How to Make Exercise a Long-Term Habit

I
don’t know if it’s out of tradition or guilt, but it’s that time of year when many of us make changes to improve our health. This is usually reflected in the soaring number of new health club memberships, which historically rise 30 to 50 percent in the month of January.

It doesn’t take long for all of those good intentions to begin to wane. New members start to lose their motivation and their gym visits start to plummet within three weeks. There’s usually another peak in new memberships and visits starting in March—another short-lived attempt to get in shape for the spring break. None of this is a surprise to those in the gym and health club industry. They base their entire business model on the fact that only 18 percent of those with a membership will use it consistently for longer than a month.

This entire scenario, which repeats every year like clockwork, stems from most people’s erroneous perception of health.

First, most people have the attitude that health isn’t a problem... until it actually becomes a problem. In other words, there’s no need to make any lifestyle changes until a health problem arises.

Second, people often focus on short-term gains instead of taking a long-term approach. We are programmed to look for quick fixes and instant gratification. But acquiring good health is the result of cultivating and following good habits over years and decades, not just a few weeks. If you want to improve or maintain your health, it has to become a habit.

Making a Habit Stick

Research shows that it takes an average of 66 days to make a new habit stick. The average time varied from 18 to 254 days. (Eur J Soc Psychol 2010 Oct;(40):998–1009)

If you want to develop a new behavior, it’s going to take at least two months—and don’t be discouraged if it takes longer. The take-home message is to not give up so quickly. If you stick with the change long enough, you’ll have a habit that becomes so second nature that you don’t even have to think about it.

We all have these types of habits. Maybe yours is needing a cup of coffee first thing in the morning. Or perhaps it’s checking email as soon as you get up, or brushing your teeth, reading the headlines of the morning paper, feeding the dogs, listening to the news, going to the bathroom, etc.

Unfortunately for many, exercise isn’t one of those “second nature” habits, and that’s why we have such high rates of obesity, diabetes, and cardiovascular disease. But there’s an effective way to make it so that it turns into one of those kinds of habits: Link exercise with one of your current habits.

For example, while you’re drinking that first cup of coffee in the morning, or immediately after you’ve finished clearing the dinner
table, put on your walking shoes. Linking these activities incorporates exercise into your established daily routine, and doing it day after day will cause it to become a habit.

Breaking a habit is like the flip-side of the coin. But your brain has the established neural pathways in place to do it. To disrupt a pattern or habit, it’s far easier to do something new (replacement behavior) than it is to try and stop cold turkey. This is one of the reasons nicotine gum and/or inhalers can be effective in smoking cessation.

In last month’s newsletter, I reported on a study that found that chewing small pieces of lime could be used to help quit smoking. The lime slices not only triggered sensations in the brain but also served as a substitute for putting a cigarette in the mouth.

Just make sure that whatever replacement behavior you substitute is a positive one. Replacing smoking with candy just creates another problem. And keep in mind that kicking an old habit can take longer than developing a new one. The longer you’ve had a habit, the longer it could take to get rid of it.

**A Simple Way to Make Exercise More Effective**

When it comes to developing an exercising habit, you don’t need a gym membership. Walking is free and something almost everyone can do, and it reduces stress, improves cardiovascular function, and aids in weight loss. And there’s a very easy way to make it even more effective.

Back when the dinosaurs roamed the Earth and I was in junior high and high school track, ankle weights seemed to be the rage. I’m not sure why they fell out of favor. It’s probably because they are so low-tech; I don’t think there’s an ankle weight out there with Bluetooth capabilities.

Or, it may be that ankle weights make walking less efficient—meaning, when you wear them, you burn more calories. When I was in school, almost everyone was skinny and trying to put on a little weight rather than lose it.

There was a very interesting study done in 1969 that compared the “energy cost” to soldiers when carrying weight loads on their head, in their hands, or on their feet. The researchers found that weight on the feet produced a six-fold increase in energy cost compared to the same weight carried on the head, and a three-fold increase in energy cost to the same weight carried in the hands. *(J Appl Physiol 1969 Nov;27(5):687–90)*

The military looked at this study and immediately saw the advantage of developing lighter footwear for soldiers. When I was researching this article, it became very apparent that the military, firefighters, and similar professions have spent a considerable amount of money trying to find ways to decrease caloric expenditure while walking. It makes perfect sense, since all the calories they burn have to be replaced with additional food supplies.

