Smoking in the Services

In 1961 47 per cent of newly joined Army doctors were non-smokers. Today rather more than 75 per cent are non-smokers. Unfortunately the position for soldiers is not as encouraging. In 1959 76 per cent of boy soldiers aged 17 years were regular smokers; by 1966 this figure had fallen to 68 per cent. But in 1975 the prevalence of cigarette smoking in the Army generally was 72 per cent, well above the national average. As an occupational group the Army is not far behind coal miners who lead the field at 79 per cent. Moreover present evidence suggests that among confirmed regular smokers, soldiers are also heavier smokers than average. The Army anti-smoking campaign has not yet met with much success, and there remains very considerable scope for positive action to reduce smoking in the Services.

PHYSICAL FITNESS IN THE PREVENTION OF ISCHAEMIC HEART DISEASE

SURG CDR D M CREAN, MB, D Phys Med, RN

Detailed analysis is needed to see whether exercise has a genuine role in the primary prevention of ischaemic heart disease.

Exercise is now a popular prescription, but the majority of published analyses indicate that the interpretation of the noted changes, for example, in triglyceride and catechol amine levels, in blood are subjective rather than objective. Recent work indicates that continuity of exercise programmes is more important than intermittency and it can be reasonably accepted that the physical benefit achieved will mirror the amount of training put into the programme. Furthermore, having ceased exercise it is noted that the patient returns to pre-morbid levels, with regard to triglycerides etc quite rapidly. Speculation also exists from animal work that improvements in collateral circulation take place following exercise; the evidence that this can be extrapolated to the human heart is scanty.

From these many subjective interpretations of admittedly proven change, I can conclude that much work has to be done yet if the case is to be considered proven that physical fitness has any real role to play in the prevention of ischaemic heart disease.

STRESS IN RELATION TO ISCHAEMIC HEART DISEASE

LT COL P ABRAHAM, FRCPsych, RAMC

It can be shown that both contrived laboratory stress and events in the course of a normal working day will induce tachycardia and hypertension similar to those accompanying moderate exercise. Laboratory evidence obtained from monkeys and mice shows that both experimentally-induced conflicts within an animal, and competition between animals, can induce fixed hypertension. In addition the neuro-endocrine system has been shown to affect lipid metabolism.

However the role of stress in the development of ischaemic heart disease in

man is not clearcut. This may be attributed to his ability in most cases to minimise the effects of stress by changing his environment or adapting himself to it.

A single prospective study has suggested that a group of people with particularly hard-driven personalities are less successful at this than their more languid counterparts. This observation however leaves little scope for reducing the risk of IHD in servicemen, any more than does the evidence that major changes in social environment (such as those encountered by soldiers leaving families in British Army of the Rhine for four-month unaccompanied tours in Northern Ireland) are associated with increased risk. However the conclusion drawn from the Marmot Study that "traditional" Japanese with strong family and social ties are less at risk than their more individualistic Americanized brothers, should augur well for those who live in tightly-knit service communities.

Many whose coping mechanisms have not succeeded in warding off unpleasant cardiovascular symptoms seek psychiatric help. Service psychiatrists have considerable scope in manipulating a serviceman's environment, as well as assisting him in improving his personal adaptation. They even use beta-blockers. It would be helpful to know if they reduce the risk of ischaemic heart disease in these individuals. However their impact on the total population at risk is unlikely to be large. It is those who have not had symptoms or have not sought help in the earlier stages who are in the greatest danger, since it is generally accepted that where there is established ischaemic heart disease the risks from stress are most substantial.

Finally clinicians need no reminding in their management of both cardiovascular symptoms and cardiovascular disease that fear of IHD, whether rational or irrational, spontaneous or iatrogenic, is itself a stress which can be incapacitating or even lethal.

3 Prevision and Prevention

ROUTINE SCREENING OF AIRCREW

RECENT HISTORY AND DEVELOPMENT

AIR CDRE J N C COOKE, OBE, MD, FRCP

Pathologist colleagues find an incidence of 25 per cent of significant coronary occlusion in autopsies of aircrew. Yet in Service aviation we have yet to be certain of a case where an accident was caused by IHD. In worldwide civil aviation there have been no more than eight fatal accidents in 18 years due or partly due to IHD. The risk in scheduled airline flights is less than 20 million to one that an accident will be due to **all** the medical causes of acute incapacitation — of which IHD is not the commonest.

Yet public and professional concern remains high about this tiny risk — a reflection of the present epidemic status of IHD. As a result there have been