

Time to encourage patients to take more exercise

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What are the health benefits of exercise?

LONDON HAS JUST PLAYED HOST TO POSSIBLY THE GREATEST EVER OLYMPIC AND

Paralympic Games. I enjoyed my small part as a medical volunteer at the Olympic football tournament.

Numerous public figures have talked about the potential legacy promoting sport and exercise to the population. This could also be the greatest opportunity for GPs and sport and

What are the recommended target levels?

exercise medicine specialists in the UK to combine forces to deliver our strongest ever campaign to promote physical activity and improve the nation's health.

THERAPEUTIC BENEFITS

Exercise can, and should, play a major role in the health of our nation. Former Chief Medical Officer (CMO) Professor Sir Liam Donaldson has stated that regular physical activity of moderate

How can GPs help patients to be more active?

intensity can bring about major health benefits as well as significant cost savings for the NHS.

Evidence suggests that regular exercise can produce up to a 30% reduction in all cause mortality¹ with a 35% lower risk of cardiovascular disease, coronary heart disease (CHD)^{2,3} and stroke. There is evidence to show that 37% of CHD deaths can be attributed to physical inactivity compared with 19% and 13% for smoking and hypertension »

Table 1

Percentage of adults in the UK achieving recommended levels of exercise/physical activity

Adults

Country	Men	Women
England	40%	28%
Northern Ireland	33%	28%
Wales	36%	23%
Scotland	43%	32%

FIGURE 1

The General Practice Physical Activity Questionnaire



General Practice Physical Activity Questionnaire

Date.....

Name.....

1. Please tell us the type and amount of physical activity involved in your work.

		Please mark one box only
a	I am not in employment (e.g. retired, retired for health reasons, unemployed, full-time carer etc.)	
b	I spend most of my time at work sitting (such as in an office)	
c	I spend most of my time at work standing or walking. However, my work does not require much intense physical effort (e.g. shop assistant, hairdresser, security guard, childminder, etc.)	
d	My work involves definite physical effort including handling of heavy objects and use of tools (e.g. plumber, electrician, carpenter, cleaner, hospital nurse, gardener, postal delivery workers etc.)	
e	My work involves vigorous physical activity including handling of very heavy objects (e.g. scaffolder, construction worker, refuse collector, etc.)	

2. During the last week, how many hours did you spend on each of the following activities?
Please answer whether you are in employment or not

Please mark one box only on each row

		None	Some but less than 1 hour	1 hour but less than 3 hours	3 hours or more
a	Physical exercise such as swimming, jogging, aerobics, football, tennis, gym workout etc.				
b	Cycling, including cycling to work and during leisure time				
c	Walking, including walking to work, shopping, for pleasure etc.				
d	Housework/Childcare				
e	Gardening/DIY				

3. How would you describe your usual walking pace? Please mark one box only.

Slow pace (i.e. less than 3 mph)		Steady average pace	
Brisk pace		Fast pace (i.e. over 4mph)	

respectively.¹ In addition a 40% reduction in the risk of metabolic syndrome and type 2 diabetes has been reported with moderate physical activity.⁴

There is convincing evidence that aerobic physical activity has a consistent effect on weight maintenance and a positive effect on weight reduction along with dietary intervention.^{5,6} There are also benefits for mental health including improvements in depressive illness.⁷

Musculoskeletal benefits have also been demonstrated with significant reductions in hip fractures and osteoarthritis, as well as pain relief. Exercise can have major benefits for our growing elderly population, including falls reduction^{8,9} and fracture prevention,¹⁰ among many other health gains. Cancer risks can also be reduced, with up to a 50% reduction in colonic carcinoma and a 20% reduction in breast carcinoma.^{11,12}

PHYSICAL ACTIVITY TARGETS

The current guidelines from the CMO^{13,14,15} for adults (19–64 years) recommend:

- 150 minutes of moderate intensity aerobic exercise per week such as fast walking or cycling plus muscle strengthening activities on 2 or more days a week that work all muscle groups (legs, hips, back, abdomen, chest, shoulders and arms) OR
 - 75 minutes of vigorous intensity aerobic activity such as running or singles tennis plus the same muscle strengthening regimen OR
 - An equivalent mix of the two: e.g. 2 x 30 minutes running and 30 minutes fast walking plus the muscle strengthening exercises for 2 or more days per week
- These guidelines are based on an extensive body of research collated by the World Health Organization.

The figures, in table 1 above, suggest that many adults in the UK are not reaching the target levels of physical activity. Such statistics highlight the pressing need to get the population more active and closer to meeting the recommended guidelines for physical activity.