As you might expect, there have also been studies testing the effects of shoe weight on running performance. The University of Colorado Boulder even has a Locomotion Laboratory. The running shoes available these days are practically as light as a feather.

I find research like this fascinating because I look at it from a different viewpoint—practicality. To me, it outlines a simple, inexpensive technique that can be used to benefit anyone wanting to lose excess weight, strengthen hip and leg muscles, and build cardiovascular reserve.

For example, a man who weighs 190 pounds and walks three miles per hour burns 133 calories for every mile he walks. Studies show that a similar walk with 3-pound ankle weights on each leg increases the calories burned to over 600!

The average person burns between 1,600 to 2,500 calories in a day. (Men burn between 1,900 and 2,500 calories, and women burn 1,600 to 2,000.) Applying
these averages to the study on leg weights, you can see that by simply walking three miles with ankle weights, you can increase the number of calories you burn each day by around 25 percent.

Now if you simply manipulate these figures based on the idea that one pound of body fat has 3,500 calories of stored energy (an idea that originated by researcher Dr. Max Wishnofsky in 1958), losing weight seems quick and easy. Think about it: By utilizing ankle weights and walking six days per week, you stand to burn an additional 3,600 calories a week—or one pound of body fat. This one simple habit would allow you to shed a pound a week, for a total of 52 pounds a year.

Unfortunately, regardless of what is still being published by most dietitians, the Academy of Nutrition and Dietetics, and even the Surgeon General, it doesn’t really work like that. Even worse, most diet plans are still based on this outdated and erroneous idea. The 3,500-calories-per-pound rule seems to work for the short term when you only want to lose a few pounds, but not long term or for losing any significant amount of weight. This is where you need to think long term and tweak your program accordingly.

**Modern-Day Adjustments to this Formula**

The human body is in a constant state of adaptation. It’s well documented that as one loses weight, energy requirements decrease, and this has to be taken into account when trying to lose weight. As you drop pounds (and to maintain a lower weight), caloric intake needs to be pared down since your body naturally reduces its metabolic rate.

Additionally, since the 1950s, we realized that every calorie isn’t the same. The source of the calorie makes a difference in how it is handled by the body.

Simple carbohydrates are handled much differently than proteins and fats. One of the biggest culprits to come on the scene during the last few decades has been high-fructose corn syrup. Many people think they can “reward” themselves with a soda every so often, but these types of foods and beverages can be so detrimental to forward progress.

In one study, researchers found that it takes just 10 extra calories a day to raise the body weight of the average person by 20 pounds over 30 years. They also found that by lowering your caloric intake by just 250 calories a day (the equivalent of a can of sweetened iced tea, one and a half sodas, or just about any 16-oz. beverage from Starbucks, without whipped cream) would lead to a loss of 25 pounds over three years. (Lancet 2011 Aug;378(9793):826–37)

It’s important to remember that to lose weight, you have to cut more calories than it took to actually gain the weight. The same researchers found that people who became obese by consuming an additional 250 calories a day required a reduction of 500 calories a day to return to their prior, non-obese weight. My dad used to tell me, “you pay for your thrills”—a phrase that seems quite appropriate when it comes to losing weight!

It should go without saying, but one of the best things you can do to accelerate weight loss is to cut simple carbohydrates (sugars and high-glycemic foods) out of your diet. When the body is flooded with simple carbs, those that aren’t immediately burned as fuel are converted and stored as fats. To achieve this, additional insulin production and release is required, which eventually sets you up for insulin resistance, metabolic syndrome, and type 2 diabetes—all of which result in increased fat storage.

**A Useful Body Weight Planning Tool**

So based on current research and information, if you follow the 3,500-calories-per-pound rule, like most people have for the last 50-plus years, you’ll likely fail to reach your weight loss goal. However, that doesn’t decrease the effectiveness or benefits of utilizing ankle weights. It just requires a slightly different game plan and more realistic expectations.

