



How to Get the Most Out of Exercise

You don't need another article about the benefits of exercise. Everybody knows it is essential for optimal health. What you may need, however—besides motivation, which you have to figure out for yourself—are practical tips for getting the biggest bang for your exercise buck.

What Is the Best Type of Exercise?

When I was in my prime, I played team sports and tennis, ran marathons, and cycled across the country. The focus back then was on aerobic exercise for cardiovascular fitness, weight control, and overall health. Weightlifting was for guys with six packs and bulging biceps.

We now know that muscle-building resistance training (lifting, pushups, squats, lunges, etc.) is equally important. Strengthening exercise helps with blood sugar control and is vital for maintaining bone mineral density. Increasing lean muscle mass boosts basal metabolic rate, so you burn more calories at rest. And it is the only way to stave off age-related muscle loss (sarcopenia). You may not care if you don't have a physique like The Rock's, but I guarantee you want to retain your ability to climb stairs, carry loads, and be active and independent.

How Much Do You Need?

New exercise guidelines released in 2018 recommend 150–300 minutes of moderate-intensity or 75–150 minutes of vigorous-intensity activity per

week. They also call for at least two days of muscle-strengthening activities. A key point is simply to move more and sit less. In fact, the guidelines stress that any moderate-to-vigorous activity such as housework, gardening, climbing stairs, and hauling groceries counts towards your weekly goal. Tracking your activity with a Fitbit, pedometer, or phone app isn't necessary, but these devices can provide motivation

to do more—and you may be surprised by how much activity you chalk up in a typical day.

If time is an issue for you, consider high intensity interval training (HIIT). Multiple studies show that the aerobic and strengthening benefits of HIIT, which involves short bursts of vigorous activity, are every bit as good as longer, more moderate exercise. There are many versions

of HIIT, but one program I've used is the 7-Minute Workout (available as a free phone app). It involves 14 30-second exercises such as pushups, wall sits, jumping jacks, planks, and lunges with 10-second breaks in between. Seven minutes doesn't sound like much, but I guarantee this will get your heart pumping and your muscles working hard.

When Is the Best Time to Exercise?

Morning workouts have some advantages. Exercise improves alertness, mental clarity, and mood—benefits you continue to reap for hours afterwards. Working out before eating also optimizes fat burning and facilitates weight loss. And on a practical level, we tend to have



Inside This Issue

- Get the Most Out of Exercise . . . 1
- Works for Me 5
- Fatty Liver Disease 6
- Knee Pain, Thyroid & More 4
- Drugs & Mental Health 5
- Wellness Medicine 8
- Restless Leg Syndrome 4
- Monthly Health Quiz 5
- Did You Know? 8

fewer unexpected interruptions and less burnout early in the day. As for evenings, some say exercising before bedtime makes it hard to fall asleep, but research does not support this belief.

The primary recommendation in the new guidelines is to be more active throughout the day. Take the stairs instead of the elevator; do a few strengthening exercises in the afternoon (an antidote for the post-lunch slump); or go for a 15-minute walk after meals (this is especially good for diabetics). In short, incorporate exercise whenever you can.

Where Should You Exercise?

Gyms and fitness centers are great if you use the weight machines, pool, sauna, or exercise classes, and a few sessions with a personal trainer to learn proper techniques are invaluable. (Several Medicare Advantage programs pay membership fees; visit silversneakers.com to learn more.) However, joining a gym is not a reliable incentive to exercise—two-thirds of memberships go unused. Furthermore, driving, parking, changing clothes, and the like can take longer than the workout itself!

If you're like me and just want to get it over and done with, take a brisk walk or jog around the neighborhood, park, or mall. You can also do more intensive workouts at home. A huge array of free exercise videos are available online via your computer, TV, or smartphone—everything from old-school Jane Fonda and Richard Simmons aerobics to yoga and Pilates classes to kettlebell, exercise bands, and other resistance workouts. (Search youtube.com for the type of exercise you're interested in. Blogilates, Yoga With Adriene, Fitness Blender, Hasfit, and others get good reviews.)

Is Stretching Necessary?

