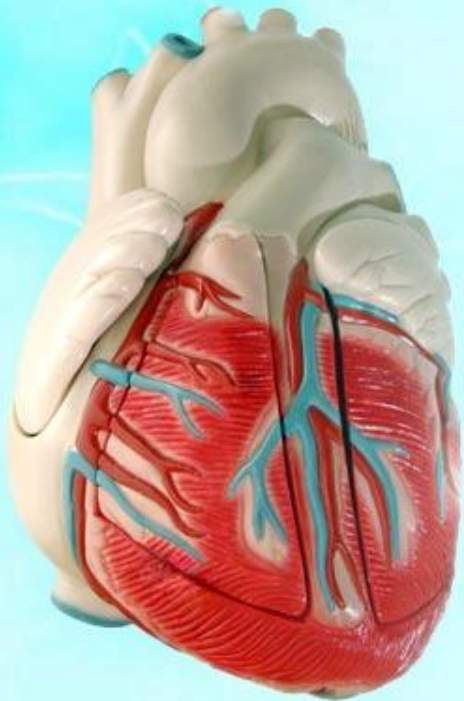


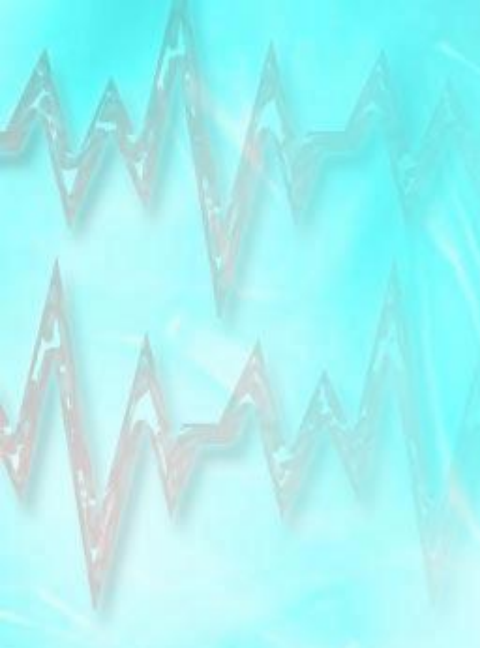
Consumption of oil per person per year      Deaths per year from heart disease

**Correlation between egg consumption  
and deaths from heart disease:**

**Clinical studies have shown that a  
diet high in eggs, and other quality  
protein foods, being low in sugars  
and sugar-forming foods,**

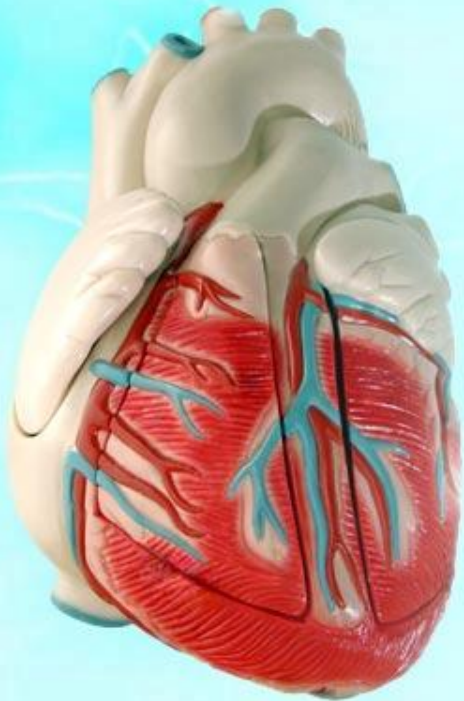
**can lower 15times Cholesterol  
levels in the blood faster than all  
the leading drugs combined.**

