

## NEWSBITES

### More Science that Chocolate May Be Good for Your Heart

A new systematic review and analysis of studies suggests that chocolate may benefit heart health. Published in the *European Journal of Preventive Cardiology*, this research combined and analyzed the results of six observational studies conducted in the U.S., Sweden, and Australia. Consuming chocolate at least once a week was associated with a lower risk of coronary artery disease (narrowing or blockage of the arteries around the heart due to a buildup of plaque).

This study does not establish cause and effect or indicate how much chocolate or what kind is related to a potential health benefit, but previous research suggests consuming a small amount of dark chocolate (70 percent cocoa or higher). The authors caution that the sugars and fats in commercial chocolate products can have detrimental health effects (so candy bars, brownies, and chocolate cake don't count!).

*NEWSBITES continued on page 2*

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## Easy Steps to a Healthy New Year

*If you have resolved to make healthier choices this year, these small changes can make a big difference.*

This is the time of year we make big promises to ourselves: "I will lose weight, start exercising, eat healthier..." But creating lasting behavior change is tough. Even if your end goal is big, research shows that baby steps are more likely to lead to sustainable, manageable, long lasting behavior change that gets you the results you want. Here are some simple, science-backed, small ways to make a big impact on your health:

**Fit in Fiber:** One change that will have a major positive impact on your entire dietary pattern is replacing low-fiber foods on your plate with naturally fiber-rich choices. Dietary fiber is naturally found in vegetables, fruits, whole grains, beans, and nuts—plant foods that also provide vitamins, minerals, and healthful phytochemicals. A fiber-rich diet is associated with lower risk of diabetes, heart disease, and colorectal cancer, as well as lower risk of dying from all causes, including heart attack and stroke. It may also help with weight loss (see page 4, *Lose Weight...and Keep it Off*).

The average U.S. adult gets about 15 grams of dietary fiber a day, lower than the recommended 20 grams for women and 30 grams for men. Aim to eat a variety of naturally fiber-rich foods throughout the day.

◆ **Small Change Suggestions:** Put more colorful fruits and vegetables on your plate while cutting back on white bread and refined starch sides; choose whole grains and whole-grain foods over refined; snack on nuts or fruit instead of pretzels or potato chips if



*To reach your health goals this year, take one step at a time. Incremental changes support the lasting behavior changes that can make your goals a reality.*

hunger strikes between meals; and add beans and lentils to soups, salads, and side dishes.

**Skip Sugary Drinks:** If you can't start your day without that sugar-laden large vanilla mocha coffee confection, or you regularly drink soda, sports or energy drinks, or sweetened iced tea, weaning yourself off these sugary drinks will be key to your health and weight loss resolutions. Intake of added sugars in drinks promotes weight

*Easy Steps to a Healthy New Year continued on page 7*

## TAKE CHARGE!

To achieve your health goals in this new year, use these well-established methods for successful behavior change:

- ◆ **SET SPECIFIC, REALISTIC, SHORT-TERM GOALS:** For example, choose one specific food or activity to increase or decrease, by a specific amount, within a certain time period. Then build on that with other similar goals.
- ◆ **TRACK YOUR PROGRESS:** A written diary or mobile app are good options.
- ◆ **ENGAGE FAMILY AND FRIENDS:** Rely on people who can provide support, encouragement, and accountability.
- ◆ **GET REGULAR FEEDBACK:** Health care providers, family members, friends, or an app can all be helpful in reviewing your progress and telling you how you're doing.

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## NEWSBITES

continued from page 1

Several bioac-  
tive compounds  
found in cocoa  
(including flavanols  
and polyphenols)  
are suggested as  
potential contrib-  
utors to possible  
benefits. Some of  
these compounds are also found in various  
other foods, like fruits, nuts, and teas. If you  
love chocolate, a square or two of dark choco-  
late once a week as a substitute for sugared  
candy or other desserts is likely safe and may  
even prove to confer some health benefits.