Simply using the 3,500-calories-per-pound rule without accounting for the other factors I’ve mentioned predicts that an individual will lose twice the amount of weight than happens in reality. This can be extremely frustrating, to say the least. It also explains why many people lose hope, revert to their old routines, and never achieve their desired weight. However, I’ll explain how you can avoid that outcome.

First, as I mentioned earlier, it requires developing a long-term habit instead of expecting a quick-fix miracle. The right habits will keep you from constantly dieting, counting calories, and worrying about your diet and weight. Cut out the sugar and once you know what foods and eating habits will keep you in the caloric range required...
to maintain your weight, you’ll no longer have to think about it.

Fortunately, there’s a fantastic free tool available that takes many of these additional factors into consideration. Based on your age, sex, height, and what level of exercise you’re willing to engage in, it will calculate not only how many calories you need to consume to reach your desired weight but also how many you should consume to maintain that weight.

What I really like about this tool is that it lets you see graphs of how you should be progressing based on the date you pick to reach your goal.

To access this free tool, visit niddk.nih.gov and type “Body Weight Planner” in the search box. It should be the first result that comes up.

Secrets of Highly Successful People

People who are able to lose significant amounts of weight and keep it off for years have two things in common. One, they have a habit of exercising on a regular basis, and two, they regularly check their weight and make adjustments to their diet and/or workout program when needed.

Research has shown that those who fail actually develop distinctive bad habits. For instance, when they start to exercise more, they also start eating more. This, of course, leads to frustration when weight loss stalls, and many cut back on or completely abandon physical activity.

This is where the body weight planning tool can be especially helpful, by providing realistic expectations and allowing you to get on track with a healthy diet long enough for it to become a habit.

For all the reasons I mentioned earlier, I also recommend the use of ankle weights, which you can find at most athletic stores or Walmart.

Before buying, keep a couple of things in mind. First, choose a brand that is adjustable (where weights can be removed or added). This allows you to start with a lower weight and gradually add more as you get stronger. You might want to start with half a pound or 1 pound on each ankle and gradually work your way up to about 2.5 pounds.

Second, you want to make sure that when you remove most of the weights, the wrap isn’t too small and is still comfortable. The weights should sit on the sides of your ankles, not in the back or front of your leg, where they can rub and irritate your Achilles tendon or make it difficult to bend your ankle while walking.

One brand I like is the All Pro Adjustable Ankle Weights. They have the features I’ve mentioned and the weight is adjustable in quarter-pound increments, up to 2.5 pounds per ankle. They are available on Amazon and with shipping and tax, run about $50. (They also make a set that is adjustable in half-pound increments up to 5 pounds on each ankle. I wouldn’t recommend those to start unless you’re already in great shape.)

And since this is ideally going to be a long-term exercise habit, I also suggest some gel (viscoelastic) shoe inserts. While not necessary, these inserts certainly make walking more comfortable. They take up less space than foam inserts and provide varying levels of density for different areas of your foot. The price can range anywhere from $100 for those made in Germany to $10 for drugstore brands.

I’ve primarily talked about using ankle weights for walking, but they can also be worn throughout the day while doing your regular activities. This allows you to gradually become accustomed to them, and the brand I recommend is generally small enough that pants can cover them.

One final note of caution: You never want to run, jog, or sleep with ankle weights.

Another Benefit to Ankle Weights

Ankle weights don’t just help you lose weight, they also work by strengthening the muscles in your legs and hips. This is especially important as we get older.

Falls are the leading cause of both fatal and nonfatal injuries for people aged 65 and older. One in three Americans over the age of 65 falls each year, and by age 80, over half of seniors fall annually. These are just the documented falls. I’m sure that number is much higher since most falls go unreported.

The available statistics on falls are frightening:

- Falls are the leading cause of death due to injury.
- 87 percent of all fractures in the elderly are due to falls.
- Falls account for 25 percent of all hospital admissions and 40 percent of nursing home admissions.
- 40 percent of those admitted to hospitals for falls never return to independent living.
- 25 percent of those admitted for falls die within a year.
Falls very often result in hip fractures, broken bones, and serious head injuries. Fragility and lack of flexibility, balance, and coordination due to inactivity and muscle weakness are the primary causes. Medications and vision problems also contribute to falls.