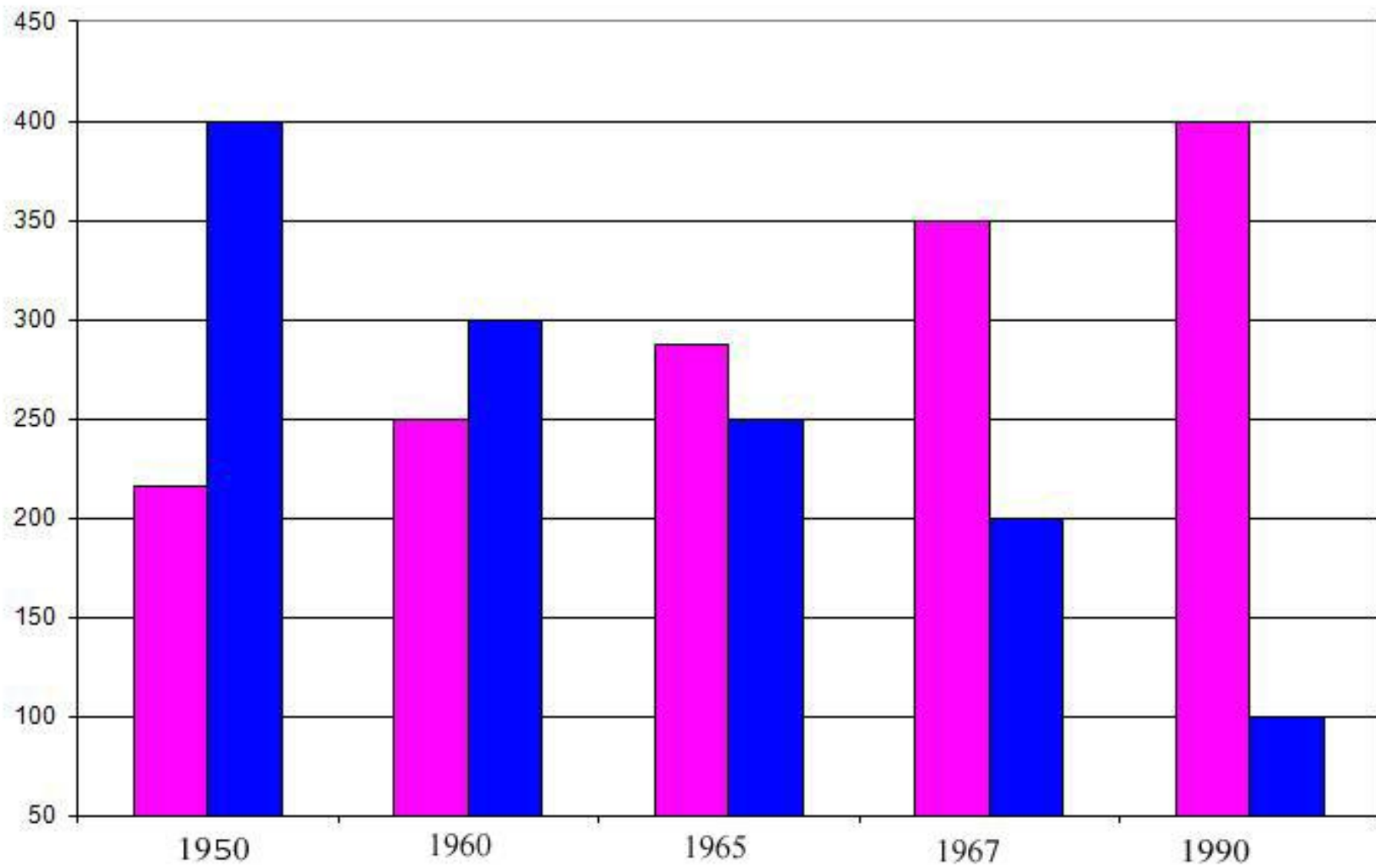




**as egg consumption  
decreased, Coronary Heart Disease  
increased by nearly the same  
opposite rate**

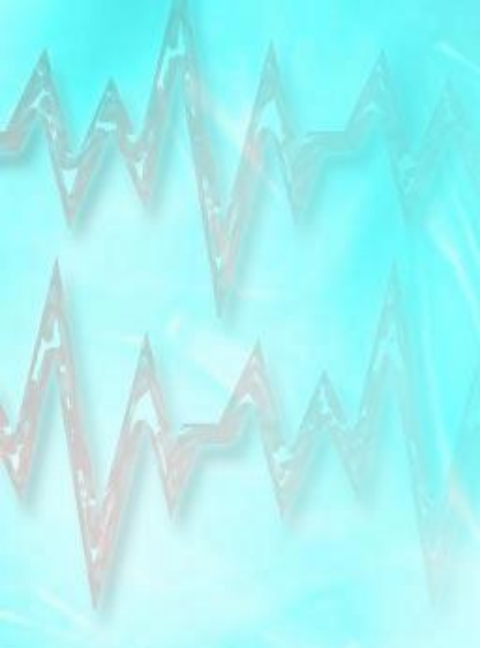
**egg contains a substance called  
Lecithin, which naturally  
metabolized the fats in eggs  
including the Cholesterol.**





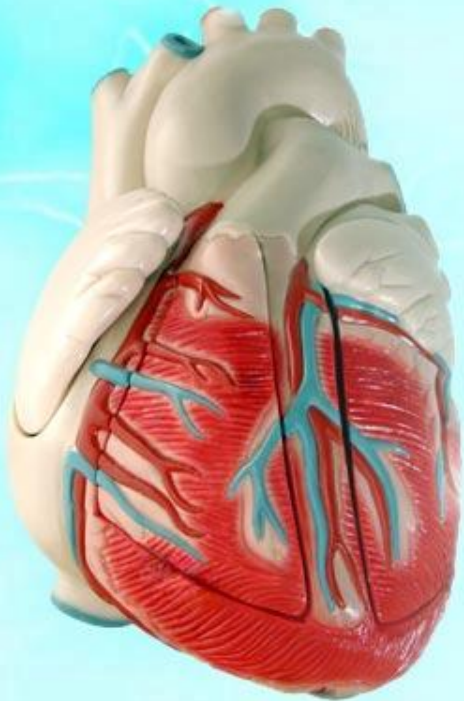
■ Deaths / 100.000 from Coronary Heart Disease

■ Eggs consumed per capita



**Cohort study that has specifically examined the relationship between egg consumption and CVD included 37,851 men and 80,002 women who were free from chronic diseases .**

**those eating >7 eggs/week (as compared with those consuming <1 egg/week) had no increased risk of CVD or**



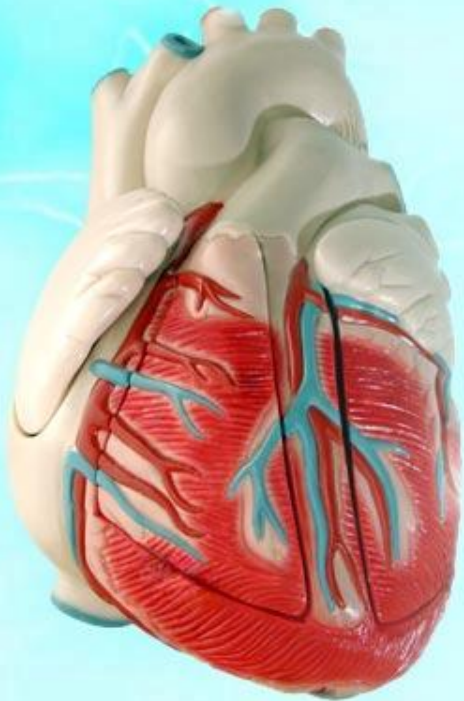


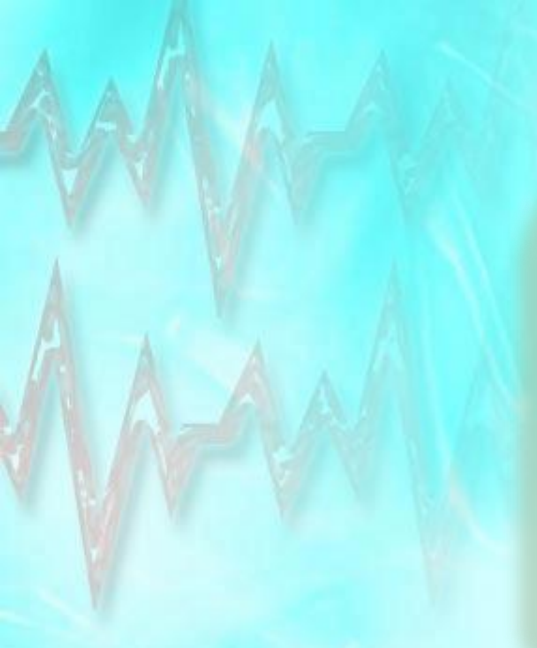
**stroke in either healthy men or women.**

*Medical Science Monitor*, vol. 13, no. 1, pp. CR1–CR8, 2007

**Another study by Stamper et al 1999 (JAMA)**

**significant increases in HDL-C in subjects given 2 or 4 eggs daily with the absence of an increase in plasma cholesterol,**



An ECG (heart rate) waveform is visible in the upper left corner of the slide, rendered in a light blue color against the background.

**Daily intake of 3 eggs significantly increases adiponectin that is both anti-inflammatory and antiatherogenic hormone**

An anatomical illustration of a human heart is positioned on the left side of the slide. It shows the major blood vessels, including the coronary arteries and veins, in red and blue.