*Eating chocolate may benefit  
your heart health—but stay  
away from the added sugars  
and fats in candy bars and  
baked chocolate treats.*

### An Apple a Day May Keep Dementia Away

A recently published study conducted by  
Tufts researchers suggested a diet rich in  
fruits and vegetables (especially flavonoid-rich  
choices like apples, pears, berries, and tea)  
was associated with lower risk of developing  
Alzheimer's disease and related dementias. The  
authors reported that monthly flavonoid intake  
equivalent to what one would get from eating  
one and a half apples a month was associated  
with two- to four-fold higher risk of demen-  
tia when compared to consuming flavonoids  
found in, for example, eight apples, seven and  
a half cups of blueberries or strawberries, and 19  
cups of tea per month. Any plant-rich dietary  
pattern that includes a variety of fruits and veg-  
etables is likely to provide a level of flavonoids  
associated with lower risk.

The results of this study do not prove  
cause and effect, and findings are generaliz-  
able only to middle-aged or older adults of  
European descent. That said, the potential  
to reduce the risk for incurable dementias  
is yet one more reason to include fruits and  
vegetables throughout your day.

### Leafy Greens May Confer Health Benefits as We Age

A recent multi-eth-  
nic study conduct-  
ed by Tufts' researchers  
suggests vitamin K-rich  
foods like leafy greens  
and vegetable oils may  
help protect our health  
as we age. Compared  
to levels of vitamin K



*Adequate dietary intake of  
vitamin K, from foods like  
leafy greens and plant oils,  
may be associated with  
lower risk of death.*

seen with adequate dietary intake, low vitamin  
K levels in older adults were associated with a  
19 percent higher risk of death.

There are no data to indicate vitamin K  
supplements are beneficial. The blood levels of  
vitamin K associated with protective effects  
are easily attainable through a healthy diet  
that includes regular intake of leafy greens  
(such as dark green lettuce, kale, and spinach)  
and some plant oils, especially soybean and  
canola. Keep in mind that vitamin K is a fat-  
soluble vitamin, meaning it is only absorbed  
by the body in the presence of fat—so skip the  
fat-free salad dressings.

### Intermittent Fasting Does Not Lead to More Weight Loss

P articipants in a  
new randomized  
clinical trial lost about  
the same amount of  
weight and had simi-  
lar cardiometabolic  
benefits whether they  
practiced intermit-  
tent fasting (time-restricted eating) or ate three  
meals per day. One group of the overweight and  
obese participants were told to eat three meals  
a day (plus snacks if desired). Another group  
could eat whatever they wanted between the  
hours of noon and 8 PM, with no caloric intake  
for the rest of the 24-hour day (eight hours  
to eat, 16 hours of fasting). The study did not  
include calorie restriction for either group.

After 12 weeks, there was no significant dif-  
ference in weight change between groups. And,  
the group randomized to intermittent fasting  
actually experienced a significant loss of lean  
muscle mass: an unexpected and potentially  
harmful result. The authors had hypothesized  
that the fasting schedule would lead to lower  
calorie intakes and, hence, weight loss, but  
the results did not support that hypothesis.  
Some other studies have found intermittent  
fasting to be as effective for weight loss as  
other weight-loss diets; however, these studies  
have been relatively short term. For now, no  
strong evidence supports intermittent fasting  
regimens compared to three healthy meals per  
day as a more effective way to lose weight. (See  
page 6 for more information.)



*Restricting eating to certain  
hours of the day without  
changes to what one eats  
during those hours may not  
lead to weight loss.*

# Simple Ways to Step Up Physical Activity

*It's possible for people of all ages, abilities, shapes, and sizes to increase physical activity—really!*

**J**ust one in five women and one in four men in the U.S. meets the recommended Physical Activity Guidelines for Americans (see *Physical Activity Guidelines* box). That means most of us are missing out on the many health benefits of being physically active (see page 7 for more information).

**Every Bit Counts:** According to Roger Fielding, PhD, senior scientist of the Nutrition, Exercise Physiology, and Sarcopenia Team, even small bouts of activity have health benefits. A study conducted in Sweden found that adding 30 minutes per day of light-intensity physical activity—like household chores, walking, or even standing—was associated with a 24 percent lower risk of cardiovascular disease after 15 years. Higher intensity activity (like a brisk walk for 10 minutes a day) was associated with a 38 percent lower risk of death due to cardiovascular disease. “Almost any activity counts,” says Fielding. “Don’t discount the housework or gardening you’re doing, for example—it may be lighter than jogging, but it’s certainly better than sitting.”

