

*The evidence suggests that doctors should be treating people's inactivity with as much rigour as they assign to other primary risk factors.*

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# Active living: A prescription for lifelong health and well-being



*Those who remain or become active manage to avoid the dreaded weight gain that seems to be inevitable as we drift into middle age.*

The case for exercise and public health has been around for some years now, but the evidence has never been stronger. Our bodies were designed for activity, and it shouldn't surprise us that they degenerate if we don't use them as they are meant to be used.

Substantial research evidence now supports this view. Several studies have indicated that leading a sedentary lifestyle doubles the risk of illness and premature death from coronary heart disease. This independent risk is similar to that for hypertension and not far behind high cholesterol and smoking (Berlin & Colditz, 1990; Powell et al., 1987). This suggests that doctors should be treating people's inactivity with as much rigour as they assign to other primary risk factors, especially as those who do begin to exercise reap the benefits, no matter what age they are (Blair et al., 1995).

### 1 adult in 2 is overweight

Coronary heart disease prevention is only part of the story. In Britain, one of the health problems to seriously worsen over the last 20 years is overweight and obesity. Clinical obesity (body mass index 30+) has more than doubled since 1980 from 8% to 16.5% in women and 6% to 15% in men.

*More than half the adult population is now overweight by clinical standards.* If trends continue, we will be faced with one in four women and one in five men as obese by the year 2005! The consequences are higher incidence of heart

disease, diabetes and a host of other problems.

### Sloth, not gluttony

It is a remarkable fact that during this period our average energy intake and fat consumption have actually *decreased* (Fig. 1). On the other hand, the same figure shows that indicators of inactivity, such as time spent watching TV and number of cars per household, have shown substantial changes directly and positively related to the trend in weight gain (Prentice & Jebb, 1995).

It seems clear that our affluence and increasing technology are causing major shifts in our energy balance. There are few active occupations now, we have more automation at home, at work and where we shop, and there is more appealing screen entertainment to keep us at home with our feet up.

Longitudinal studies give support to this view by showing that those who remain or become active manage to avoid the dreaded weight gain that seems to be inevitable as we drift into middle age.

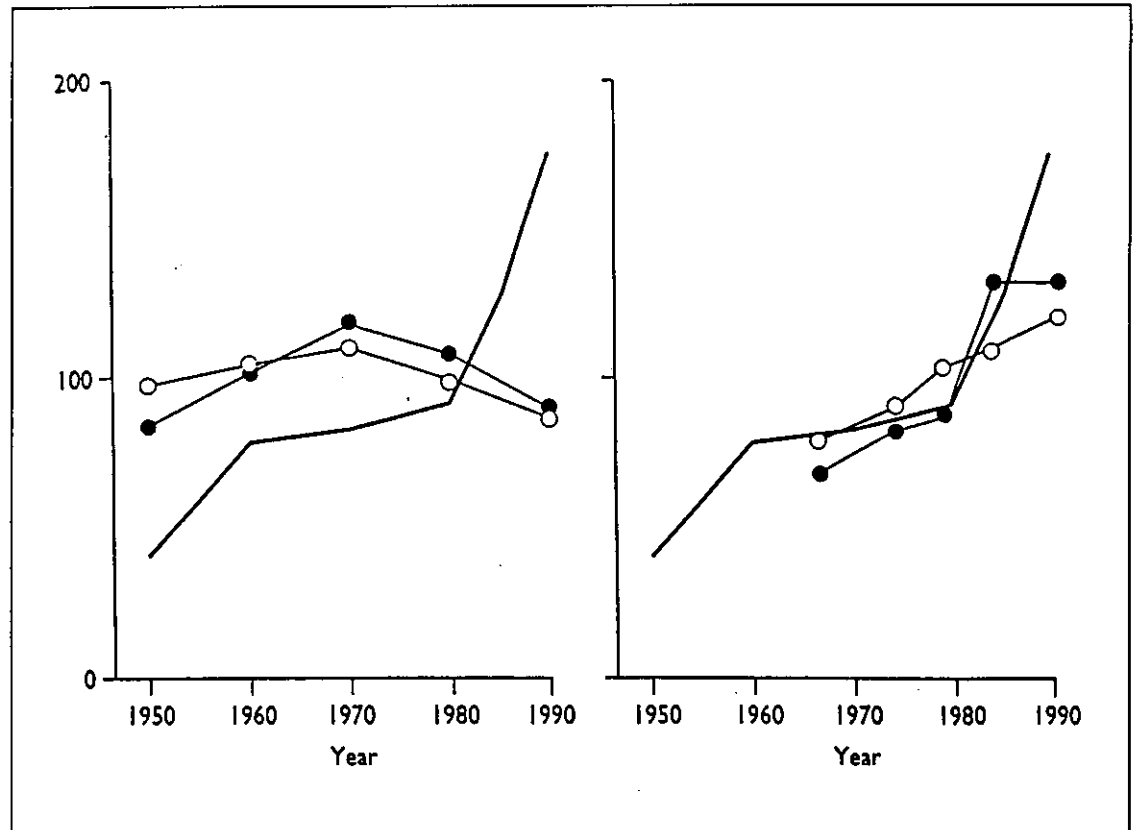
Increasing your physical activity can also bring lots of other advantages. It has been shown to reduce some cancers, particularly colon cancer, and it can help offset osteoporosis. It can also help prevent the onset of diabetes in adulthood, and is now recognised as a critical part of treatment for this condition. It will also improve strength, cardiovascular fitness, and co-ordination, which are important in the young and old.

