# Primary care exercise interventions help boost physical activity levels and reduce weight in adults

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Exercise interventions delivered in primary care appear to boost levels of moderate to vigorous intensity activity in adults by an average of 14

minutes a week, finds a study published by *The BMJ* today.

While this effect might seem modest, the researchers say that even small increases in moderate to vigorous intensity physical activity are important, in helping to reduce the risk of diseases and death.

World Health Organization guidance (updated in 2020) recommends a minimum of 150-300 minutes of moderate intensity physical activity (eg. brisk walking, dancing or mowing the lawn) or 75-150 minutes of vigorous intensity physical activity (eg. running, swimming or climbing stairs) a week, and encourages people to exceed these targets.

But evidence suggests that in most countries, physical activity programs have been ineffective, with one in four adults insufficiently physically active and no improvement in participation rates evident over the past two decades.

As most adults visit their general practice once a year, health professionals in primary care are well placed to routinely prompt and provide physical activity interventions to patients. However, previous studies of physical activity interventions delivered in primary care have reported mixed results and few have investigated their effect on increasing moderate to vigorous intensity physical activity (MVPA).

To address this, a team of UK researchers reviewed 51 trials involving over 16,000 adults comparing aerobic based physical activity interventions delivered in primary care with usual care (controls). General practitioners, nurses, and physiotherapists delivered the interventions in most trials, with others also involving health educators or counselors, exercise specialists, dieticians, and researchers.

MVPA was measured using self-report in 37 trials and using a device in 14 trials. The length of trial follow-up ranged from one month to five

years.

Overall the researchers found that participants in the intervention groups increased MVPA by a modest 14 minutes a week on average relative to controls and were also more likely than controls to meet guideline targets for MVPA.

Trials that measured physical activity with devices, found no significant difference in MVPA between groups, while trials relying on self-reported activity showed an increase of 24 minutes a week in intervention groups. Interventions involving five or more contacts with health professionals, longer follow-up, or those delivered by primary care plus other professionals were associated with greater improvements.

Finally, in trials that measured weight, intervention participants weighed 1 kg less than controls at follow-up. Again, while this might appear small, the researchers point out that this amount of weight loss is important because typically adults gain around 0.5-1 kg a year, which can contribute to the development of obesity over time.

This is a large, comprehensive review that enables direct comparisons with the WHO physical activity guidelines to inform health policy decisions across the world.

The researchers do point to some limitations, such as differences in the design and quality of the included trials, but say these were adjusted for in the analyses. And they acknowledge that self-reporting might overestimate physical activity, but say their results do not appear to be implausibly inflated.

As such, they conclude: "Physical activity interventions delivered by health professionals in primary care settings appear effective in increasing participation in physical activity as measured by self-report

and reducing weight in adults."

They add: "These data could help health professionals, policy makers, and healthcare commissioners make evidence based decisions about implementing physical activity interventions during consultations delivered in primary care.

Primary care is an essential partner in global efforts to increase physical activity to levels recommended by WHO, and we now have evidence to support primary care interventions, say doctors in a linked editorial.

They acknowledge that the interventions most powerfully associated with improvements are not yet clear, but say digital innovation and tailored solutions are likely to be more effective at helping people meet activity targets. And they say future research "should focus on identifying the most effective interventions, optimizing outcomes for all population groups, and evaluating how best to decrease sedentary time as well as increasing physical activity."

**More information:** Effectiveness of physical activity interventions delivered or prompted by health professionals in primary care settings: systematic review and meta-analysis of randomised controlled trials, *BMJ* (2022). DOI: 10.1136/bmj-2021-068465 , www.bmj.com/content/376/bmj-2021-068465

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