

# CARDIAC INFARCT

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Cardiac infarct is a frequent cause of death. This explains the interest taken by life insurance companies in this particular disease. The Association of Life Insurance Companies at Karlsruhe has made a study of heart infarct, frequently regarded as a "managers' disease", with the collaboration of many clinics. Life insurance companies give financial support to research on cardiac infarct, since they would obviously benefit from a decrease in infarct mortality.

## *A High-Class Disease*

The analysis of 18,000 cases showed clearly that cardiac infarct is by no means a disease peculiar to "managers." One-half of all cases are found in the upper classes, among manufacturers, office workers, government officials and in the professions with a university background. Manual workers participate only to the extent of

20 per cent. The group known as managers has only the average mortality. Why the upper classes are more involved than others, is a problem still waiting for elucidation. It is often said that psychological tension due to the race for customers and careers is responsible for the increase of infarct, and even automobile-driving is sometimes accused on account of the nervous tension it implies. Yet these hypotheses are not proved. Members of the civil service have a safe career, but they get cardiac infarct much on the same scale as "managers" do. The fact that managerial people are not under greater danger from cardiac infarct than other upperclass people is certainly of interest to medical science and life insurance directors. Possibly nutrition and the general mode of living have greater influence than people used to think.

The word "infarct" derives from Latin *infarcire*, to obstruct. A coronary artery is obstructed by a bolus, a small clot of coagulated blood. The bolus is produced at some place in the system and is carried into the coronary arteries by the circulation. Why and where a bolus is produced, is another unsolved riddle. Now in the region of the heart muscle supplied by the obstructed vessel the tissue dies because of lack of oxygen and malnutrition. It becomes necrotic. Usually a white wedge is formed, its thin end pointing toward the bolus. About eight hours after the fixation of the bolus the well-known symptoms of breakdown appear. An infarct can end in death, but the patient may recover after two months. Infarcts can occur repeatedly. One prerequisite is a narrowing of the coronary arteries, which may be due to sclerosis or perhaps even nervous tension. A degree of coronary sclerosis is practically normal in men of sixty and over.

76 per cent of the cases studied were men. Females have only a proportion of 24 per cent. Cardiac infarct is definitely a disease of men. One-fifth of the male cases occurred between the 55th

and 59th years of life. Below 40 the proportion was less than 2 per cent. The danger zone begins after 40. The infarct peak of women is between 65 and 58, a decade later than in males.

### *The Preliminaries of Cardiac Infarct*

A high proportion of the patients had suffered from cardiac and circulatory trouble previous to the infarct. An infarct often seems to come as a bolt from the blue, but in fact it is preceded by fairly long-term changes such as high pressure or angina pectoris. The preliminary changes may pass unnoticed. About 17 per cent of the cases had suffered from infarct before.

The season is important. Infarct is more numerous in winter and in the months of transition than in the summer months. January is the month most dangerous; Sunday is the day of an infarct minimum, while Monday is the peak. This may be due to ample and fat feeding on Sundays, combined with smoking and drinking. Particularly the elderly are in danger on Mondays.

85 per cent of the cases were smokers. Still the problem of the connection be-

## MANY DIFFERENT KINDS OF GLASS NOW MADE

Research is continually revealing new facts about the nature of glass and its potential uses, and is enabling glass manufacturing companies to make special types for different applications, according to a survey made by the National Geographic Society.

As a result, glass is no longer a fragile material of limited utility. In recent years scientists have created a number of tough and versatile "wonder glasses."

Some heat-resistant glasses, for example, can be baked until they are red hot and then plunged into ice water without breaking.

A lead oxide glass cast in slabs 10 inches (25.4 centimeters) thick is almost as heavy as steel. It remains clear even when subjected to heavy atomic radiation.

Tempered glass, made by heating glass until it begins to soften and then quickly cooling the surface, has the strength of cast iron.

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tween smoking and heart infarct remains open. Despite the belief that fat food is responsible the recent study showed that light people are more endangered than heavy ones. Tall men have more frequently infarct than smaller men have. Yet on the whole it would seem that the influence of weight and size has been overrated. Therapeutically the narrowing of the coronary arteries is the point to be attacked. There are drugs widening those vessels. In the case of sclerotic

alteration this is possible only to a limited extent. Older men usually have a measure of sclerosis of the coronaries, and the trouble is part of the difficult problem of arteriosclerosis, refractory to ultimate explanation in spite of an enormous amount of research. Scientists are inclined to think that the rising consumption of fat plays some part. Yet this assumption is far from proved, even if there are some impressive pointers.