Back in the day, we began workouts with static stretching, holding each stretch for 20–30 seconds.

Then studies found that stretching cold muscles doesn't prevent injury and, if done prior to vigorous exercise, may actually decrease muscle strength. So it was replaced with dynamic stretching, which involves warm-up movements like leg swings, arm rotations, and torso twists. Several minutes of static stretching after working out is fine, but some fitness gurus shun it altogether.

Nevertheless, yoga and other practices that involve stretching can improve joint mobility and range of motion, which is a desired goal for everyone. They also increase flexibility, although bodies have a wide range of natural bendiness and you can't expect to be as flexible as a ballerina or yoga master. Furthermore, stretching feels good, and informal "stretch breaks" (after hunching over a computer, for example) help relieve muscle tension.

How Can You Relieve Muscle Soreness?

A few months ago, I got carried away with squats and lunges, and two days later, I could barely climb the stairs. I was experiencing delayed-onset muscle soreness (DOMS), caused by the breakdown of muscle fibers during vigorous or unfamiliar workouts. DOMS can be intense, but don't let it discourage you from exercising. It's a normal part of the muscle-building process.

Massage may help relieve DOMS; however, stretching, compression, and icing all struck out in clinical trials. Some people take ibuprofen, but it does nothing to prevent DOMS and, like all NSAIDs, has a downside. You might try supplemental curcumin. A handful of small studies have shown that this natural anti-inflammatory, taken before exercise, reduces muscle soreness. Time, however, is the best healer, as discomfort generally tapers after 48–72 hours. And the best preventive is to increase your exercise intensity gradually.

DR.WHITAKERS



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What and When Should Exercisers Eat?

Unless you're a protein-pounding bodybuilder or a carb-loading distance runner, exercise requires no special nutritional considerations beyond a healthy whole-foods diet with adequate carbohydrates (the body's main energy source) and protein (broken down into amino acids used to build muscle and other tissues). Although most people get enough carbs in their daily diet, up to a third of older Americans do not meet the modest RDA for protein (55–65 grams). This is unfortunate because protein synthesis becomes less efficient, muscle loss accelerates, and protein requirements increase with age. Many experts believe a more prudent target is 25–30 g per meal (the amount in an average serving of fish, poultry, or meat) plus one or two 12–15 g snacks per day.

Does it matter if you eat before or after exercise? If weight loss is a goal, exercising on an empty stomach and waiting a couple of hours before eating revs up fat burning. This is a rationale behind my mini-fast with exercise and other intermittent fasting programs. However, many serious exercisers who work out long and hard maintain that refueling with protein and carbohydrates within 30–60 minutes after a workout maximizes results and recovery. Although this “anabolic window” isn't necessary for those of us who engage in less intense exercise, feeding your body the nutrients needed for optimum health—at any time over the course of the day—is essential.

What About Protein Powder and Other Supplements?

Protein powder is a great way to augment your protein intake. Clinical trials involving adults of all ages have found that adding supplemental protein to resistance training increases gains in strength and lean muscle mass compared to exercise alone. Among the many types of supplemental protein now available (hemp, pea, rice, etc.), whey is still my favorite because it's rich in leucine, an amino acid that is

especially efficient at stimulating muscle protein synthesis in older people.

Creatine tops the list of other exercise-enhancing supplements. It boosts energy reserves in the muscles, which allows high-intensity exercisers to work out longer and harder and thus build more muscle. The

usual dosage is a larger initial “loading dose” followed by 5 g per day. Some bodybuilders take branched chain amino acids (isoleucine, leucine, and valine) or HMB (a metabolite of leucine) to stimulate muscle protein synthesis. Small studies suggest that L-carnitine 1,500–2,000 mg a day may improve exercise recovery and strength in older people. And a daily multivitamin, fish oil, and extra vitamin D should be the foundation of any supplement program.

Never Too Late to Start

It's never too late to start exercising. A 2019 study found that older people who didn't become physically active until their 40s and beyond had a 32–35 percent lower risk of premature death than inactive individuals—a risk reduction similar to lifelong exercisers!