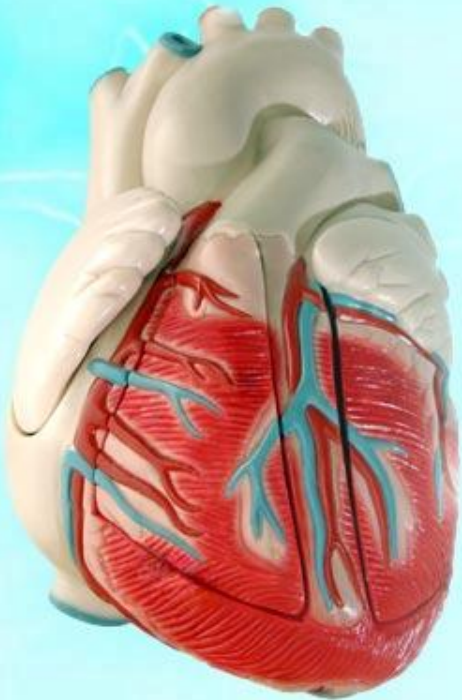
**with the decrease in the LDL-C to HDL-C ratio may provide protection against development of CVD.**

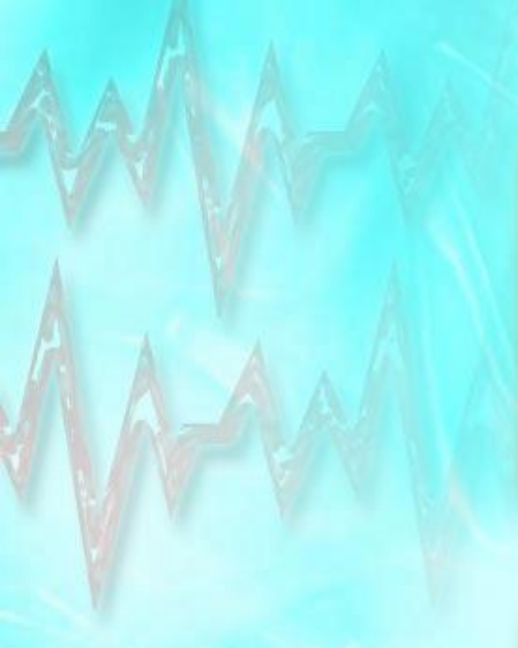


**If Cholesterol is OK ...  
What's the Problem?**

**The DNA carries the genetic code.  
When this DNA is attacked by  
chemical Free Radicals,**

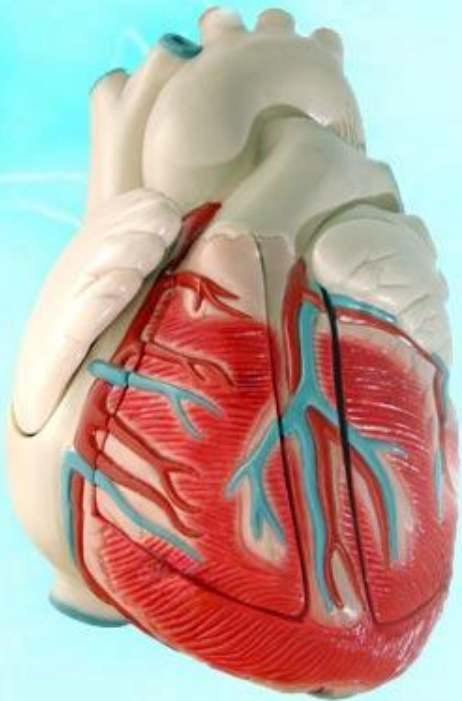
**they can change or mutate the  
DNA of specific cells, causing them  
to multiply out of control.  
(Just like cancer)**

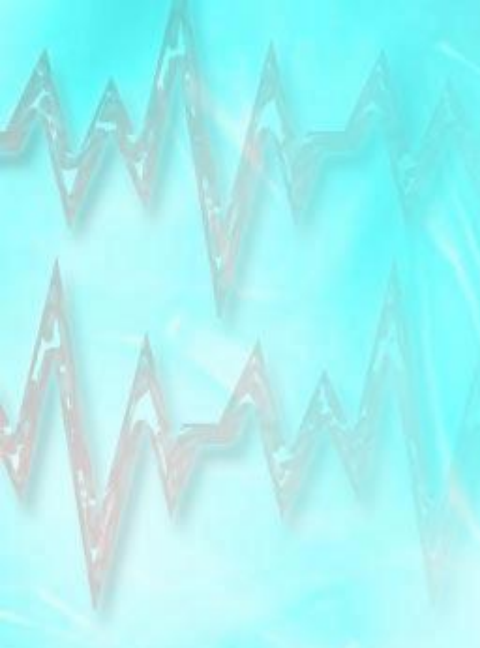




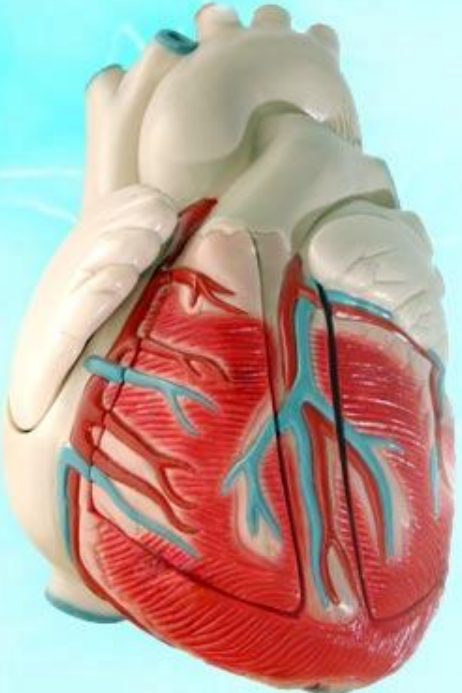
**There are numerous Free Radicals formed in the body under various conditions,**

**but the specific Free Radical action that appears to attack arterial muscle tissue comes primarily from the oxidation of polyunsaturated vegetable oils.**

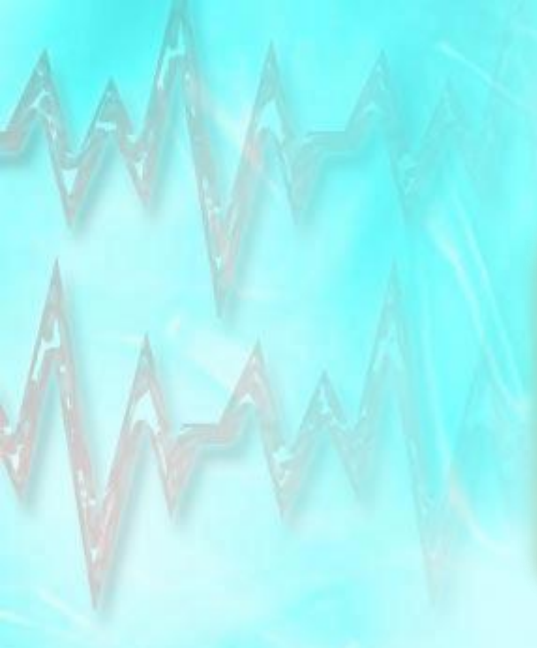


An ECG waveform is visible in the upper left corner of the slide, showing a regular rhythm with distinct P waves, QRS complexes, and T waves.