Figure 1. Secular trends in diet (left) and activity indicators (right) in relation to obesity in Britain (black line).

In the left-hand diagram the black circles represent energy intake and the open circles fat intake. In the right-hand diagram, black circles represent the amount of television viewing and the open circles the number of cars per household.

The values of each set of data have been calculated to show the percentage change across the four decades, based on an average value of 100%.

From Prentice & Jebb (1995).



Furthermore, more information is emerging to show how powerful exercise can be in helping people improve their psychological well-being through reduced anxiety and depression and improved self-perceptions (see Morgan, 1997).

The strength of the evidence has led to the following high-level initiatives:

- the Health Education Authority, and the Health Education Board for Scotland, have launched national activity promotion campaigns;
- there has been a recent US Surgeon General's report (1996) on the need for activity for health;
- a report on the same topic has also been produced by the World Health Organisation (1995).

Professor Jerry Morris (1994) declared physical activity to be today's 'best buy' in public health.

### Physical activity for health

To date, the standard exercise prescription has been 20 minutes of large muscle group activity with heart rate at 60-80% of maximum. This outdated 'magic pill' approach was never intended as a formula for health. It is too de-

manding for the average person, and after 20 years of its usage the percentage of the population exercising at this level remains at 20% or below. The real benefits for public health can be found by helping people who are sedentary become active again. This involves a large sector of the middle-aged and elderly population, but also a significant percentage of youngsters, particularly teenage girls, and the potential pay-offs are great.

The basic message, then, is to get people out of their seats and on to their feet more often, with some of the time spent working a little harder than usual to increase heart rate. Frequency rather than intensity of exercise seems to be the key to health, although those who already exercise vigorously should continue, as they will receive additional benefit. An investment of three hours per week will pay significant dividends.