I know working out can be a slog, especially if you aren't in the habit of exercising. But the most heartening message from the new guidelines, as reported in a *JAMA* editorial, is “that even small amounts of physical activity are beneficial and that reductions in the risk of disease and disability occur by simply getting moving.”

Physical activity helps prevent eight types of cancer (bladder, breast, colon, endometrium, esophagus, kidney, stomach, and lung); reduces the risk of dementia (including Alzheimer's disease), all-cause mortality, heart disease, stroke, high blood pressure, type 2 diabetes, and depression; and improves bone health, physical function, and quality of life... lowers the risk of falls and injuries from falls... reduces the risk of excessive weight gain and helps people maintain a healthy weight... can decrease pain for those with osteoarthritis; reduce disease progression for hypertension and type 2 diabetes; reduce symptoms of anxiety and depression; and improve cognition for those with dementia, multiple sclerosis, ADHD, and Parkinson's disease. — *Physical Activity Guidelines for Americans, 2nd edition*. Washington, DC: US Department of Health and Human Services; 2018.

References

- [Liao CD, et al. Effects of protein supplementation combined with resistance exercise on body composition and physical function in older adults. *Am J Clin Nutr*. 2017 Oct;106\(4\):1078–91. doi: 10.3945/ajcn.116.143594. Epub 2017 Aug 16.](#)
- [Saint-Maurice PF, et al. Association of leisure-time physical activity across the adult life course with all-cause and cause-specific mortality. *JAMA Netw Open*. 2019 Mar 8;2\(3\):e190355. doi:10.1001/jamanetworkopen.2019.0355](#)
- [Thompson PD, et al. New physical activity guidelines: A call to activity for clinicians and patients. *JAMA*. 2018 Nov 30;320\(19\):1983–4.](#)

Dear Dr. Whitaker

Q *I have been diagnosed with hypothyroidism and started on thyroid replacement. I would prefer to not take a drug and have changed my diet to avoid kale and broccoli, which are toxic to the thyroid. Are there any supplements I can take to improve thyroid function? — Ellison, Michigan*

A Iodine is required for the production of thyroid hormones, and selenium reduces levels of thyroid antibodies, which are elevated in autoimmune thyroiditis, a common cause of hypothyroidism. Therefore, I recommend a daily multivitamin with the RDA of iodine (150 mcg), 200 mcg of selenium, plus magnesium, zinc, and other supportive nutrients. However, no supplement—including targeted products that contain kelp, extra iodine, and/or glandulars—can take the place of thyroid replacement drugs. As for “toxic” foods, there’s a lot of misinformation out there. Broccoli, kale, and other cruciferous vegetables do contain compounds that interfere with iodine uptake, and eating pounds a day could suppress thyroid function. However, I wouldn’t worry about ill effects in amounts normally eaten. Enjoy these foods and reap their multiple health benefits.

Q *I had my right hip replaced a few months ago due to a congenital deformity. However, my left knee hurts currently because I have been favoring my right leg. Can you advise me of any supplements that might help? — Allen, California*

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A Natural anti-inflammatories that help with pain relief—and are much safer than ibuprofen and other NSAIDs—include high-dose fish oil, ginger, boswellia, and, my favorite, curcumin. I also recommend Instaflex Pain Relief Cream (formerly OxyRub), a topical cream that is quite effective for painful joints and muscles. DMSO works, too, but it stinks.

To support cartilage regeneration in your knee and other joints, I suggest trying glucosamine, hyaluronic acid, and undenatured type II collagen (UC-II). Because you’ve been compensating for this hip problem most of your life—and developed muscle tightness and misalignment in other joints as a result—physical therapy would be very helpful. Be patient. It will likely take some time to retrain supporting muscles.

Q *I would like your opinion on Prevagen. I have been taking this supplement for about a year after hearing ads on the radio, but I have not noticed improvements in my memory. Then I read about lawsuits because of false advertising. It is expensive. Do you think I am wasting my money? — Brian, California*

A I am more disturbed by the lack of research on Prevagen than the advertising. Until persuasive research supports the claims that this supplement improves age-related memory loss, I’d have to say save your money.