GPs are among the best advocates to promote physical activity through their close daily contact with the target audience. The average patient attends their GP four times per year and 78% of patients will be seen in any one year.¹⁶ Furthermore, a study in 2006⁵ suggested that one in four people would become more active if advised to do so by a doctor or nurse.

One way GPs can increase their

key points

SELECTED BY

Dr Peter Saul

GP, Wrexham and Associate GP Dean for North Wales

Regular physical activity of moderate intensity can bring about major health benefits as well as significant cost savings for the NHS. Evidence suggests that regular exercise can produce up to a 30% reduction in all cause mortality with a 35% lower risk of cardiovascular disease, coronary heart disease and stroke. There is evidence to show that 37% of CHD deaths can be attributed to physical inactivity compared with 19% and 13% for smoking and hypertension respectively. In addition, a 40% reduction in the risk of metabolic syndrome and type 2 diabetes mellitus has been reported with moderate physical activity.

Aerobic physical activity has a consistent effect on weight maintenance and a positive effect on weight reduction along with dietary intervention. There are also benefits for mental health including improvements in depressive illness. Musculoskeletal benefits have also been demonstrated with significant reductions in hip fractures and osteoarthritis, as well as pain relief. Exercise can have major benefits for the growing elderly population, including falls reduction and fracture prevention. Cancer risks can also be reduced, with up to a 50% reduction in colonic carcinoma and a 20% reduction in breast carcinoma.

Current guidelines from the CMO, for adults aged 19-64 years, recommend 150 minutes of moderate intensity aerobic exercise per week such as fast walking or cycling plus muscle strengthening activities on two or more days a week or 75 minutes of vigorous intensity aerobic activity such as running or singles tennis plus the same muscle strengthening regimen or an equivalent mix of the two.

Only 40% of men and 28% of women in England are achieving the recommended levels of exercise/physical activity. One way GPs can increase their patients' physical activity levels could be via an individualised tailored care pathway aiming to motivate individuals to make long-term health changes. Evidence suggests that the risks associated with physical activity at a level to promote health are low and that health benefits outweigh the risks.

The 5 As system (Ask, Assess, Advise, Assist and Arrange) which is sometimes used in smoking cessation can be adapted for physical activity. Ask about the patient's current levels of physical activity using the General Practice Physical Activity Questionnaire; Assess their fitness and capabilities; Advise about appropriate exercise and the risks involved; Assist in locating places to get involved, use 'Let's Get Moving' and exercise referral schemes available; Arrange any necessary referrals.

patients' physical activity levels could be via an individualised tailored care pathway aiming to motivate individuals to make long-term health changes. These types of interventions for mild to moderate medical conditions are being trialled in certain primary care trusts. Such initiatives include 'Let's Get Moving' a new physical activity care pathway for the NHS.¹⁷ This pathway has been designed to motivate patients to set their own physical activity goals drawing upon community-based physical activities and encouraging people to take gradual steps to become more active. It is hoped that physical activity will then become a natural part of everyday life.

'One in four people would become more active if advised to do so by a doctor or nurse'

Exercise referral schemes already exist in many parts of the UK.¹⁸ However, GPs could also take a proactive approach in motivating patients to exercise in the same way that they tackle smoking, alcohol consumption and overweight.

PHYSICAL ACTIVITY QUESTIONNAIRES

Evidence suggests that the risks associated with physical activity at a level to promote health are low and that the health benefits outweigh the risks.¹⁹

GPs already measure numerous parameters such as height, weight, BMI and blood pressure. They also use questionnaires for measuring anxiety/depression (HADS/PHQ-9) and alcohol intake (CAGE) so it would be relatively straightforward to use physical activity questionnaires such as the General Practice Physical Activity Questionnaire (GPPAQ),²⁰ see figure 1, opposite, to add to the growing body of data.

Once these have been completed GPs could advise on possible interventions based on the risk, counsel for behaviour change, and involve others such as counsellors, physiotherapists and practice nurses. Patients could be encouraged to identify their own physical activity strategies and make use of exercise referral schemes.

The 5 As system (Ask, Assess, Advise, Assist and Arrange) which is sometimes used in smoking cessation can be adapted for physical activity.²¹

- Ask about the patient's current levels of physical activity using GPPAQ
- Assess their fitness and capabilities
- Advise about appropriate exercise and the risks involved
- Assist in locating places to get involved, e.g. initiatives such as 'Let's Get Moving' and exercise referral schemes where available
- Arrange any necessary referrals

SPORT AND EXERCISE MEDICINE

More widely within the NHS, the specialty of sport and exercise medicine, which was established as a London 2012 legacy bid commitment, can help ensure a long-term, broad-based Olympic health legacy.