### Promoting active lifestyles

#### Schools

Schools have an influence on 40-45% of children's waking time, which is second only to the family. They need to develop active and healthy school policies (see Fox, 1996). This has

### MAJOR HEALTH BENEFITS OF INCREASED PHYSICAL ACTIVITY

#### Reductions in:

Heart disease and stroke  
Obesity and diabetes  
Some cancers and osteoporosis

#### Improvements in:

Fitness and level of functioning  
Psychological well-being

### WHAT 'ACTIVE' SCHOOLS SHOULD HAVE:

An active school committee and development plan  
 Safe 'routes to school' schemes  
 Facilities for cycle storage  
 An extensive and varied physical education and health curriculum  
 Education for activity for health  
 Ample facilities and opportunity for breaktime play and sport  
 School exercise and sport clubs on offer  
 Strong links with community activity and sport provision

been mentioned in the recent government green paper on health as an area for development.

Children lead very different lifestyles to their parents, when they were youngsters:

- bicycle riding is now too dangerous in many localities;
- children are less likely to be allowed to play outside unattended;
- only about 50% of children get to school under their own steam each day;
- virtually no girls ride their bikes to school, and only 5% of boys do;
- sport has declined in some schools;
- curricular time allocated to physical education in Britain is among the lowest in Europe.

At the same time, children now have computer games stations, videos and TV in their bedrooms, which offer an easy alternative to physically-active leisure. Although the health consequences of inactivity in children will not show up until later life, there is national survey evidence that they are already mirroring the adult trend towards increased fatness.

### Workplaces

Unlike the USA, where corporate 'wellness' programmes are extensive, worksite schemes have been largely neglected in Britain. This has also been recognised in the recent government green paper as an area for significant development.

Employers should consider the development of active and healthy workplace policies. Much can be achieved here, and there is potential for links with life insurance premiums and other benefits for those who maintain healthy activity levels.

Active workplaces will have:

- active committees and policies;
- reward schemes and facilities for active commuting to work;
- education programmes for cardiovascular health, back health, weight and stress management;
- exercise facilities that are accessible to all;
- working practices that encourage health-related activity.

### The living environment

Currently, environments in many localities do not encourage physical activity. Too much traffic, poorly-designed precincts and buildings, and insufficient investment in recreational facilities are the major culprits. Major shifts in public activity levels will not be achieved without significant environmental changes.

*Governments* must take the lead in developing transport and local planning policy that encourages development in local living conditions.

*Local authorities* have to take the lead in encouraging alliances among those responsible for education, health, transport, building and planning so that healthy policies can be implemented.

### Healthy activities for young people and adults

These are some of the things that will contribute usefully to the 'activity total'. To repeat, frequency rather than intensity of exercise seems to be the key.

Walking part of the way to work or school

Cycling to work

Pushing the stroller to school

Walking at lunchtime instead of eating at the pub

Taking the dog for a walk after dinner

Gardening as a hobby

Rambling at weekends

Washing and waxing the car

Wheeling oneself in a wheel chair

Playing out

Social dance and aerobics

Busy housework such as cleaning

Swimming

Recreational sports

### EFFECTIVE PHYSICAL ACTIVITY

*The fundamental physical activity recommendation agreed on both sides of the Atlantic is that people should:*

Build up to 30 minutes of moderate intensity exercise, equivalent to brisk walking, on most or all days of the week.

Almost as beneficial is to achieve two 15-minute bouts per day.

*Additional benefit will be gained by:*

Easy stretching and strengthening exercises for specific parts of the body.

All weight-bearing movement, as this increases energy expenditure for weight management and helps strengthen bones.

## Summary

The case supporting physical activity for health is strong and clear.

SEDENTARY LIVING IS CURRENTLY CAUSING SERIOUS DAMAGE TO PEOPLE'S HEALTH, AND WITHOUT INTERVENTION THIS IS LIKELY TO WORSEN IN THE FUTURE.

The solutions are not insurmountable.

FROM THE INDIVIDUAL, WE NEED AN INVESTMENT OF THREE HOURS PER WEEK IN ACTIVITY.

This can be incorporated without major upset into the daily routines of many people. Health educators and promoters can help by pressing the messages home. National and local government need to set the agenda by encouraging alliances with transport, building, education and health authorities to help make our surroundings more conducive to health-related physical activity.

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