New Online: An “Itch” That Has to Be Scratched

If you’ve ever had an itch that just had to be scratched, you have an inkling of what one in 10 Americans who have restless leg syndrome (RLS) deal with night after night. RLS’s itchy, tingling, “creepy-crawly” symptoms, which provoke an overwhelming urge to move the legs in order to get some relief, are more than unpleasant. They seriously impair sleep. I don’t have a slam-dunk for this neurological condition, but there are some non-drug therapies that may help.

Iron deficiency is common in RLS, and supplemental iron, taken along with vitamin C to increase absorption, is a proven treatment. (Have your iron level tested before taking iron supplements.) Low levels of magnesium and vitamin D have also been linked with RLS, so a good multi plus extra vitamin D 2,000–5,000 IU are recommended. Additional preventive therapies include exercise, adjustable foot wraps (see the March 2019 issue), and laying off caffeine, alcohol, and medications such as antidepressants, Benadryl, and related antihistamines that may trigger RLS symptoms. A home remedy you might try is a bar of soap under the covers. Weird, I know, but a number of people swear by it.



Works for Me...

► **Green Bananas** *I eat a lot of bananas, which are high in fiber, potassium, and other vitamins and minerals. I did some research and found that green bananas have a lower glycemic index as well as higher levels of prebiotics than ripe ones. I started adding green, rather than yellow bananas to my shakes in the morning. I have also found that when I snack on bananas, I now prefer them green. They are easy to grab on the go, are very filling, and a better choice than my old meal replacement bars. — Katie, Texas*

Green bananas are a good source of resistant starch, a type of carbohydrate that, like fiber, is “resistant” to breaking down into glucose during the digestive process. Therefore, it passes into the large intestine where it serves as a prebiotic, providing fuel for resident bacteria and supporting the gut microbiota, which enhances intestinal and overall health. Research also points to positive effects on insulin sensitivity and blood sugar. In fact, the FDA has approved a qualified health claim stating that

resistant starch may reduce the risk of diabetes. Recent studies suggest it curbs appetite and thus helps with weight control as well. Resistant starch is also found in legumes, seeds, cooled cooked potatoes and rice, green banana flour, and resistant starch powders.

► **Vitamin D Supplements** *I can attest that vitamin D supplementation works—but it sure takes a while! Last year, my blood work showed my vitamin D level was 30 ng/ml, and while this is considered within “normal” range, my doctor prefers to see it higher. She put me on 5,000 IU D3 per day, and it took that full year to get my level closer to her liking—72 ng/ml. I feel so much more energetic and healthier overall. — L.L., Florida*

► **Essential Oils** *I enjoyed your comments about essential oils and want to add some of my favorites. Lavender is great for sleep and all things calming, skin and scars, nosebleeds, burns, and emotional balancing. Petitgrain has a woody, floral, citrus scent and is great for the mind, nervousness, anxiety, heart palpitations, hypertension, memory, focus, skin, and nausea. To name a few! — A.B., Montana*



Do you have a Health Tip to share? We'd love to hear it! Send it to worksforme@drwhitaker.com.

Health Hack: Are Your Drugs Harming Your Mental Health?

Are you taking medication to lower blood pressure or treat heartburn? Ibuprofen or gabapentin for pain? How about sleeping pills, anxiety meds, or oral contraceptives? They could be affecting your mental health. More than 200 popular medications list depression as a side effect—and the more of them you take, the greater the risk. In a 2018 study, researchers examined links between depression and the use of these medications found that 15 percent of study participants taking three or more potentially problematic drugs suffered with depression. Taking just one or two also increased risk.

Monthly Health Quiz

Tummy Time: True or False?

- A) A full stomach can hold as much as eight cups of food and liquid.
- B) More than a third of Americans have been infected with *H. Pylori*, the bacteria that causes stomach ulcers and cancer.
- C) You shouldn't drink water with meals because it dilutes stomach acid and impairs digestion.
- D) Borborygmus is a serious, but often overlooked stomach problem.

Answer:

A is true, but don't try it. B is also true; however, *H. Pylori* causes no problems for most people. C is a myth that refuses to die. D is false. Borborygmus is simply stomach growling, the noises made as food and gas move along the digestive tract.