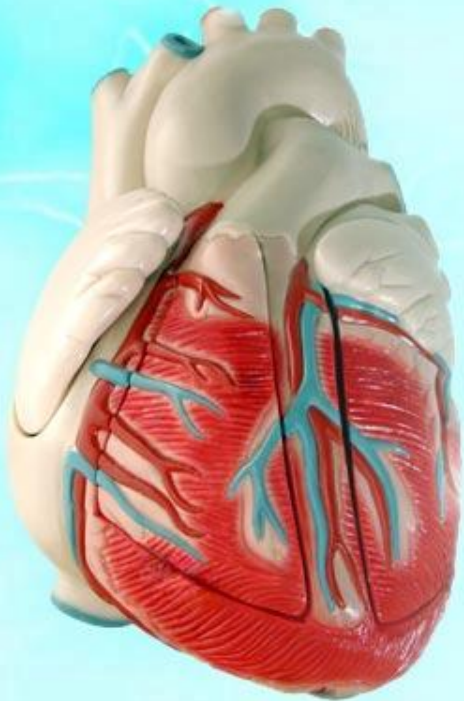
**This would explain why Heart Disease has risen at roughly the same percentage rate as the consumption of these oils.**

An anatomical illustration of a human heart is shown on the left side of the slide. The heart is depicted in a frontal view, with the coronary arteries and veins clearly visible. The color scheme is realistic, with red for the oxygenated blood vessels and blue for the deoxygenated ones.

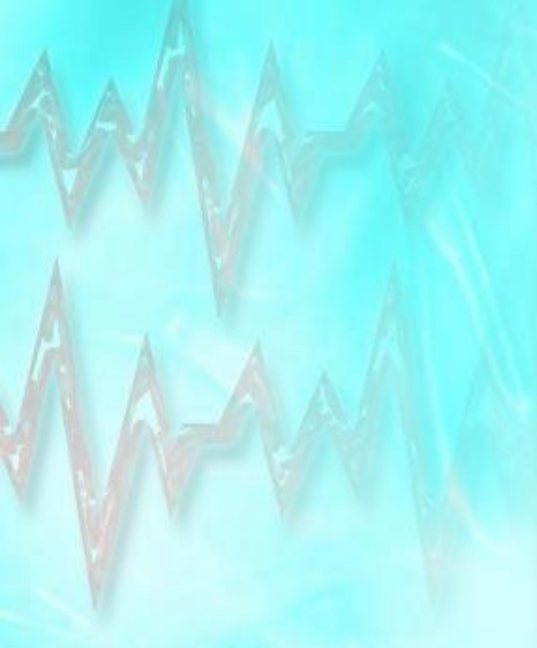
**Further, the heating of vegetable oils accelerates the Free Radical formation a thousand-fold.**

An ECG (heart rate) waveform is visible in the upper left corner of the slide, showing a regular rhythm with distinct P waves, QRS complexes, and T waves.

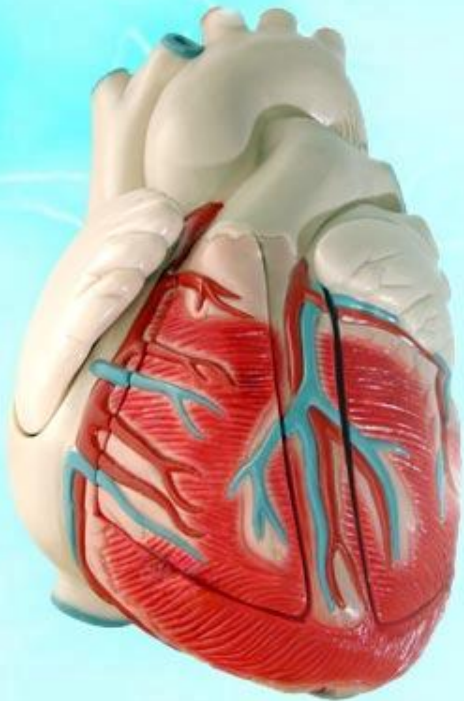
**Free Radical attaches itself to intima and begins to drill a hole into the inner layer of the artery.**



**Once it reaches the middle muscular layer, it attaches itself and begins to alter the structure of the cell through gene mutation.**



**One of the characteristics of these mutated muscle cells is that, similar to Cancer cells, they multiply at a much more accelerated rate than the healthy cells around them**

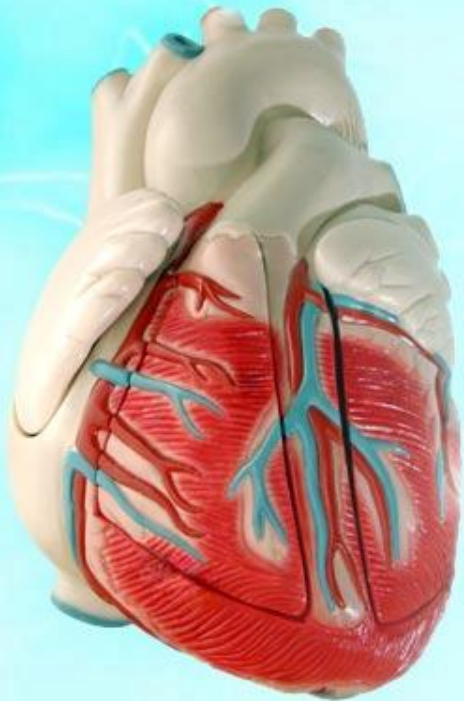


**This creates a thickening of the middle muscle wall of the artery and over time, ruptures the inner wall of the artery, creating a bulge.**