One of the key steps to reducing falls is exercise that strengthens muscles in the legs and hips. Inactivity results in the loss of muscle mass at a rate of up to 5 percent for every 10 years, starting at age 30. By the time most people in this country reach 60, they have at least a 15 percent reduction in muscle mass, which significantly increases their risk of falling.

If you don’t think muscle loss makes a difference, take note of how difficult it is for so many older people to simply get up out of a chair. The use of ankle weights can be an effective method to prevent and reverse this.

Not only can they be used with walking and doing normal daily chores and activities, you can even use them to exercise your legs while sitting or watching television. They can also be moved to your wrists and used for arm exercises, and while standing on one foot to improve your balance.

This simple and inexpensive investment translates to not only less fat, increased muscle mass, and decreased risk of falls, but independence well into your senior years. It is definitely a win-win in every regard.

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**Fan the Flames of Inflammation**

It astounds me when I come across medical research that “discovers” that problems in one area of the body can be indicative of similar problems elsewhere. It seemed like years before mainstream medicine was able to make the obvious link between erectile dysfunction and heart disease. Medicine has become so specialized that I guess it never occurred to anyone that poor circulation and clogged blood vessels don’t just occur in one area of the circulatory system and leave other areas in pristine condition.

One of the most recent examples of this involved a study that linked calcium deposits in coronary arteries to an increased risk of cancer, chronic obstructive pulmonary disease (COPD), and chronic kidney disease. (JACC: Cardiovascular Imaging 2015 May;8(5):579–96)

The study involved 6,814 individuals aged 45 to 84. Researchers calculated the participants’ baseline coronary artery calcium (CAC) score, as measured by cardiac CT scans. (The CAC score is a measurement of the amount of calcium in the walls of the arteries that supply the heart muscle.)

The individuals then underwent follow-up visits at least once yearly for about 10 years. At the end of the 10-year study period, 1,238 of the 6,814 participants had been diagnosed with lung, prostate, gastrointestinal/colon, breast, skin, blood, uterine, or ovarian cancers, kidney disease, pneumonia, blood clots, lung disease, dementia, or hip fracture.

Among those individuals with a CAC score of zero (11 percent), disease incidence was very low. But of the 37 percent of the participants who had CAC scores greater than 400, they also had:

- **53 percent higher risk of cancer**;
- **70 percent increased risk of chronic kidney disease**; and
- **271 percent greater risk of COPD**.

There also appeared to be slight associations between CAC scores and dementia and hip fractures, but no association between CAC and blood clots or pneumonia.

The amount of calcium in the arteries is an indication of the degree of hardening in the artery wall, or atherosclerosis. The higher the CAC score (meaning, the more calcium buildup in the arteries supplying the heart), the higher the risk of heart attack and the other serious health concerns.

Keep in mind, this doesn’t necessarily mean you will have a heart attack, only that you are more likely to have one compared to someone who has a lower score. Even a person with a CAC score of zero could have a heart attack or any of these other health problems.

The CAC score is more of a screening tool. It gives you a snapshot of arterial damage at that point in time. It’s different than trying to draw conclusions from single risk factors like smoking or high blood pressure because...
it provides a direct measurement of the cumulative effect of all risk factors.

Since it’s a screening tool, it’s probably most beneficial for women between the ages of 35 and 70 or men between 40 and 60, to help access their risk and provide a warning that they may need to start making some changes to their nutrition and lifestyle.

This is not to say that older men and women might not benefit from knowing their CAC score, but almost all men over 80 already have high CAC scores and doing a scan wouldn’t provide the same degree of useful information.

Of note, much of what we have learned about the connection between heart disease and CAC further negates the long-held beliefs about cholesterol being a main cause of cardiovascular disease.

Mammograms Can Predict CAC, Too

In a related study, researchers found that the calcification of arteries often seen in mammograms are also indicative of coronary artery disease and can be used to predict heart attack risk.

Breast arterial calcification (BAC) accurately predicted CAC far better than standard risk factors such as cholesterol levels, high blood pressure, or diabetes.

The researchers looked at the idea that mammograms, in addition to screening for cancer, can provide a “freebie” in that they also can screen for heart disease.

