

Exercise: important for prevention and treatment of disease

In ancient Greece it was considered a citizen's duty to remain fit – both Hippocrates and Galen recommended exercise for health. Despite this it was not until the beginning of the 20th century that exercise to improve health was considered by the medical profession. By the first decade of the 21st century the massive benefits of exercise, not only in improving health but also as a therapeutic intervention, had become apparent.

In 2005 London won the bid for the 2012 Olympics, and part of this bid was a commitment to recognize sport and exercise medicine as a speciality. One reason for this was to have a supply of qualified doctors to help with the medical tasks required to run an Olympics, but it was also because the government recognized the role of exercise in improving the health of the nation. Since then prevention of disease by using exercise has been joined by the idea of exercise as a therapeutic intervention, this has been championed by the American College of Sports Medicine 'Exercise is Medicine' initiative.

Most doctors will know that the recommended minimum level of exercise is 30 minutes a day of moderate exercise, 5 days a week (Department of Health, 2004), and that exercise can reduce the risk of stroke by 27% (Hu et al, 2000), reduce the incidence of diabetes by approximately 50% (Wei et al, 2000) and decrease depression as effectively as Prozac or behavioural therapy (Dunn et al, 2005).

The Swedish National Institute of Public Health (2010) has published *Physical Activity in the Prevention and Treatment of Disease* – this excellent publication lists 32 diseases where the condition can be improved with exercise. This book is designed to be a 'BNF' type reference book for family doctors, so they are able to recommend the appropriate exercise.

On reading the articles in the symposium in this issue of *BJHM*, it is clear that exercise is not the preserve of the primary care physician. Dr Grimmett (p.196) discusses the role of exercise in cancer survi-

vorship. As an example of what exercise can do she points out that, in a group diagnosed with breast cancer, moderate exercise led to a 50% risk reduction in breast cancer death and a 43% risk reduction of breast cancer recurrence. This compares favourably to tamoxifen which reduces the risk of non-invasive breast cancer by 50%. Unlike drugs, which generally have a specific effect, Dr Grimmett points out the broad benefits of exercise in improving general health and wellbeing in patients with cancer.

Dr Stride (p. 200) argues strongly for the inclusion of exercise advice and encouragement in all patients with chronic renal failure and for those attending for regular dialysis. Why not get patients to exercise during dialysis? This improves a wide range of parameters and has the potential to reduce the time spent in dialysis. As Dr Stride points out 3% of the NHS budget is spent on chronic renal failure and a small investment in exercise advice and some exercise equipment in the dialysis unit could well improve the health of chronic renal failure patients and also save the NHS hundreds of millions of pounds.

Just when you thought it was safe to sit back and spend several hours in front of the computer, as we all do, Drs Stamatakis and Hamer (p. 192) warn us of the dangers of such sedentary behaviour. It is not enough just to exercise – we should strive to spend less time sitting down. They also point out that this is not necessarily the role of the doctor but of public health,

town planning and building design. This was illustrated to me when I was riding the new metro system in Delhi. Leaving the station was a wide flight of about 15 stairs, next to which was a short escalator. The stairs were deserted; there was a queue for the escalator.

Conclusions

As doctors we need to do more exercise ourselves, promote exercise in our patients by taking an exercise history and advising on appropriate exercise that they can do, and encourage the design of an exercise friendly world. It is our duty as citizens. **BJHM**

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KEY POINTS

- There is a vast amount of published evidence that regular exercise has great health benefits.
- Exercise can and should be used in the hospital setting as a treatment for many diseases, and advice on exercise prescription in the secondary care setting can be obtained from your local sport and exercise medicine consultant.
- Unlike a drug that will target one aspect of a disease, exercise will produce a global improvement in health.
- All doctors should take an exercise history on every patient and give appropriate advice on exercise and sedentary behaviour.