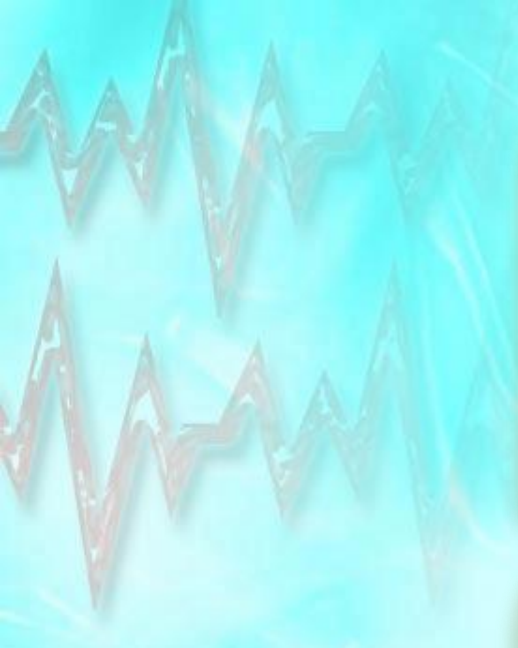
**This concentration of cells causes an increase in the production of Cholesterol at that site.**

**The final step in the disease process is calcification of the artery. Calcium attracted to the fibrous plaque formed.**

**The Calcium is very positive in this divalent form and draws various lipid component**



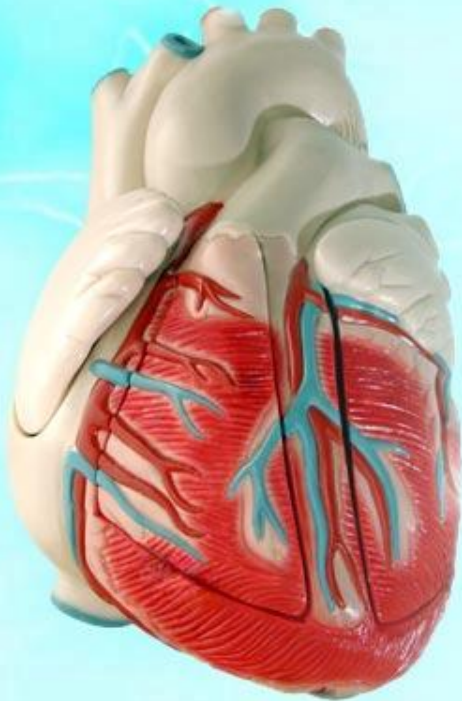




**It is important to understand that even if the Cholesterol levels in the blood are normal or low,**

**it will still be attracted to the Calcium now lining the arteries in strategic places.**

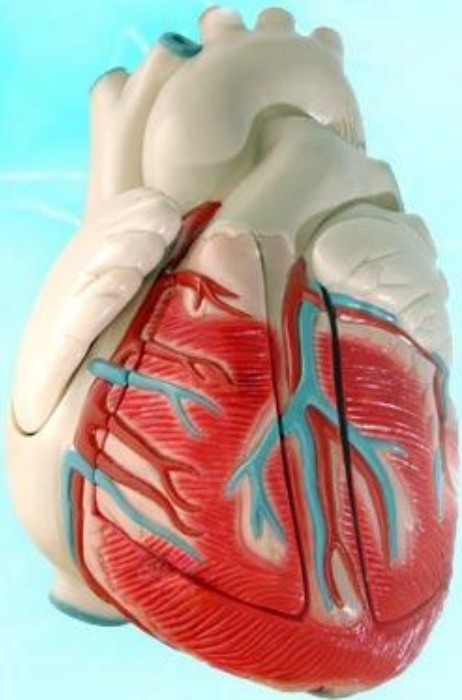
**This explains that Cholesterol does not cause this disease and lowering Cholesterol will not prevent or stop it!**

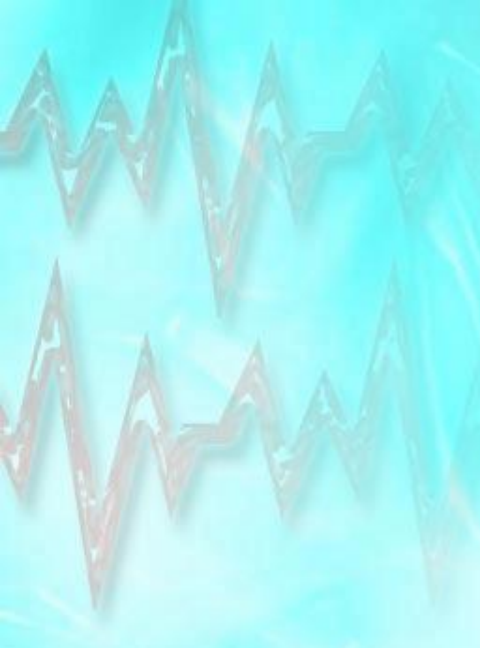


## **The most common causes for Free Radical formation**

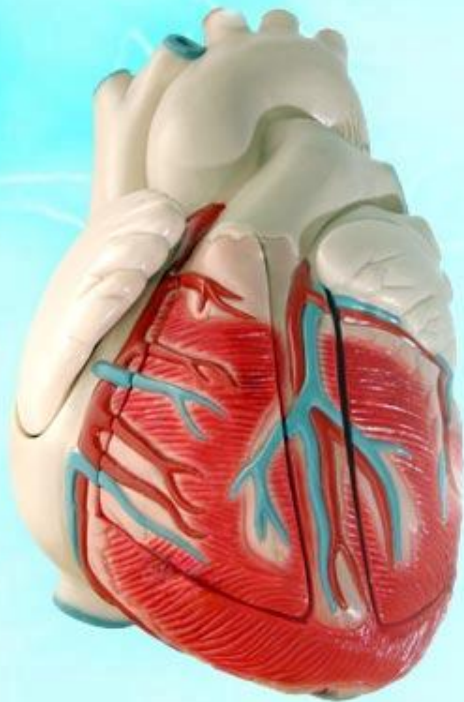
**Consumption of unsaturated oils, especially if they have been heated. Instead, use only olive oil.**

**It may be used cold or heated in cooking with complete safety.**



An ECG (heart rate) waveform is visible in the upper left corner of the slide, rendered in a light blue color against the background.

