

This week in **BMJ**

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Dental health and myocardial infarction

Given that the known risk factors explain only between a half and three quarters of the variation in the incidence of cases of coronary disease doctors have looked around for other causes. Among the possibilities are infections, particularly by viruses. A group of Finnish workers had the idea that infections might also have a role. In two separate case-control studies (p 779) they compared the dental state of 100 patients with acute myocardial infarction with that of matched controls. After adjustment for known risk factors for coronary disease, such as smoking, hypertension, an abnormal lipid profile, and low socioeconomic state the patients with infarction still had poorer dental health (caries and periodontal disease) than the controls. How, then, might dental health and myocardial infarction be related? Possibly, the Finnish workers speculate, by the infection affecting endothelial integrity, lipoprotein metabolism, and blood coagulation.

Suicide and unemployment in Scotland

What is the relation, if any, between unemployment and suicide? Rapidly changing rates of unemployment have given researchers their best opportunity for years to study this question. On p 782 Crombie examines the data for Scotland. He found a significant positive correlation between the rates of suicide and unemployment in men but not women at the national level. When the trends were compared at regional level the correlation for men disappeared. The author concludes that a simple relation of cause and effect is unlikely to link unemployment and suicide in Scotland.

Cigarette smoking and serum lipid and lipoprotein concentrations

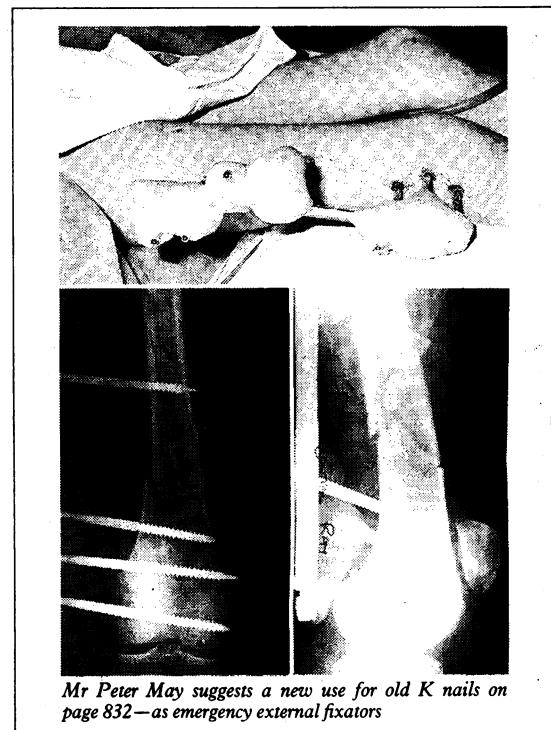
Cigarette smoking is associated with an increased risk of coronary artery disease. The mechanisms for this increased risk are not well understood. Cigarette smoking has been linked with adverse changes in serum lipid and lipoprotein concentrations, though the data have at times seemed conflicting and some studies have lacked statistical power. Craig *et al* (p 784) have performed a meta-analysis of published data to establish the extent to which serum lipid and lipoprotein concentrations are affected by smoking. They found that total cholesterol, triglyceride, very low density lipoprotein cholesterol, low density lipoprotein cholesterol, high density lipoprotein cholesterol, and apolipoprotein AI concentrations were all significantly and adversely affected by smoking and that the changes were dose dependent. These changes could account for some of the excess risk of coronary artery disease associated with smoking.

Cigarette smoking and stroke

Many people assume that cigarette smoking causes strokes. Experts, however, have remained unconvinced because many studies have failed to show a significant association. On p 789 Shinton and Beevers report a meta-analysis of previous studies and conclude that smoking cigarettes does cause strokes. The risk associated with smoking is particularly apparent in younger patients, women, and those with stroke associated with subarachnoid haemorrhage and cerebral infarction. The meta-analysis also suggests that ex-smokers retain an increased risk of stroke, albeit a lower one than that of current cigarette smokers.

Factors affecting birth weight

Maternal smoking, stress, and poor socioeconomic conditions during pregnancy have been linked with low birthweight babies. Is there any way of deciding which of these related potential causes is the most important? In an attempt to do that a research group (p 795) studied over 1500 pregnant women delivering at a district general hospital in inner London. They showed that the most important influence on fetal growth was smoking, which was associated with a 5% reduction in birth weight after adjustment for maternal height and parity, gestation, and the baby's sex. Of over 40 socioeconomic and psychosocial factors examined, only four were significantly related to a reduction in birth weight, and these became non-significant after adjustment for smoking. The authors conclude that any effects of stress and poor environment on fetal growth are small compared with the effect of smoking.



Mr Peter May suggests a new use for old K nails on page 832—as emergency external fixators