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PERSONAL VIEW ON THE ANNUAL MEETING OF THE AMERICAN COLLEGE OF SPORTS MEDICINE – 1985

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Sports medicine in the UK remains a Cinderella specialty, having failed to capture the interest or the imagination of the medical profession, and in spite of the explosion in exercise participation among our patients. Perhaps the reason is that most of us still tend to associate sports medicine with the acute management and rehabilitation of sports injuries that are regarded as self-induced and therefore win little sympathy. Illness due to smoking, alcohol abuse, obesity and road accidents are for some reason regarded differently. But sports injuries are only a small part of the specialty. Exercise physiologists, cardiologists, epidemiologists, orthopaedic surgeons, endocrinologists, psychologists and the whole range of general medical physicians have important roles. Exercise medicine would be a far better descriptive term particularly since many more of our patients exercise rather than take part in competitive sport.

These thoughts occurred to me while attending the annual meeting of the American College of Sports Medicine in Nashville, Tennessee at the end of May. The College boasts more than 10,000 members and nearly 2,000 attended the meeting at some stage during the four days. Southern hospitality was much in evidence in the opulent Opreyland Hotel complex. Conference presentations comprised 8 tutorial lectures, 13 symposia, 9 informal colloquia, 6 poster sessions and over 450 scientific papers.

Joggers and swimmers made full use of the excellent hotel facilities and grounds. A 10 K race was arranged for the third morning and even the 6.30 start didn't deter 700 delegates from lining up. The writer failed to distinguish himself and regretted running in Union Jack shorts. Highlight of the meeting, however, was the presentation of the College Honour Award to Professor Jerry Morris of the London School of Hygiene and Tropical Medicine and chairman of the Sports Council's Fitness and Health Advisory Group. The award was in recognition of excellence in contributing to sports medicine and exercise science; reference was made of course to his landmark London Transport study of the early fifties showing a reduced incidence of coronary heart disease in bus conductors compared with drivers. Many papers since have substantiated Jerry Morris's findings, not least Ralph Paffenberger's San Francisco longshoreman study. At the conference a paper from North Carolina reviewing the recent literature confirmed the protective value of habitual vigorous exercise but also showed a transient increased risk of sudden cardiac death during the actual activity.

Two lectures were given on overtraining and staleness. The message, particularly for elite athletes, was to cut back or taper training quantity as much as two months before an important event. There is no deterioration in performance and the risks of staleness are forestalled. In athletes who overtrain (60-90 miles per week has been found to be an optimal level), a condition analogous to clinical depression can develop. In

my own experience with the Burnham Joggers the staleness syndrome is accompanied by a leucopenia and relative lymphocytosis and the blood only returns to normal after an enforced lay off. Rarely are there any clinical signs to suggest a viral illness. It is interesting to recall that before running his 4 minute mile, Roger Bannister only trained for 30 minutes a day.

An epidemiological study of marathon runners showed that most overuse injuries are a result of faulty training techniques and there was no evidence to implicate failure to stretch or warm up. A prospective study following 400 aerobic dancers for 8 weeks in California (where else?) showed consistently higher injury rates in dancers who attended more than four classes a week. However, the rate was only 0.33 injuries/100 hours exposure overall. The conclusion was that the enhanced fitness substantially outweighs problems encountered with injuries and there are reckoned to be 20 million dancers in USA at present.

It was reassuring to learn from Boston that youngsters with Sever's disease (calcaneal apophysitis) can be expected to make full recoveries and return to their desired sports after an average of two months with the aid of stretching exercises and heel raises.

A symposium on exercise induced asthma (EIA) drew attention to the high number of athletes who will develop bronchospasm when subjected to a certain level of atmospheric pollution even though they are not recognised as allergic subjects. In Los Angeles last year 41 of 67 American asthma sufferers won medals, 15 of them gold, and it would appear to have been thanks to the British drug, sodium cromoglycate. Work is now going on to study the possible benefits of calcium antagonists in EIA although a report from South Africa suggests nifedipine decreases performance. An important and accepted factor in prevention of EIA in competition was a thorough warm up.

Papers were fairly unanimous on the matter of beta blockade lessening the degree of training response and any benefit of selective blockade seems rather tenuous. Amenorrhoea and associated osteoporosis has become an area of concern. A study from California suggested that the condition must be treated early to prevent irreversible bone loss. On the credit side, however, a three year exercise programme for middle-aged women in Wisconsin showed no change in bone mineral content, whereas the sedentary control group had a 7.5% content decline.

Another area of medicine where evidence continues to accumulate for the beneficial effects of exercise is maturity onset diabetes. A tribe of American Indians, the Pima, were cited who have an incidence of diabetes approaching 50% now that their lifestyle has changed from hunter gatherer to

the sedentary existence of the special reserve. A study from Pritikin's team in California showed a statistically significant drop in cholesterol and triglyceride levels of hypercholesterolaemic men that exercised and ate a healthy diet. An intensity of exercise approximating that used in jogging or running is necessary to produce elevations in protective high density lipoproteins; professional golfers had lower levels according to a paper from Texas. From Kansas came two reports on fat utilisation. The first showed enhanced utilisation during morning running i.e. after a 12 hour fast, compared to afternoon exercise; the second found enhanced utilisation when exercising in a cooler temperature.

A symposium on the role of primary care physicians in sports medicine was comforting to me, a full-time NHS GP. It seems few persons in USA have the comprehensive kind of service provided in general practice here. Their health care seems very fragmented. Many acute sporting injuries find their way directly to orthopaedic surgeons which could contribute

to some of the 10 million unnecessary operations performed in America every year.

A particularly lavish feature of the meeting was the trade exhibition with over 100 companies displaying very modern and complicated-looking equipment for fitness testing, exercise and rehabilitation. If only my partners could see the advantage in acquiring one old treadmill as opposed to the computer in which they have expressed an interest!

I regret I was not able to hear any of the papers in rehabilitation but I feel sure this will become an increasingly important area in practice. I also missed the debates on the role of exercise in the young and elderly. In conclusion, I feel sure Britain will soon recognise Sports Medicine in its wider sense. Perhaps we could begin by re-naming the Sports Council – the Exercise Council. Exercise for all is surely a more realistic goal.