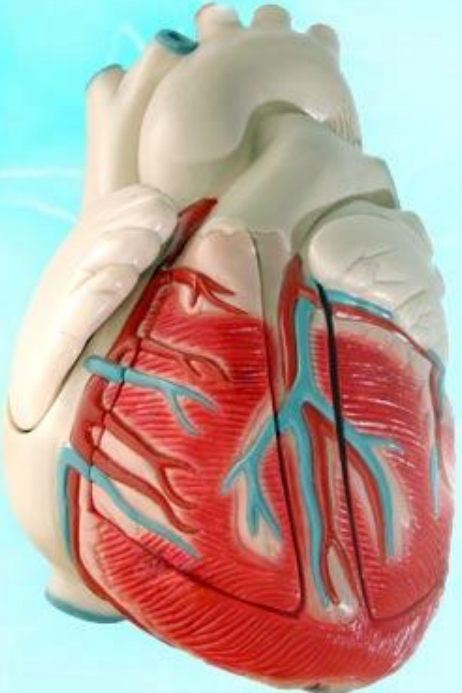
**Smoking cigarettes. Chemicals in the tars, which have been added to cigarettes, are the problem, not the nicotine.**



**Inhalation of toxic chemicals such as, carbon monoxides, etc.  
Exposure to radiation from a variety of sources.**



**As early as 1974, the real dangers of Polyunsaturated Oils began to be realized. Studies at the time Involved animals**

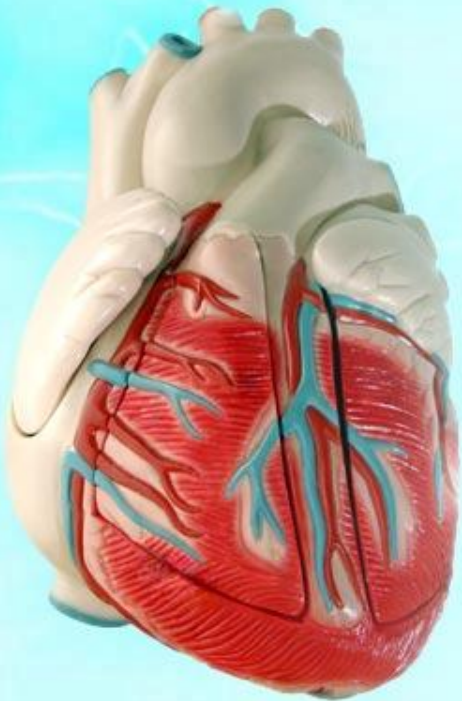


**Researchers found that, the pigs fed on a diet rich with polyunsaturated fats, had the greatest degree of hardening of the arteries.**

**The next greatest group was the one fed a high sugar diet.**

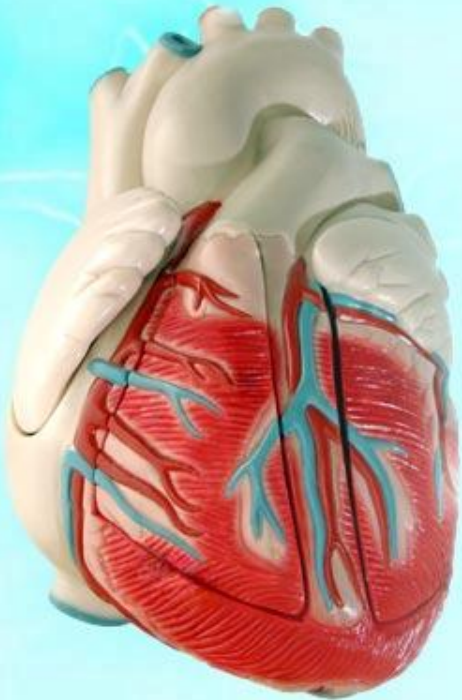
**Conversely, the group fed butter, as the main fat had almost no arterial damage at all.**

**Further, the group fed a diet high in eggs had virtually clear arteries altogether**

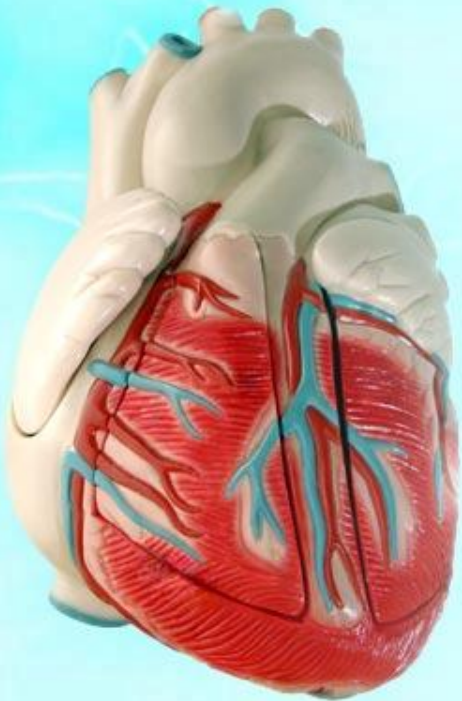


# Heart Disease Prevention & Management Program

**Probably one of the most important nutrients in the prevention of Heart Diseases from many causes is Vitamin E.**

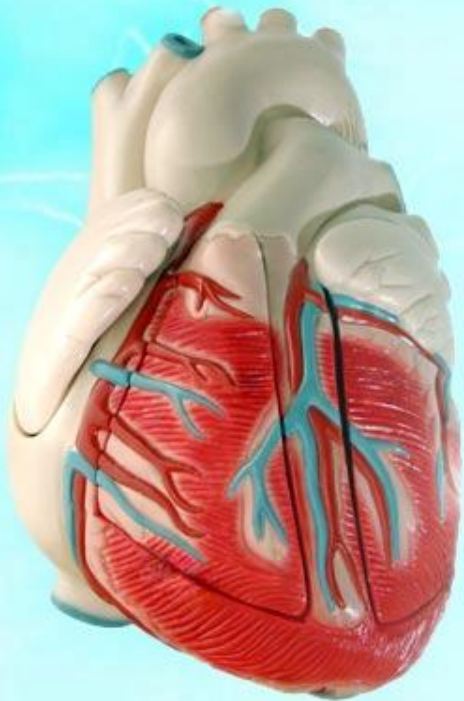


- **Tocopherol is an anticlotting agent.**
- **Tocopherol helps dissolve existing blood clots**



An ECG (heart rate) waveform is shown in the top left corner of the slide, rendered in a light blue color against the background.

