

# Closest Thing to a Wonder Drug? Try Exercise

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By AARON E. CARROLL

After I wrote last year that diet, not exercise, was the key to weight loss, I was troubled by how some readers took this to mean that exercise therefore had no value.

Nothing could be further from the truth. Of all the things we as physicians can recommend for health, few provide as much benefit as physical activity.

In 2015, the Academy of Medical Royal Colleges put out a report calling exercise a "miracle cure." This isn't a conclusion based simply on some cohort or case-control studies. There are many, many randomized controlled trials. A huge meta-analysis examined the effect of exercise therapy on outcomes in people with chronic diseases.

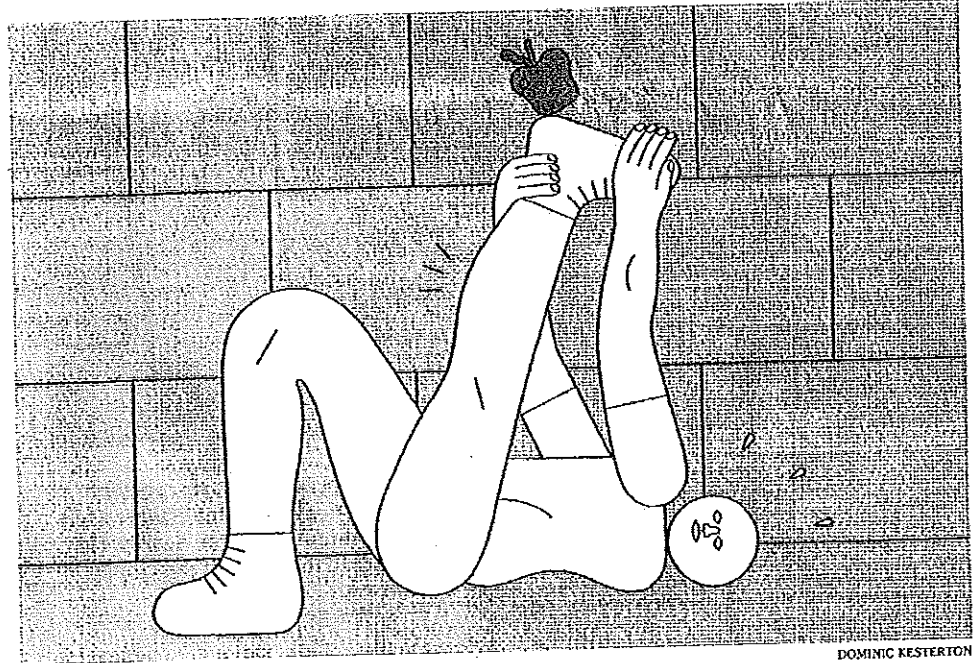
Let's start with musculoskeletal diseases. Researchers found 32 trials looking specifically at the effect of exercise on pain and function of patients with osteoarthritis of the knee alone. That's incredibly specific, and it's impressive that so much research has focused on one topic.

Exercise improved those outcomes. Ten more studies showed, over all, that exercise therapy increases aerobic capacity and muscle strength in patients with rheumatoid arthritis. Other studies proved its benefits in other musculoskeletal conditions, like ankylosing spondylitis, and even some types of back pain.

For people (mostly middle-aged men) who had had a heart attack, exercise therapy reduced all causes of mortality by 27 percent and cardiac mortality by 31 percent. Fourteen additional controlled trials showed physiological benefits in those with heart failure. Exercise has also been shown to lower blood pressure in patients with hypertension, and improve cholesterol and triglyceride levels.

People with diabetes who exercise have lower HbA1c values, which is the marker of blood sugar control, low enough to probably reduce the risk of complications from the disease. Twenty randomized controlled trials have shown that patients with chronic obstructive pulmonary disease can walk farther and function better if they exercise.

Multiple studies have found that exercise improves physical function and health-related quality of life in people who have



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Parkinson's disease. Six more studies showed that exercise improves muscle power and mobility-related activities in people with multiple sclerosis. It also appeared to improve those patients' moods.

The overall results of 23 randomized controlled trials showed that exercise most likely improves the symptoms of depression. Five others appear to show that it improves symptoms in patients with chronic fatigue syndrome. In trials, exercise even lessened fatigue in patients who were having therapy for cancer.

What other intervention can claim results like these?

Even studies of older, hospitalized patients show a beneficial effect from multidisciplinary interventions that include exercise. Those randomized to such interventions in the hospital were more likely to be discharged to go home, and to spend less time in the hospital over all — and at a lower cost.

Although we don't think of it this way, you can make a pretty good argument that exercise is as good as drugs for many conditions. A 2013 meta-analysis of meta-analyses (that's how much data we have) combined and analyzed the results from 16 reviews of randomized controlled trials of drug and exercise interventions in reducing mortality. Collectively, these included 305 trials with almost 340,000 participants.

Diuretic drugs (but not all drugs) were shown to be superior to exercise in preventing death from heart failure. But exercise was found to be equally good as

drugs in preventing mortality from coronary heart disease. Exercise was better than drugs in preventing death among patients from strokes.

Many people will be surprised at how little you need to do to achieve these results. Years ago, in an effort to get in shape, I tried the P90X routine. It proved too hard for me. Later, when I tried the Insanity workout, it beat me so

If you could put it in a pill, it would be like a 'miracle cure.'

badly that people at work kept asking me if I was ill. Two years ago, I tried P90X3. It was a bit more manageable, but I still couldn't keep it up.