Women who had calcium in the arteries of their breasts had an 83 percent chance of also having calcium buildup in the arteries of their heart. (JACC: Cardiovasc Imaging 2016 Apr;9(4):350–60)

The Inflammation Factor

The buildup of calcium in arterial walls is primarily the result of inflammation. Calcium is one of the tools our bodies use in an attempt to repair and strengthen the damaged area. Oftentimes, it’s chronic inflammation causing the damage.

In a response to inflammation, our body releases signaling factors that naturally attract calcium into damaged areas as it heals. We routinely see calcium deposition in hips, knees, the spine, ankles, wrists, shoulder tendons, and other areas that have been damaged. Tissue calcification also occurs in the lungs in response to infections, and it happens in chronic pancreatitis due to inflammation and around the heart (pericarditis).

Calcium itself isn’t the problem. Ninety-nine percent of calcium in the body is used to strengthen and repair bones and teeth and serves as an essential component in many chemical pathways, facilitating actions like muscle relaxation, blood clotting, nerve transmission, and mineral transportation across cell membranes. Calcium is essential for life, but when it gets deposited in soft tissues like arteries, it’s largely the result of our body naturally responding to inflammation. Chronic inflammation is the culprit, and for most of us it is triggered by diet and/or lifestyle. Calcium deposition in tissue is only the natural consequence of this inflammation.

In many cases, inflammation is acute and localized. For example, if you fall and damage your knee, the inflammation would be temporary and any subsequent calcium buildup would be limited to the knee joint.

But calcification of the arteries involves systemic inflammation. Systemic inflammation occurs when toxins and inflammatory compounds are constantly being produced or introduced into some part of the body and then circulated throughout. We obviously want to minimize any kind of inflammation, but most importantly chronic systemic inflammation as it is progressive and very often a silent killer.

Chronic, systemic inflammation accelerates calcium deposition and the aging process. We may not always feel or recognize when chronic inflammation is occurring. We may just feel tired, drained, fatigued, sick, achy, irritable, or depressed. But all of these can be symptoms of chronic inflammation.

We do, however, begin to feel the end effects of calcium deposition. Skin gradually loses its elasticity and starts forming bumps and discolorations. Tendons and joints stiffen and we lose our range of motion. Blood pressure rises as our arteries lose their elasticity and become clogged. We start to bruise more easily. Dental problems, muscle cramps/spasms, kidney stones, arthritis, bone spurs, and cataracts are just a few of the other noticeable effects.

Additionally, chronic inflammation can damage the genetic material in cells, and the resulting mutations can lead to the growth of cancer.

It shouldn’t come as any surprise that the study supports the link between inflammation to numerous
cancers, as well as lung and kidney disease—both of which are on the rise in this country. The prevalence of chronic kidney disease will continue to increase in the US, according to the latest reports. Estimates are that over 50 percent of people aged 30–49 will develop chronic kidney disease in their lifetime. And COPD is now the third leading cause of death in this country.

If you pay close attention, the pharmaceutical advertisements you see on television for certain conditions will provide you with a very accurate picture of which diseases are on the rise. Have you noticed the flood of ads for drugs and inhalers to treat COPD? I have no doubt that ads for kidney disease will be coming soon.

Treating with drugs instead of curing the problem is the foundation of the pharmaceutical industry, and they obviously spend their advertising dollars on conditions with the biggest marketing potential. Many drugs work by helping to calm or tone down the symptoms of inflammation. Most of the best-selling drugs just happen to have anti-inflammatory properties. They “dampen the flame” as long as you take them, but they never totally put out the fire. They treat the symptom, not the underlying cause.

Nature’s Best Anti-Inflammatories

Rather than resorting to various drugs to dampen inflammation, and then having to deal with their side effects, look to nature instead. Nature provides us with a wide variety of safe anti-inflammatory compounds in our food. It’s up to us, however, to make the best choices, which isn’t always easy to do. That’s one reason I feel so strongly about taking a daily multivitamin/mineral supplement.

In addition, modified citrus pectin (MCP) is one of the most powerful tools to help lower inflammation in the body. In the October 2011 issue of Alternatives, I detailed how MCP can reduce levels of the protein galectin-3 and the resulting inflammation and fibrosis that ruins the health of so many people. I now take MCP every day based on the overwhelmingly positive research.