**Tocopherol improves the efficiency of the heart, thereby reducing the demand for available oxygen**

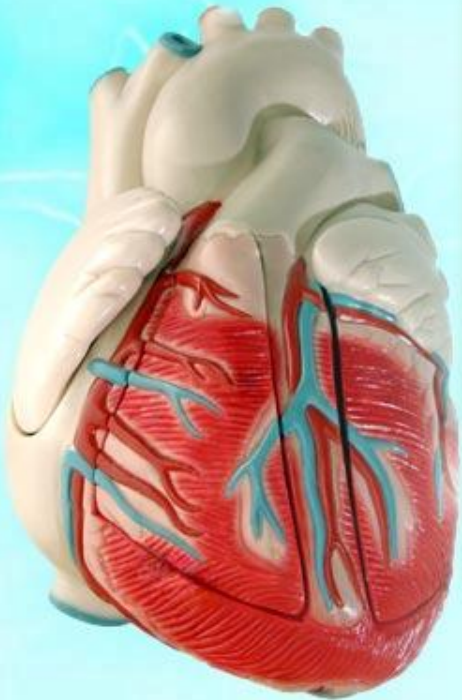


**Tocopherol is a vasodilator and increase capillary permeability**



**Vitamin E has also been shown to be beneficial in the treatment of angina.**

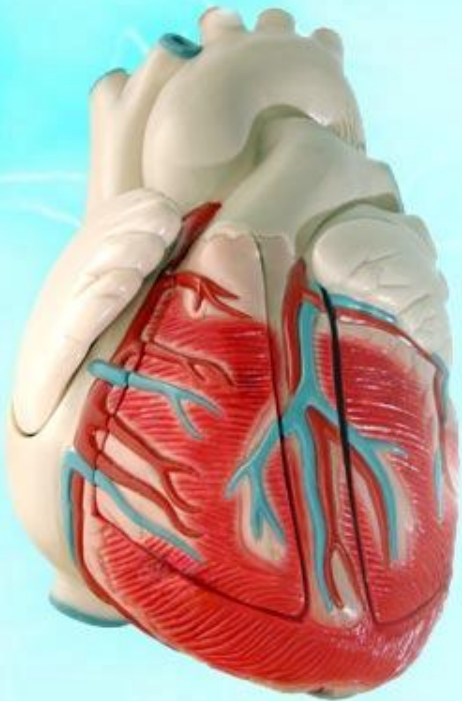
**In a clinical study reported in the New England Journal of Medicine, patients given 400 IU of Tocopherol, were able to reduce their need for Nitroglycerin significantly**

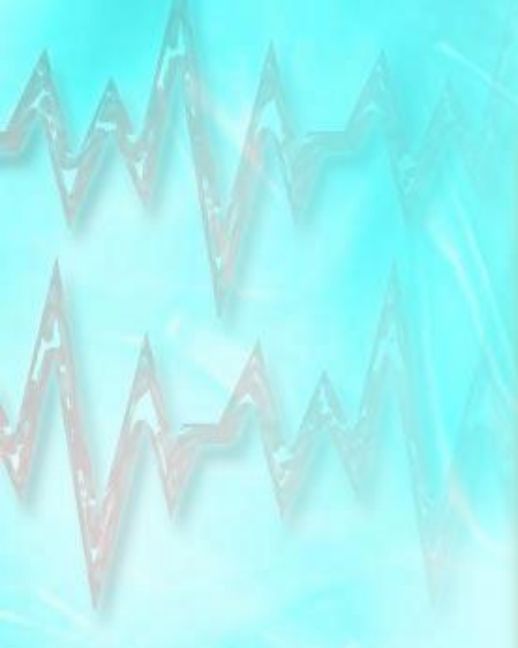


## **Other Anti-Oxidant Nutrients**

**Vitamin C, an antioxidant Vitamin stimulates the production of Lipoprotein Lipase (LPL),**

**which split one of the major component of lipid triglycerides into glycerol and FFA.**

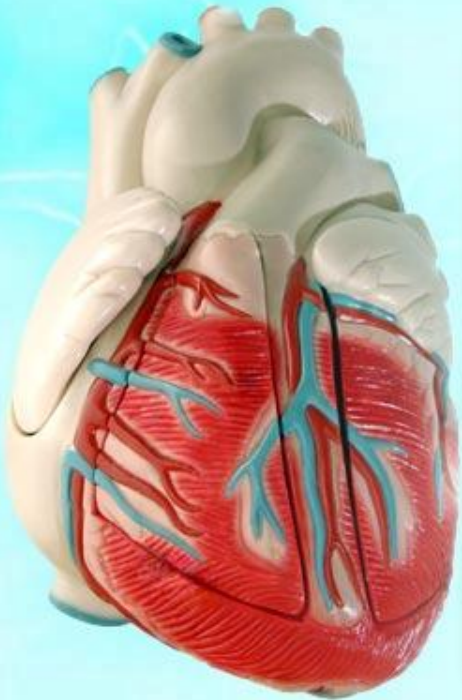


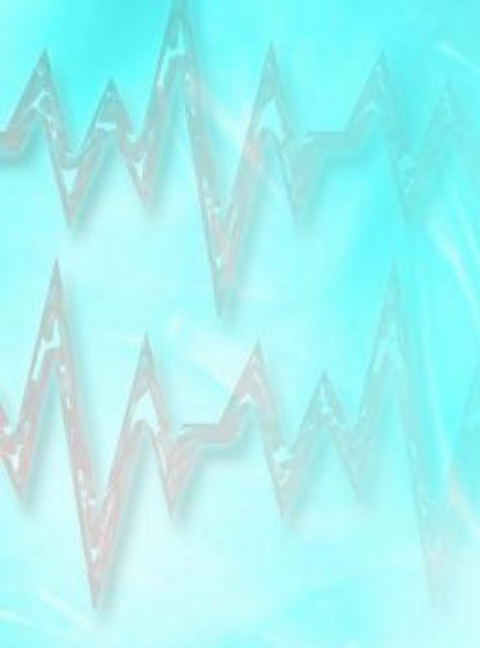


**The B-Complex nutrients, Vitamins B1, B-2, Niacin, Pantothenic Acid, B-6 and PABA, are all-synergistic act with each other and provide antioxidant benefits**

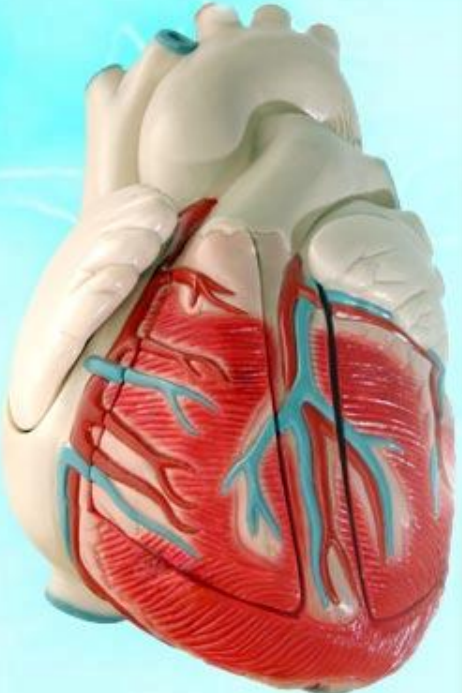
**by preventing the formation of Free Radicals within the body.**