**Set a Goal:** Set small, achievable, time-bound, realistic goals. For example, if you already walk, run, or bike regularly, you may set a goal to add 20 minutes of resistance training twice a week. If you are mostly sedentary, you may aim to accumulate 30 minutes of walking a day by the end of the month. Once you achieve your goal, aim to increase intensity by adding a hill or quickening your pace. Move throughout each day, but be specific as to what times on which days you’ll be particularly active. Include a plan for inclement weather, and for how you’ll make up missed days (and be kind to yourself) when life gets in the way.

Keep track of your progress in a journal or with an app. For additional motivation, enjoyment, and accountability, Fielding suggests looking for a workout buddy. Listening to music, audio books, or podcasts can also make activity more enjoyable. (For more on setting and reaching goals, see page 1.)

**Focus on Health:** Physical activity can improve metabolism, sleep, mood, muscle strength, and immunity, with or without weight loss. Activity can also



*Any amount of any activity is better than not moving. Get creative, find what works for you, make a plan, and increase time and intensity as appropriate.*

## TAKE CHARGE!

Try these tips to make this the year you improve your health with more physical activity:

- ♦ **MAKE A PLAN:** Decide what you want to achieve, and why. Have contingency plans for bad weather and life’s little interruptions.
- ♦ **SET REALISTIC GOALS:** Meet yourself where you are, and set goals that move you (slowly and incrementally) toward your planned achievement.
- ♦ **ADD ON:** Increase activity incrementally over whatever you are doing now. Small periods of activity have health benefits too, so take 10 and get moving.
- ♦ **GET CREATIVE:** Climb the stairs, take a walk (outside, on a treadmill, or around the house) during a meeting or call. Lift household objects.

reduce harmful visceral fat (fat around the intestinal organs) without measurable change in body weight. Weight may even go up due to increases in muscle mass. So, think of exercise as a health tool, not a weight loss tool.

**Get Creative:** “People have always had to think about ways to make physical activity a part of their lives,” says Fielding. “These days they may need to be even more creative and make modifications.” Walking, jogging, biking, and tennis are safe, socially distant activity options. Speed clean the bathroom, ride a stationary bike during a conference call, find free online yoga videos, or do bicep curls with canned beans or jugs of water. Walk laps around the house, climb up and down the stairs, and take advantage of the wide range of apps—free and fee-based—that are available to guide, track, and motivate activity.

However you choose to get moving, the best activities are those you’ll enjoy and do consistently, so look for ways—traditional or outside of the box—to make this the year you step it up! 💙

## PHYSICAL ACTIVITY GUIDELINES

For full health benefits, adults should aim for:

- For substantial health benefits, adults should do at least 150 minutes (2 hours and 30 minutes) a week of moderate-intensity<sup>a</sup>, or 75 minutes (1 hour and 15 minutes) a week of vigorous-intensity<sup>b</sup> aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week.
- Adults should also include muscle-strengthening activities<sup>c</sup> that involve all major muscle groups on 2 or more days a week.

<sup>a</sup> Moderate-intensity physical activity: Aerobic activity that increases a person’s heart rate and breathing to some extent.

<sup>b</sup> Vigorous-intensity physical activity: Aerobic activity that greatly increases a person’s heart rate and breathing.

<sup>c</sup> Muscle-strengthening activity: Physical activity, including exercise that increases skeletal muscle strength, power, endurance, and mass. It includes strength training, resistance training, and muscular strength and endurance exercises.

Source: *Physical Activity Guidelines for Americans, 2nd edition*



# Lose Weight... and Keep it Off

Our board of experts “weighs in” with the latest on what works for weight loss, and for preventing weight (re)gain.




Image © Fotostart | Getty Images

**W**eight is about more than appearance. Being overweight and obese is associated with a lower quality of life (especially as we age) and higher risk for a wide range of diseases (from diabetes and cardiovascular disease to cancer and viral infections). The good news is, losing even five to ten percent of

excess weight can have a dramatic impact on health. But what is the best way to lose weight? And how do we get it to stay off?

Tufts University is home to the Friedman School of Nutrition Science and Policy, one of the world’s leading nutrition graduate programs, as well as the Jean Mayer USDA Human Nutrition

Research Center on Aging (HNRCA), where researchers study the intersection of diet and health every day. Here, the stellar researchers and professors who serve on the advisory board of this newsletter offer their up-to-the-minute expert advice on achieving and maintaining a healthy weight. 