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Notable Quote

“And is not the bodily habit spoiled by rest and idleness, but preserved for a long time by motion and exercise?”

— *The Dialogues of Plato*,
Greek philosopher, 428/427–348/347 BC

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Given the prevalence of these conditions, the payout will be astronomical. To date, however, not a single medication has been approved. The one study that did report a positive outcome involved patients with NASH and compared the effects of the diabetes drug Actos (pioglitazone), high-dose natural vitamin E (800 IU), or a placebo. Contrary to expectations, vitamin E stole the show, improving liver enzymes, inflammation, fatty infiltration, and disease progression.

Vitamin E should obviously be first-line therapy, along with other antioxidants such as vitamin C, selenium, alpha lipoic acid, N-acetyl-cysteine, and milk thistle (silymarin) that boost production of glutathione, the primary antioxidant in the liver. Choline (phosphatidylcholine) is another important nutrient for liver health, as it transports fats away from the liver, and deficiencies can lead to NAFLD. Curcumin, a potent anti-inflammatory, also has positive effects. One supplement I particularly recommend is Meriva (curcumin bound to phosphatidylcholine for better absorption). This combination of curcumin and choline has been demonstrated in clinical trials to reduce liver enzymes and fatty deposits in patients with NAFLD.

Beyond the Liver

Some doctors may tell you that early-stage NAFLD is benign and in no need of treatment, but they're ignoring its links with other, seemingly unrelated health problems. In past newsletters, we've discussed the ties between diabetes, heart disease, obesity, insulin resistance, and metabolic syndrome. Many experts now consider NAFLD to be yet another manifestation of this cluster of metabolic disorders.

All these conditions clearly overlap. Nine in 10 obese people have fatty liver disease, and excess belly fat is highly predictive, regardless of weight. Up to 70 percent of diabetics have NAFLD and 30 percent have NASH. And like diabetes, NAFLD is an independent risk factor for cardiovascular disease and premature death. As you can see, it's a tangled

web—if you have one of these conditions, you likely have others. The good news is that they can all be ameliorated with weight loss and lifestyle changes. (See the recommendations box below.)

My Recommendations

- ▶ Pay attention to subtle changes in liver function tests, and work with your doctor to rule out potential problems such as NAFLD, hepatitis, hemochromatosis, and toxic exposures.
- ▶ Get serious about controlling obesity, diabetes, and metabolic syndrome—which dramatically increase risk of fatty liver disease—with diet changes, exercise, and targeted supplements.
- ▶ Suggested daily dosages of liver-nurturing supplements are vitamin E 800 IU, vitamin C 1,000 mg, selenium 200–400 mcg, alpha lipoic acid 600 mg, N-acetyl cysteine 600–1,200 mg, milk thistle (silymarin) 900 mg, and curcumin/phosphatidylcholine (Meriva) 1,000 mg.

Diagnose Yourself

If you have been diagnosed with fatty liver disease, don't despair. With proper support, the liver has a remarkable ability to regenerate. Unfortunately, most of the 80–100 million Americans who are afflicted don't know they have it. NAFLD and NASH are silent diseases, and even cirrhosis may have few overt symptoms. Lab test abnormalities reveal advanced disease, but slight elevations in liver enzymes that could be indicative of NAFLD may be overlooked. Ultrasounds are pretty good at detecting fat in the liver, and liver biopsies pick up scar tissue. However, these tests are not routinely performed. As a result, NAFLD often goes undiagnosed and untreated.

So what do you do? Truth be told, you can probably diagnose yourself. If you are obese, have a large waist circumference, eat a lot of sugar and refined carbs, or have diabetes or any aspect of metabolic syndrome, odds are greater than average that you have some degree of fatty liver disease. To avoid trouble down the road, assume you have it and act accordingly.