**The mineral, Selenium, is one of the most powerful antioxidants known.**



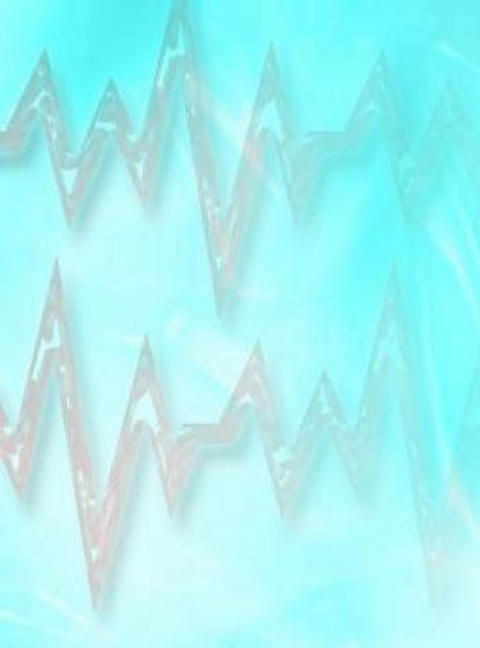


**It is estimated that it exercises from 200 to 500 times more antioxidant benefit than even Vitamin E.**

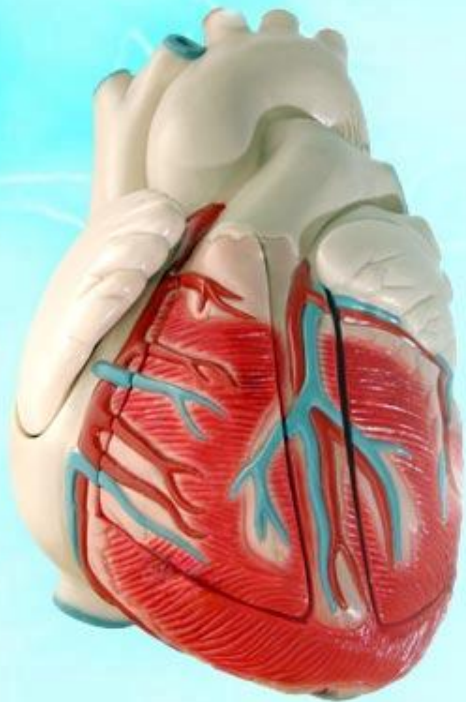


**L-Carnitine has been used, clinically, in both the prevention and treatment of Heart Disease and other cardiac related conditions.**

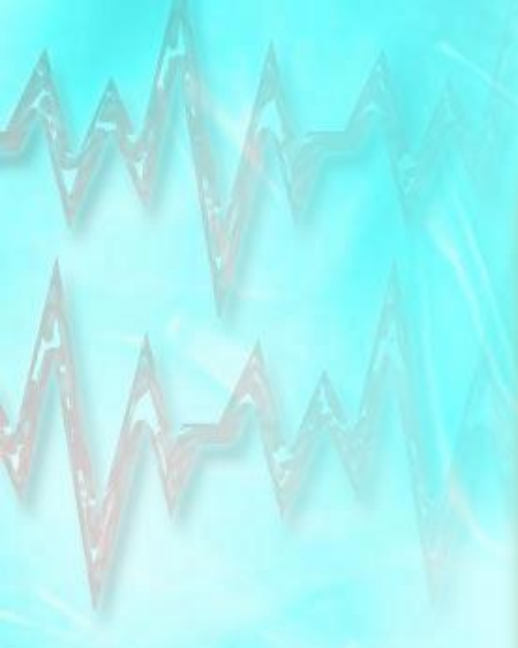
**It is essential in the management of congestive heart failure**



**Another Amino Acid, Cysteine Hydrochloride protects against damages caused from radiation of all types by actually terminating the Free Radicals**

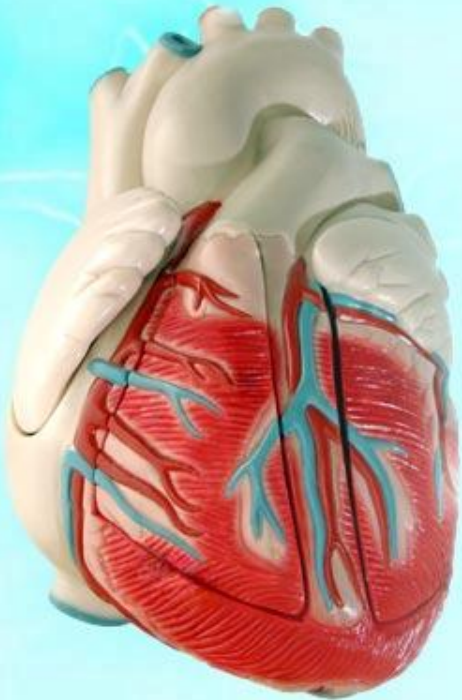


**Gingko Biloba and Dimethylglycine are two compounds, which have the ability to increase the oxygen content of body tissues**



**CoQ10 actually reduces angina and improves cardiac function. Patients taking CoQ10 consistently have better exercise tolerance than those who do not.**

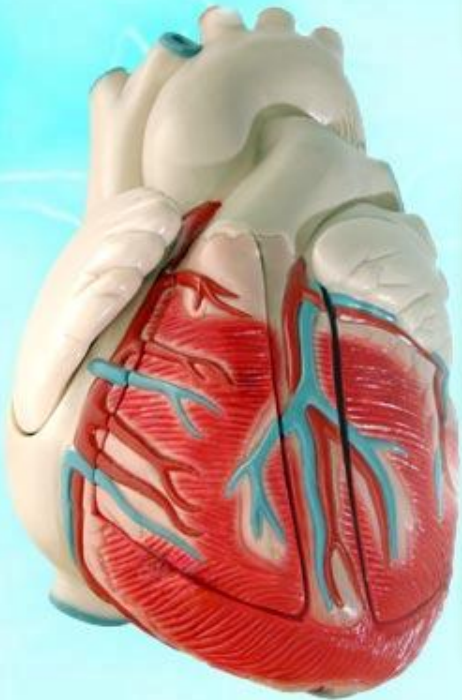
**known as ubiquinone This fat-soluble, vitamin-like substance present in the mitochondria.**



## Conclusion

❖ Heart disease can be prevented and once developed, the condition may be greatly improved..

❖ Medicine has been approaching these conditions in a reactive manner, failing to seek and understand the implications of their cause.



❖ **An epidemiological and nutritional study should be performed in our locality to prove or disprove these arguments about low fat diet and its relation to coronary heart diseases**