## Cutting Calories/Preventing Regain



*Jeanne Goldberg, PhD, is an Advisory Board member and professor emerita of Nutrition Interventions, Communications, and Behavior Change at the Friedman School. Dr. Goldberg has worked on obesity and chronic disease prevention interventions since 1995.*

“If there were a ‘magic bullet’ for losing weight and keeping it off, we’d all be our ideal weight. At the end of the day, it is the ratio of ‘calories in’ to ‘calories out’ that determines weight loss. There is no shortage of literature guaranteeing success to anyone who follows the (you fill in the blank) Diet. Some of these diets are well-balanced and sensible. Others lack those healthful attributes. Some are downright extreme. But history has shown if the user burns more calories than they consume, they will lose weight.” (See page 6 for a review of popular diet plans.)

“The critical question is what happens after the weight is lost. While not perfect, a project called the National Weight Registry provided some valuable guidance on maintenance of weight loss. Behaviors associated with successful maintenance included regular weighing, careful monitoring of the amount of food consumed, and regular physical activity (quite a bit of it—as much as two-and-a-half hours a day.) In fact, while it is unlikely that exercise itself (without restricting caloric intake) will lead to weight loss, exercise is critical to maintaining weight loss.”

## Quality is More Important than Calories



*Editor-in-chief of Tufts Health & Nutrition Letter, Dariush Mozaffarian, MD, DrPH, is dean of the Friedman School. Dr. Mozaffarian has authored more than 400 scientific publications on dietary priorities for obesity, diabetes, and cardiovascular disease.*

“For long-term success, focus on overall food quality, rather than specific nutrients or counting total calories.

One priority is to eliminate ‘fast carb’ foods rich in refined grains, starches, and sugars: foods like white bread, rice, most crackers, salty snacks, and granola bars, as well as sugary foods like soda, energy drinks, store-sweetened teas/coffees, and candy (which have low nutritional quality). In their place, eat minimally processed, phytonutrient-rich foods like fruits, nuts, seeds, beans, veggies, plant oils, plain yogurt, and fish. Chicken and eggs are fine on occasion, and unprocessed red meat once or twice per week. Higher intakes of healthy fats from plants and plant oils are helpful.”

## Naturally Fiber-Rich Foods Control Hunger



*Nicola McKeown, PhD, is an associate professor at the Friedman School and a scientist in the Nutritional Epidemiology Team at the HNRCA. Dr. McKeown is internationally renowned for her research examining the role of whole grains in promoting health.*

“For most people, trying to control hunger between meals is a challenge! Naturally fiber-rich plant-based

foods such as fruits, vegetables, whole grains, nuts, and beans are high quality choices that can actually help control hunger. Fiber slows food intake, stomach emptying, and intestinal transit time, all of which help keep you feeling full and satisfied—so make sure you eat naturally fiber-rich foods throughout the day.”

## Slow and Steady Wins the Race



*Robin B. Kanarek, PhD, is the John Wade Professor of psychology, emerita, at the Friedman School of Nutrition Science and Policy. Dr. Kanarek's career has focused on the behavioral neuroscience of nutrition.*

“Like the hare in Aesop’s fable who believed speed alone could win a race, many in today’s society believe that there must be a quick way to lose weight and keep it off. This belief has led every year to new diets and other methods of weight loss. Unfortunately, most of these methods do not produce the desired results. In contrast, following the tortoise’s approach of a ‘slow but steady’ pace can lead to successful weight loss which is maintained over time. Be realistic, it probably took years to gain the weight, so don’t expect to lose it rapidly.”

## Behavior Change is Key



*Alice H. Lichtenstein, DSc, executive editor of Tufts Health & Nutrition Letter, is senior scientist and director of the Cardiovascular Nutrition Laboratory at the HNRCA. Dr. Lichtenstein has been involved in the development of many dietary recommendations, including vice-chairing the 2015-2020 Dietary Guidelines for Americans Committee.*

“Successful weight loss and maintenance depend on making behavior changes that develop into new habits. Start by identifying a small number of modifiable behaviors, and then configure your environment to support those changes. For example: if you decide to cut down on certain foods or beverages, don’t have them available in the house. Restock the shelves, fridge, and freezer and rework your shopping list to emphasize the high-quality foods you have decided to include in your healthy dietary pattern. It’s okay to identify a few foods you really enjoy, and—at appropriate times and in appropriate portions—enjoy them guilt-free. Purchase particularly tempting foods in portioned packs (such as small squares of dark chocolate) or divide them out into single servings when they enter the house—and keep them out of sight. Reaching for one should be a conscious, rather than passive, decision. When your initial changes begin to feel natural, move on to your next, small, achievable goal.”