References

- [Panahi Y, et al. Efficacy and safety of phytosomal curcumin in non-alcoholic fatty liver disease. *Drug Res \(Stuttg\)*. 2017 Apr;67\(4\):244–51.](#)
- [Sanyal A, et al. Pioglitazone, vitamin E, or placebo for nonalcoholic steatohepatitis. *N Engl J Med*. 2010 May 6;362\(18\):1675–85.](#)
- [Schwimmer JB, et al. Effect of a low free sugar diet vs usual diet on nonalcoholic fatty liver disease in adolescent boys. *JAMA*. 2019 Jan 22;321\(3\):256–65. doi: 10.1001/jama.2018.20579.](#)
- [Ullah R, et al. Role of nutrition in the pathogenesis and prevention of non-alcoholic fatty liver disease: recent updates. *Int J Biol Sci*. 2019;15\(2\):265–76.](#)
- [Zhang HJ, et al. Effects of moderate and vigorous exercise on nonalcoholic fatty liver disease. *JAMA Intern Med*. 2016;176\(8\):1074–82.](#)

Innovations in Wellness Medicine

Napping for Lower Blood Pressure

Monophasic sleep—one block of sleep per 24 hours—is so ingrained in our country that we rarely question it. However, biphasic sleep (two segments, including an afternoon siesta) is the accepted pattern in some cultures. They may be onto something. In addition to decreasing daytime drowsiness, napping has been shown to improve energy, mood, alertness, and cognitive function. And a new study presented at the 2019 American College of Cardiology Scientific Session suggests it may also lower blood pressure.

Greek researchers tracked hypertensive patients with ambulatory monitors and found that the average 24-hour systolic blood pressure of those who took a midday nap was 5.3 mm Hg lower than non-nappers—a drop similar to what is expected from low-dose blood pressure medication and more significant than salt restriction. The average nap was 49 minutes, and the longer the sleep, the greater the drop in blood pressure. Although naps aren't for everyone, an afternoon snooze might just be your ticket to better blood pressure control.

Vitamin D for Urge Incontinence

When you gotta go, as they say, you gotta go—and if you have urge incontinence (overactive bladder), you gotta go right now! Urge incontinence is often treated with anticholinergic drugs like Detrol and Ditropan, but they aren't very effective and are linked with drowsiness, confusion, and memory loss. Addressing underlying causes such as infections, multiple sclerosis, diabetes, and Parkinson's is a good idea, but there is one potential cause that is routinely ignored: vitamin D deficiency.

A 2018 study of Korean men with overactive bladder found that symptoms worsened in winter when vitamin D levels were at their lowest—and improved significantly when deficiencies were corrected with supplements. This finding was strengthened by a 12-week placebo-controlled pilot study published earlier this year involving women age 50 and older who had urge incontinence and vitamin D levels of 30 ng/mL or less. The women who took 50,000 IU of vitamin D3 per week had a 43 percent average decrease in urgency episodes compared to a 28 percent decrease in the placebo group. Benefits were greatest in African-American women (63 percent with vitamin D vs. 23 percent with placebo) and obese women (54 percent vs. 33 percent). Although this research is preliminary, it makes sense to try high-dose vitamin D (either 50,000 IU/week or 5,000 IU/day.)

Did You Know?

- A recent study strengthens links between statins and diabetes, showing that these drugs raise risk by 38 percent.
- New hepatitis C cases tripled between 2010–2015 due to increased use of injected opioids.
- Retinal scans are a promising tool for diagnosing early Alzheimer's and Parkinson's.
- Pedestrian deaths reached a 30-year high in 2018, and a likely contributor is smartphone distractions.
- Italian researchers recently reported that weight loss significantly reduced migraine frequency, intensity, and duration.
- The world's largest Tyrannosaurus rex skeleton, discovered in Canada, is 43 feet long.
- An Israeli study found that women snored as loudly as men—including the 28 percent who claimed they didn't snore at all.
- Less than one percent of US health care expenditures goes towards prevention of chronic diseases.
- It takes 47 days for a chicken to get to market weight of 6.3 pounds—half the time it took 50 years ago.
- Folate (folic acid) levels tend to decline with increasing sun exposure during the summer.
- Ten percent of American kids have fatty liver disease.
- Nearly half of US college students are older than 24, and a quarter of them are parents.
- Zerophobia, a smartphone app used with inexpensive virtual reality goggles, significantly reduced acrophobia (fear of heights) in a recent study.

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