

Q/What's the best way to motivate patients to exercise?

EVIDENCE-BASED ANSWER

A/ THERE IS NO SINGLE BEST STRATEGY, given the lack of data from rigorous comparison studies. There are, however, several interventions for adults that are effective. They include:

- writing a patient-specific behavioral health “green” prescription
- encouraging patients to join forces with accountability partners or support groups

- recommending the use of pedometers (strength of recommendation [SOR]: A, meta-analyses).

In children and adolescents, multi-component strategies that include school-based interventions combined with either family or community involvement increase physical activity (SOR: A, systematic review).

Evidence summary

The *Healthy People 2010* report calls for increasing the proportion of Americans who engage in moderate physical activity (activities that use large muscle groups and are at least equivalent to brisk walking) from 15% to 30%.¹ The report doesn't describe how best to achieve this objective.

Systematic review reveals approaches worth trying

The US Department of Health and Human Services (DHHS) and the Centers for Disease Control and Prevention (CDC) conducted a systematic review of 94 qualifying trials and assigned interventions to 1 of 3 approaches: “information based,” “behavioral and social,” and “facilities and activities.”²

Behavioral and social interventions have the best data support.² Within this category, strong evidence backed school-based physical education and accountability partners or exercise support groups. School-based physical education resulted in a median net increase in physical activity time of 50.3% (range 6.0%-125.3%); accountability partners or support groups produced a mean net increase of

44.2% (interquartile range 19.9%-45.6%).

■ **“Green” prescriptions** are primary care behavioral interventions that include measurable goals, self-reward, structured problem-solving, social network reinforcement, and relapse prevention counseling. In the DHHS review, 10 trials studied green prescriptions; the median net increase in physical activity time was 35.4% (interquartile range 16.7%-83.3%).² A trial in 42 rural and urban New Zealand general practices that added 3 telephone follow-up sessions to the green prescription showed a 10% increase in achieving 150 minutes of vigorous exercise weekly among green prescription participants compared with controls (number needed to treat=10).³

■ **Pedometers.** A systematic review using meta-regression to calculate summary effects evaluated the use of pedometers by study participants for an average of 18 weeks.⁴ Pedometer users increased their physical activity significantly, by 2491 steps per day compared with controls (95% confidence interval [CI], 1098-3885 steps per day).⁴ In adults, walking normally and walking briskly for an average of 2500 steps burns 100 and 150 kcal, respectively.⁵

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➤ **Adults benefit from patient-specific behavioral prescriptions, accountability partners or support groups, and pedometers.**

CONTINUED

CLINICAL INQUIRIES

Children and adolescents respond to school-based interventions combined with either family or community involvement.

Here's what works with kids

A British systematic review of 24 high-quality controlled trials involving adolescents and children reported significant improvements with interventions that were school-based and either community- or family-based. Multidimensional outcomes included a 42% increase in participation in regular physical activity and an increase of 83 minutes weekly in moderate-to-vigorous physical activity.⁶

A US meta-analysis of 11 after-school programs with an average contact time of 275 minutes per week showed a positive standardized mean difference effect size for physical activity (0.44; 95% CI, 0.28-0.60).⁷

Evidence for other interventions is lacking

Insufficient evidence exists to support other interventions, such as classroom-based informational health education, mass media campaigns, college-based health and physical education, and classroom-based educa-

tion focused on reducing television viewing and video-game playing.²

Recommendations

The British National Institute for Health and Clinical Excellence (NICE) has found sufficient evidence to recommend brief interventions in primary care. They include:

- using a validated tool to identify inactive patients
- recommending at least 30 minutes of patient-specific exercise at least 5 days per week
- establishing exercise goals
- presenting patients with written material on the benefits of exercise and local exercise opportunities
- following up several times over a 3- to 6-month period.⁸

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