## The Motivating “Why”



*Joel B. Mason, MD, is senior scientist and leader of the Vitamins and Carcinogenesis Team at the HNRCA. He studies how obesity and other factors alter the risk of cancer formation.*

“Understanding the true health impact of excess weight can be motivating. My expertise provides insight into one of the very important adverse health outcomes of being obese—the risk of cancer.

“There is now compelling evidence that obesity (and, to a lesser degree, being overweight) increases the risk of developing over ten types of cancer, and the enhancement of risk is quite substantial for several of these cancers. Obesity increases the risk of developing cancers of the kidney, liver, and uterus as much as two- to four-fold, for example.

“So, although I cannot advise with authority about the best way to lose weight I can, with confidence, underscore the importance of losing weight and keeping it off.”



## TAKE CHARGE!

Here is a list of science-backed tips and tricks for healthy, lasting weight loss from our experts:

- ◆ **HAVE A PLAN:** Decide what dietary and behavior changes make the most sense for you, and set realistic, achievable, time-bound goals to move towards those changes.
- ◆ **DON'T BITE OFF MORE THAN YOU CAN CHEW:** Make small changes in behavior which fit within your lifestyle and can be maintained over time. Make one change at a time. When that one goal is reached, set another.
- ◆ **TAKE IT SLOW:** Gradual weight loss is a key to long-term success. Aim to lose about one-half to one pound a week. Rapid, massive weight loss should not be the goal.
- ◆ **BE MINDFUL:** Notice what you are eating and how much, but also where, when, and why (for example: eating at night; mindlessly munching in front of the TV; eating in response to stress, sadness, or loneliness), and address the factors that influence your eating behaviors.
- ◆ **DON'T DRINK YOUR CALORIES:** Sugary beverages are bad for health and simply add extra calories to your diet, which leads to unwanted weight gain.
- ◆ **COOK AT HOME:** Prepare food at home as much as possible, rather than ordering out. Preparing food at home gives you more control over what (and how much) food you put in your body.
- ◆ **SET YOURSELF UP FOR SUCCESS:** Stock the pantry, fridge, and freezer with healthy choices; use smaller plates and glasses; pre-portion high-calorie items.
- ◆ **GET RID OF GUILT:** Eating is one of life's pleasures. Don't beat yourself up for a bad day— just go back to reaching for your goals. Eat your favorite treats, occasionally, in reasonable amounts. Work to establish a positive relationship with food.

# The Great Diet Debate

*We are constantly bombarded by new “surefire” weight loss plans. How can we tell if they are effective, and healthy?*

**W**hile any plan that cuts calories will result in short-term weight loss, not all calorie-cutting measures are sustainable or good for our overall health. In general, experts favor a variety of high-quality, healthy foods in reasonable portions and argue against “fad diets” that cut out entire health-promoting food groups. Let’s see how a few popular diet types measure up:

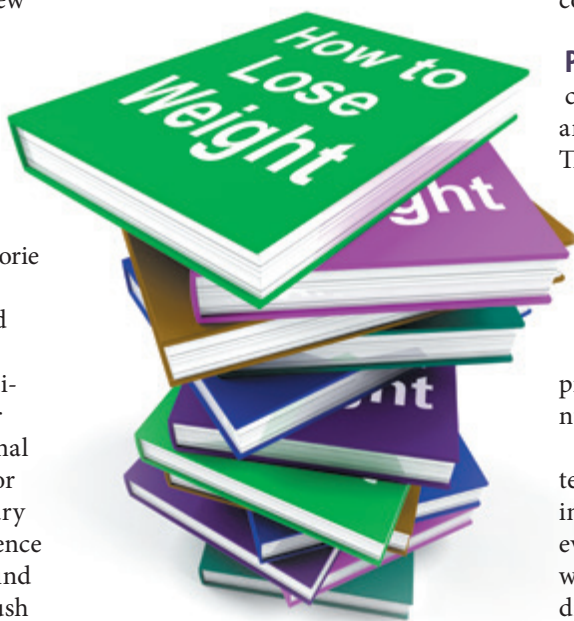
**Intermittent Fasting:** These increasingly popular diets involve either time-restricted eating (all meals are eaten between 8AM and 3PM, for example) or a mix of regular eating days and days of fasting or very low-calorie intake (such as two 500-calorie days a week). Technically, all foods are allowed during unrestricted days or hours.