Along with those supplements, specific foods and herbs you can add to your diet to combat inflammation include:

- Fermented foods and liquids
- Raw cacao
- Wild-caught, cold-water fish
- Tart cherries
- Berries
- Spinach
- Turmeric and ginger
- Garlic and onions
- Walnuts
- Broccoli
- Pineapple
- Papaya
- Herbs such as celery root, devil’s claw, feverfew, white willow bark, and yucca

Eliminate a Top Source of Inflammation

Ideally, the most important step we need to be taking is to eliminate the causes/sources of chronic systemic inflammation.

Belly (or abdominal) fat is not only one of the leading causes of chronic inflammation in this country, I have no doubt it is a primary reason for the increases we continue to see in the rates of heart disease, diabetes, cancer, liver, kidney and autoimmune diseases, pancreatitis, and lung disease (just to name a few).

Abdominal fat cells differ from other fat cells in that they play a role in creating insulin resistance, which leads to more and more fat storage in the body. Fat cells release various hormones and chemicals that cause systemic inflammation. So basically, all that extra belly fat creates a state of chronic inflammation.

Oral and Intestinal Health Reduces Inflammation

Two of the other major sources of chronic inflammation originate in the mouth and the bowel.

Over half the adults in this country have periodontitis, or gum disease. (In adults over age 65, that increases to 70 percent.) And I suspect that the incidence is even higher since the latest figures come from 2009–2010 estimates. (If you’re a young periodontist wondering where to set up practice, you might consider New Mexico, which has the highest rate of periodontal disease at 53 percent, but avoid Utah, which has the lowest at 38 percent.)

Periodontitis is equivalent to being hooked to a catheter that drips harmful bacteria and toxins directly into your bloodstream 24/7. Obviously, the effects can be far reaching. The gums have a very rich blood supply, and when the gum layer is disrupted even slightly, bacteria enters the bloodstream and can travel anywhere in the body, triggering inflammation.

Research has shown that several species of bacteria
associated with periodontitis, such as *Streptococcus sanguinis*, travel through the bloodstream and set up shop in the heart valves, lungs, and peripheral blood capillaries. This creates a never-ending struggle for the immune system and can lead to atherosclerosis, abnormal blood clotting, infection of the heart valves, heart attacks, stroke, diabetes, and respiratory infections such as pneumonia. (*Clin Microbiol Rev 2000 Oct;13(4):547–58*)

I can’t overstress the importance of seeing your dentist or a periodontist regularly to treat and correct gum/dental issues, if you have them. Regular dental cleanings and checkups are also crucial.

Additionally, a high-quality oral probiotic can go a long way in helping to maintain good oral health. I personally use a chewable oral probiotic every evening after brushing my teeth, just before bedtime. The benefits I’ve experienced have been amazing.

On the other end of the spectrum, it’s essential to support the robust community of beneficial bacteria in your gut as well.

Harmful bacteria and toxins enter the bloodstream from the intestinal tract much like they do in the oral cavity. The problem has been referred to as “leaky gut syndrome.”

Large segments of the population suffer from constipation, diarrhea, Crohn’s disease, and irritable bowel syndrome. All of these problems compromise the integrity of the intestinal wall. This, in turn, results in pathogenic bacteria and toxins entering the bloodstream—another prevalent hotbed of chronic systemic inflammation.

Intestinal probiotics and fermented foods (which are naturally teeming with friendly bacteria) are some of the keys to restoring normal bacterial flora in the gut and allowing it to heal. Be sure to add more sauerkraut and other pickled vegetables, and fermented soy and milk products to your diet.

(To learn more about the numerous benefits of fermented foods and probiotics, visit drwilliams.com. While there, be sure to look up my favorite homemade sauerkraut recipe.)

Also be sure to take a probiotic supplement formulated for the intestinal tract. I’ve been researching and writing about the benefits of probiotics for as long as I can remember. Fortunately, I’ve had the opportunity to put that knowledge to use by formulating my own probiotic supplement. I can honestly say that I don’t know of any other supplement that can top probiotics when it comes to correcting so many different health issues. It’s well worth your effort to add them to your daily regimen, if you don’t already take them.

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Until next month,

Dr. David Williams