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

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## 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, multicomponent strategies that include school-based interventions combined with either family or community involvement increase physical activity (SOR: **A**, systematic review).

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

## 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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**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 education 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] JFP

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