**Does it Work?** Research so far indicates intermittent fasting is no harder or easier to follow than more traditional calorie-cutting diets—and no more (or less) effective (see page 2 for a summary of the latest study). “The limited evidence we have suggests that people should find what works best for them,” says Dariush Mozaffarian, MD, DrPH, editor-in-chief of *Tufts Health & Nutrition Letter*, “be that intermittent fasting, three regular daily meals, or grazing (multiple small meals throughout the day). What you eat is more important than when.”

**Is it Healthy?** Intermittent fasting is not recommended for people with diabetes or eating disorders and is not appropriate for those who feel unwell when they don’t eat, are pregnant or breastfeeding, or are still growing. Make sure foods you do eat are healthy choices and provide a range of nutrients, including fiber, healthy fats, vitamins, and minerals.

**Ketogenic Diets:** Many tissues in our bodies run on glucose from carbohydrates. When deprived of carbs, the body produces an alternate fuel—ketones—by breaking down fat. Ketogenic diets

require cutting back dramatically on all carbs, including sugars, grains and grain products (refined or whole), beans, fruits, starchy vegetables, and milk. Fats are expected to account for 70 to 80 percent of calories; non-starchy vegetables, some nuts and seeds, and dark chocolate are allowed. Versions of ketogenic eating



*There is no shortage of diet advice out there. Cut through the hype and look for healthy options that work for you in the long term.*

include the very low-carb, high-protein Atkins diet, the South Beach and Dukan diets, and the Paleo diet, which will be discussed in the next section.

**Does It Work?** Short-term research studies show weight loss and improvement in weight-loss-related health parameters such as blood pressure, insulin resistance, and cholesterol and triglyceride levels. The extreme restrictions can make the diet hard to follow (and tedious). “In longer-term studies, people start to increase their carbs and ketogenesis is not maintained, but they still lose weight,” says Mozaffarian. “This suggests that cutting refined carbs and sugars, rather than ketogenesis itself, is most important.”

**Is it Healthy?** A strict ketogenic diet can be high in red and processed meats and low in healthy foods like fruits, beans, and minimally processed whole grains. “While the weight loss is beneficial, overall, a ketogenic diet may be best for initial short-term (a few months) weight loss,” says Mozaffarian. “After that, focusing on keeping out the refined grains, starches, and sugars, and allowing back in other healthier foods like fruits and beans, may be the healthiest option.”

Women who are pregnant or intending to become pregnant should not consume ketogenic diets.

**Paleo:** Diets based on foods theoretically available to our hunter-gatherer ancestors have exploded in popularity. This diet typically excludes all grains (whole or refined), sugars (except a little honey), dairy products, white potatoes, legumes, salt, coffee, alcohol, most plant oils (except olive and coconut oils), and packaged foods. Meats (fresh and processed or preserved), fish, eggs, vegetables, fruits, nuts, seeds, and olive oil are allowed.

**Does it Work?** Some small, short term studies have shown weight loss and improved health parameters. Limited evidence suggests there is no long-term weight loss benefit with a Paleo-style diet compared to a healthy diet based on more typical dietary recommendations.

**Is it Healthy?** Intake of red meat, especially processed meats, at the levels recommended on this diet is associated with higher risk of death, cardiovascular disease, and diabetes. While the idea of eating natural whole foods and avoiding sugars and refined carbs is not a bad one, excluding whole grains and legumes cuts beneficial fiber and some vitamins, avoiding plant oils cuts healthy fats, and avoiding dairy may cause inadequate intakes of calcium and vitamin D.

Keep in mind we don’t really have the same foods available as our paleolithic ancestors—and that their life expectancy was rather short, so we don’t know what the effect of their diet would have been on the chronic diseases of aging we face now. ❤️

Image © shutterstock/Getty Images



gain and is linked to type 2 diabetes, cardiovascular disease, and gout, not to mention cavities.