The Faculty of Sport and Exercise Medicine hopes to see greater numbers of sport and exercise medicine consultants in the wider NHS, to help address the UK's physical activity levels. These practitioners can help do so through the provision of physical activity advice and prescription, behavioural change interventions and the management of sports-related injuries and illnesses. The Royal College of Physicians publication *Exercise for Life*¹ states that there is a clear opportunity to ensure a health legacy from the 2012 Olympics through the development of pilot projects based on pathways with a network of exercise providers and healthcare workers supported by sport and exercise medicine consultants at PCT level.

Most recently, the House of Lords Committee on Science and Technology Report on Sport and Exercise Science and Medicine²² highlighted the importance of public understanding of the health benefits of exercise, and urged joined up thinking in encouraging participation in sport to tackle sedentary lifestyles as part of the Games legacy.

The Olympic legacy promises to help the nation be healthier, happier and more active. This is a unique time for the various medical specialties to work together supporting Department of Health initiatives to encourage the population of the UK to participate in regular physical activity. The time is ripe to develop a national physical activity plan establishing a national strategy and an exercise medicine care pathway model. »

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Useful information

The Faculty of Sport and Exercise Medicine
www.fsem.co.uk

The British Association of Sport and Exercise Medicine
www.basem.co.uk

Patient UK
www.patient.co.uk/directory/exercise-physical-activity-fitness-advice

A HUNDRED YEARS AGO

Extracted from a 1912 issue of *The Practitioner*

THE INUNCTION TREATMENT OF MEASLES

BY D.I. CONNOLLY, M.B., CH.B., RESIDENT ASSISTANT MEDICAL OFFICER,
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THE INUNCTION TREATMENT of scarlet fever was introduced around 1890 by Dr. J. Brendon Curgenvin.¹ Further, Dr. Curgenvin said that, in his experience, it prevented the spread of measles and chicken-pox. Dr. Robert Milne, in a paper entitled "The Home Treatment of Scarlet Fever" and book advocated the treatment of scarlet fever by means of eucalyptus ointment, and also advised painting the tonsils with carbolic oil.^{2,3} Dr. Milne has extended his treatment to measles. He speaks highly of the results.

The general trend of opinion among the medical profession towards the use of eucalyptus inunctions in the treatment of infectious disease – chiefly scarlet fever and measles – may be said to be of a non-committal character. Dr. Goodall, indeed, can see little if any value in the method (Medical Annual 1910). The chief exponent and upholder of the claims of eucalyptus inunctions is Dr. Milne, who seems to have little, if any, doubt as to its great value both in curing and in preventing scarlet fever. At the last meeting of the British Medical Association in the section of State Medicine, Dr. Rundle (Liverpool) stated that, in his opinion, Dr. Milne's home treatment of scarlet fever by inunction and throat swabbing was now discredited.

My own observations and clinical trials have been made with a view to showing what value, if any, can be attributed to eucalyptus inunctions and antiseptic treatment of the mouth and throat, in the treatment of measles. The children were not taken from the healthy, well-to-do classes, in whom, as a rule, the mortality from measles is low, but from the poorest class of the community, who are prone to all kinds of infections, and have poor resisting powers to the inroads of disease. That this is the case is shown by the large percentage of, often serious, complications. Further, except in those cases arising in the hospital, we did not get the children in the very early stage i.e. pre-eruptive stage. Often indeed they already had broncho-pneumonia.

I lay special emphasis on the need for careful and constant nursing, and for maintaining in the ward an even temperature of about 65°F. In this respect, we were fortunate in possessing a trustworthy and capable nursing staff.

My results suggest a decided value must be placed upon the eucalyptus inunction method of treating measles, not forgetting, of course, the antiseptic treatment of the mouth and throat.

Comparing the case-mortality rate in my cases with that obtained in the 12 months previous to the commencement of inunction methods, it is seen that the former rate (5 per cent.), is less than half the case mortality rate of the previous 12 months (11 per cent.).

These clinical trials and observations have nothing to do directly with the prevention of measles. But there is no reason why all susceptible children, in the time of an epidemic in large institutions and hospitals, or even in their own homes when the children are excluded from school, should not have the treatment in a routine manner. It can do no harm, it may prevent infection, it will certainly lessen the severity of the attack if it should come, and the danger of complications is lessened.

To sum up, therefore, I beg to offer the following conclusions:

1. The thorough rubbing in of eucalyptus oil all over the body, together with energetic local antiseptic applications to the mouth and fauces, are most useful adjuncts in the treatment of measles.
2. The case-mortality is decidedly lowered.
3. Even when serious complications are present, the treatment has a beneficial influence on the course of the disease.
4. Careful and constant nursing and maintaining of an even temperature of 65°F are very important.

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