I have not been alone in thinking that physical activity to improve health should be hard. When I hear friends talk about exercising, they discuss running marathons, participating in cross-fit classes or sacrificing themselves on the altar of SoulCycle. That misses the point, unfortunately. All of these are much more than you need to do to get the benefits I've described.

The recommendations for exercise are 150 minutes per week of moderate intensity physical activity for adults, or about 30 minutes each weekday.

Moderate intensity is probably

much less than you think. Walking briskly, at 3 to 4 miles per hour or so, qualifies. So does bicycling slower than 10 miles an hour. Anything that gets your heart rate somewhere between 110 and 140 beats per minute is enough. Even vacuuming, mowing the lawn or walking your dog might qualify.

Today, my goals are much more modest. Trekking from my office to the clinic and back again gives me 30 minutes of exercise. Or, I walk to the supermarket from my office to grab lunch, at a mile each way. In colder weather, I spend half an hour on the elliptical machine. Doing this five days a week gets me the activity I need.

Although it feels as if there's nothing we can do to change people's behavior, there is evidence to the contrary. A systematic review and meta-analysis of advice and counseling by health professionals found that promotion of physical activity works.

Doctors and clinics that made efforts to promote exercise to patients needed to engage 12 adults on the subject to get one additional adult to meet recommended levels of activity one year later. That might not sound impressive, but it's one of the better such results.

After the Academy of Medical Royal Colleges wrote its report, an editorial in the BMJ, a prominent medical journal, countered that exercise wasn't a "miracle cure." Instead, the authors argued it was "the best buy for public health."

If that's the best "counterpoint," then physical activity seems like a no-brainer.

# Core Curriculum



**Aging Mastery Program**  
National Council on Aging

**Navigating Longer Lives: The Basics of Aging Mastery** – Introduction to the program and its philosophy with a special emphasis on the new realities of aging, making the most of the gift of longevity, and taking small steps to improve health, financial well-being, social connectedness, and overall quality of life.

**Exercise and You** – Discussion of the importance of exercising both the mind and the body with a focus on strategies for incorporating meditation, aerobics, strengthening, flexibility, and balance into daily routines.

**Sleep** – Overview of how sleep patterns change as we age, the importance of monitoring the sleep cycle, and simple strategies to improve sleep.

**Healthy Eating and Hydration** – Review of nutrition as it relates to aging with a focus on strategies for incorporating healthy eating and hydration into daily routines.

**Financial Fitness** – Introduction to strategies for remaining economically secure in an era of longevity with an emphasis on setting financial goals and setting financial boundaries with friends and families.

**Advance Planning** – Guidance around key steps needed to manage health care, financial, and housing/care decisions with a focus on considering the role of personal values and beliefs in these decisions.

**Healthy Relationships** – Exploration of the benefits of being socially active, as well as the risks of isolation with a focus on practical strategies for continuing to build and strengthen friendships and family connections as we age.

**Medication Management** – Best practices on how to take medications as directed, how to store medications safely, and how to keep track of multiple medications.

**Community Engagement** – Introduction to the value of continuing contribution and small acts of kindness with a focus on identifying personal aptitudes for meaningful volunteer and civic opportunities.

**Falls Prevention** – Overview of the importance of falls prevention among older adults along with strategies to prevent falling.

# Elective Classes

## Physical Health

### *Communicating With Your Doctor*

Introduction to the importance of good communication with health care teams with a focus on gaining the skills to become more empowered and effective in these interactions.

### *Making the Most of Medicare*

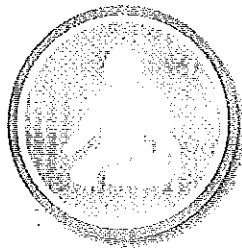
Overview of Medicare preventive benefits with the goal of having participants reflect on their healthcare use patterns with respect to annual check-ups, immunizations, preventive tests, counseling, and other benefits.

### *Nutritional Vital Signs: Preventing and Treating Malnutrition*

An awareness class on the myths, realities, and prevalence of malnutrition among older adults with the goal of helping individuals interpret warning signs and understand options for both treatment and prevention.

### *Memory Matters*

An interactive class highlighting normal age-related memory changes and highlighting basic skills—Active Attention and Spaced Retrieval—to aid memory.



**Aging Mastery Program®**

National Council on Aging

## Financial Health

### *Your Home as a Strategic Asset*

Discussion of issues related to aging in place and the health, social, and financial questions to consider when deciding to stay in one's home. Review of various home financing options, including reverse mortgages.

### *Rightsizing Your Life*

Guidance around the pros and cons of rightsizing (downsizing) by thinking through both the concerns and upsides to moving to a different living situation, along with the practical considerations of such a move.

### *Safe Home/Healthy Home*

Introduction to the impact of the home environment on a person's health and safety with special attention to falls prevention, fire safety, and environmental health as well as do-it-yourself low-cost/no-cost solutions for areas of potential concern.

## Life Enrichment

### *Intergenerational Connections*

Overview of the benefits of intergenerational connections for older adults with a focus on strengthening intergenerational interactions/relationships within the family and within the community.

### *Aspirations/Bucket Lists*

A motivational class to help individuals discover strategies to align personal goals with societal benefits—linking what they would like to do with why they would like to do it.