♦ **Small Change Suggestions:** Make a plan to cut back. Start by replacing one sweet drink a day with an unsweetened beverage. Water, seltzer, unsweetened coffee or tea, and unsweetened milk, soy, or nut drinks are the best choices. When you have adjusted to that change, cut back even further. For a pop of flavor or fizz, try a squeeze of citrus in plain water or combine sparkling water or seltzer with a splash of 100 percent fruit juice. Skip the syrups and whipped cream, and boost coffee and tea with plain milk or unsweetened milk alternatives (nut milks are naturally sweet tasting) or a dash of cinnamon. (Note: “Diet” drinks and sugar substitutes can help cut your intake of added sugars, but they will not help you tamp down your preference for sweets, so think of these as a bridge toward getting off of sugary drinks, not a destination.)

**Get Moving:** Being active is associated with lower risk of chronic disease, as well as stronger bones and muscles, better brain health, boosted mood, improved ability to do daily activities, and higher quality of life. Physical activity by itself does not help much with weight loss—changing your diet is necessary for that—but activity is helpful for maintaining weight loss, and resistance exercise builds muscle mass. No matter your age, shape, size, or physical abilities, everyone can experience health benefits from moving more.

♦ **Small Change Suggestions:** Evidence shows that physical activity can be broken into increments as short as 10 minutes throughout the day and still be beneficial. Even everyday activities, such as standing, walking, or household chores count. (See *Simple Ways to Step Up Physical Activity* on page 3.)

**Swap Carbs:** Americans eat way too many refined carbohydrates: refined grains, starches, and sugars. Eating refined grains (like white flour and products made from it) is associated with many negative health effects. A diet rich in minimally processed whole grains (oats, barley, quinoa, bulgur, buckwheat, wheat berries, and many

more) and products made from them (whole wheat breads, steel-cut oats, and high fiber cereals, for example) is associated with better long-term health. Strive to make at least half the grains you eat whole grains. Use the Nutrition Facts label to identify products with at least one gram of fiber for every ten grams of carbohydrate per serving when buying packaged foods.

♦ **Small Change Suggestions:** Swap in whole grain bread or crackers for white; cook whole grains like quinoa or barley instead of rice sides; and choose plain popcorn or nuts instead of pretzels and chips. Replacing refined carbs with naturally low-carb foods is even better: instead of cereal, enjoy a bowl of yogurt with fruit and nuts; instead of rice or bread, have a side of veggies or beans.

The start of a new year is a good time to take a look at your regular habits and behaviors, and focus on taking steps toward permanent, healthy changes. This

## RESOURCES



**Get Adequate Sleep:** [sleepassociation.org](http://sleepassociation.org)

**Stop Smoking:** [smokefree.gov](http://smokefree.gov)

**Keep up with Health Screenings:** [health.gov/myhealthfinder](http://health.gov/myhealthfinder)

**Get Help with Depression:** [health.gov/myhealthfinder/topics/doctor-visits/screening-tests/talk-your-doctor-about-depression](http://health.gov/myhealthfinder/topics/doctor-visits/screening-tests/talk-your-doctor-about-depression)

**Address Alcohol Use:** [NIAAA.NIH.gov](http://NIAAA.NIH.gov)

**Manage Stress:** [heart.org/en/healthy-living/healthy-lifestyle/stress-management](http://heart.org/en/healthy-living/healthy-lifestyle/stress-management)

issue is dedicated to offering concrete steps for improved eating habits and increased physical activity. If you want to focus on other areas of your health and well-being, check out the *Resources* box above. Whatever behavior you wish to change, the advice in the *Take Charge!* box on page 1 can help. 💡

## FEATURED RECIPE: BLACK-EYED PEA STEW

In some traditions, eating black-eyed peas and greens to celebrate the new year is thought to bring prosperity!

### Ingredients:

2 Tbsp plant oil (such as soybean or canola)  
1 medium onion, sliced  
2 tsp garlic, minced  
8 cups low-sodium chicken broth  
¾ cup barley  
1 cup finely chopped sun-dried tomatoes

1 Tbsp finely chopped fresh oregano, or 1 tsp dried  
Freshly ground black pepper to taste  
Red pepper flakes to taste  
2 Tbsp balsamic vinegar  
1 bunch (about 2 cups) kale, stems removed and roughly chopped

3 cups cooked black-eyed peas (from dry or canned, rinsed and drained—preferably no salt added or low sodium)  
½ tsp salt



### Steps:

1. Heat the oil in a heavy-bottomed stock pot over medium heat. Add the onion and garlic. Cook until the onions are translucent, stirring often, about 5 minutes.
2. Add chicken broth, barley, tomatoes, oregano, pepper, red pepper flakes, and balsamic vinegar. Bring to a boil. Reduce heat and simmer until barley is soft, approximately 30 minutes.
3. Add kale and black-eyed peas and cook an additional 10 minutes. Serve immediately or cover, refrigerate, and reheat before serving.

