



Royal College of Surgeons of England

A focus on physical activity can help avoid unnecessary social care

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Surgeons realise the huge impact of people living longer but suffering ill-health for more years. We see patients waiting for social support before they can go home, elective patients having surgery cancelled through a lack of hospital beds and some patients nursed in ‘escalation areas’.

We also know that people after age 40 accumulate an average of one additional co-morbidity every decade^[1], contributing to problems with fitness for anaesthesia and recovery. Our daily contact with patients also shows us the stark inequalities in health; with some 85-year-olds being sprightly and some 70-year-olds suffering dreadful health. I led on ‘Exercise, the miracle cure’^[2] for Academy of Medical Colleges published in 2015. This collated evidence that 150 minutes per week of exercise reduces the risk of multiple common diseases, including heart disease (by 40%), dementia (by 30%), stroke (by 30%) and breast cancer (by 25%). Exercise works for primary prevention (never getting the condition) but also for secondary prevention (reducing the severity of complications for those who already have a condition). Yet most adults, especially older adults, do so little exercise they are putting their health at risk^[3]. ‘Exercise, the miracle cure’² identified the four main ‘proximate causes’ of health inequalities as smoking, nutrition, inactivity and alcohol; these are modifiable risk factors. Behaviour change requires a change in culture and environments².

A group of us have now published a new paper in the BMJ.^[4] showing the positive effect that small amounts of exercise can have in reducing the need for social care. Most people confuse ageing with the lack of fitness that often accompanies it. Ageing is inevitable, but this only includes reductions in skin elasticity, hearing, sight, immune function and resilience. Loss of fitness is not inevitable. Fitness enables people to retain their independence and reduce the need for social care. We present evidence showing that older people who embark on an exercise programme can reverse their physical decline by up to a decade.⁴ Those who can get to the toilet in time are less likely to need residential or live-in care.

This is not about obesity, but lack of exercise. Japan has low rates of obesity but large numbers of older people relative to the numbers of people of working age. The Japanese Orthopaedic Association is tackling

the 'locomotive syndrome' by suggesting older people do 10-minute bursts of brisk walking and squats every day to reduce the risk of care dependency.[5]

Genetics plays only a small part in causing disease, around 20%. [6] Sedentary behaviour is one of the top 4 causes of ill-health in developed countries, principally the long-term diseases. The World Health Organization recommends that public buildings should use signs to encourage the use of stairs, as well as encouraging physical, mental and social activity for all.[7]

Our new paper offers evidence that reductions in fitness are reversible, so an older person can improve to the level of an average person one decade younger. A person needs social care if they are unable to do things for themselves. The total cost of social care in the UK is £100 Billion and there are 6 million carers in the UK. Increasing fitness and strength reduces how much social care is needed. The potential savings on social care could be measured in Billions of pounds.

To achieve the changes needed, we need action at multiple levels. Health Professionals need to recommend exercise like a medicine; hospitals should aim to keep people active to reduce the 'deconditioning syndrome'. NICE guidance already includes physical activity interventions as part of treatment. But as surgeons, we can sometimes unconsciously assume a patient knows the importance of physical activity, or simply expect that a healthcare professional has already suggested this. We should promote physical activity as part of our key role.²

Environments and expectations need to change. For people to be active, we need better open spaces, more safe cycle lanes and other facilities for active travel. Friends and families should help their loved ones to become and remain active every day; those who are most frail have the greatest benefit. This is a surgical issue. 45% of hip fractures are preventable with exercise. Those who are fitter recover better. The good news is that disability, dementia and frailty can be prevented or delayed.

This blog is based on a [BMJ article](#)

There is a FREE BMJ 30-minute podcast available, for use while commuting/jogging which can be listened to on [Soundcloud](#).

[1] Barnett K, Mercer SW, Norbury M, Watt G, Guthrie B (2012) Epidemiology of multi-morbidity and implications for healthcare, research and medical education: a cross-sectional study. *Lancet* 380 (No 9836)37-43. Available from: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(12\)60240-2/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)60240-2/abstract)

[2] Academy of Medical Royal Colleges (2015) Exercise the miracle cure and the role of the doctor in promoting it. Available from: <http://www.aomrc.org.uk/publications/reports-guidance/exercise-the-miracle-cure-0215/>

[3] Public Health England (2017) Everybody Active every day: 2 year update. Available from: <https://www.gov.uk/government/publications/everybody-active-every-day-2-year-update>

[4] McNally S, Nunan D, Dixon A, Maruthappu M, Butler K and Gray M (2017) Focus on physical Activity can help avoid unnecessary social care. *BMJ* 18.10.17 <http://www.bmj.com/content/359/bmj.j4609>

[5] Japanese Orthopaedic Association (2015) The Locomotive Syndrome. Available at www.locomo-joa.jp

[6] Rappaport SM (2016) Genetic Factors Are Not the Major Causes of Chronic Diseases. *PLoS One*. 2016; 11(4): e0154387. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4841510/>

[7] World Health Organization (2009) Interventions on diet and physical activity: what works. Available from: <http://www.who.int/dietphysicalactivity/summary-report-09.pdf?ua=1>