**Yield:** 6 servings

**Nutrients per serving:** Calories: 463; Total Fat: 7 g; Saturated Fat: 1 g; Total Carbohydrate: 74 g; Total Sugars: 10 g (Added, 0 g); Dietary Fiber: 14 g; Protein: 27 g; Sodium: 315 mg; Potassium: 1511 mg; Calcium: 140 mg; Vitamin D: 0 IU; Iron: 8 mg.

(tsp = teaspoon; Tbsp = tablespoon; g = gram; mg = milligram; IU = International Units)

Recipe adapted from *The Pescetarian Plan* by Janis Jibrin, recipes by Sidra Forman (Ballantine Books, 2014)



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**HAVE A QUESTION  
FOR TUFTS EXPERTS?**

Send your question for possible publication to: Tufts University Health & Nutrition Letter, PO Box 5656, Norwalk, CT 06856-5656. Or send your question to: tuftsnutritionletter@gmail.com

Sorry, because of the volume of questions, we cannot respond to each inquiry individually.

If you have a condition that may need medical attention, or personal questions related to our articles, please consult your physician.

**IN COMING  
ISSUES ...**

- ▶ Eat to Prevent a **HEART ATTACK**
- ▶ Taming **BELLY BLOAT**
- ▶ **TURMERIC**: The "Golden" Supplement
- ▶ Is **BREAKFAST** the Most Important Meal?

**ASK TUFTS EXPERTS**

***Deuterium-depleted water...Is corn a starch or a veggie?***

**Q** Does the amount of deuterium in drinking water matter to one's health?

**A** Judith C. Thalheimer, RD, LDN, managing editor of *Tufts Health & Nutrition Letter*, answers: "Deuterium is a naturally-occurring isotope of hydrogen. Most hydrogen atoms have one proton and no neutrons. When a hydrogen atom does contain a neutron, it is called *deuterium*. Deuterium is also known as *heavy hydrogen*. Since water is made up of hydrogen and oxygen, water containing deuterium is referred to as *heavy water*. The difference in weight caused by the addition of one tiny sub-atomic particle could only be measured by specialized scientific instruments. This miniscule difference could conceivably cause deuterium to behave somewhat differently in the body than typical hydrogen molecules, but there is no scientific proof at this time that such differences would be significant to our health.



*There is no evidence to date that deuterium-depleted water provides health benefits (or prevents health harms) in humans.*

"Of course, that's not what marketers of expensive deuterium depleted water (DDW) say. All kinds of unproven claims appear in advertising for DDW, including that it will 'optimize your cellular energy' or fight cancer. To date, there have been a few somewhat intriguing studies in mice, rats, and labs, but no high-quality, well-controlled human studies. Rodents are not humans, and cells behave differently in the body than isolated in a dish in a lab. At this time, there is no evidence that deuterium in the body is harmful or that lowering deuterium levels will make a clinically relevant impact on our health. We don't even know for sure that drinking DDW will reliably lower deuterium levels in the body. Until we have reproducible, solid evidence from good human studies, I'd save my money and stick to tap water."

**Q** Some dietary advice treats corn as a starch, but some says it's a vegetable. Which is correct?

**A** Helen Rasmussen, PhD, RD, FADA, LDN, a research dietitian at the HNRCA, answers: "There is a lot of confusion about where corn

should fit in your dietary pattern, and for good reason. In the *Dietary Guidelines for Americans*, corn is classified as both a vegetable and a grain. Botanically, it's actually a fruit! All grains (and many other foods we call vegetables) are the "fruiting" part of a plant—the part that's derived from the flower or ovary.

"The real question, I think, when we discuss the identity of this versatile food, is a question of healthfulness. We tend to think of 'vegetables' as healthy foods, and 'starches' as less desirable carbohydrate-rich choices that will spike blood glucose levels or cause weight gain. So-called starchy vegetables (like corn, peas, potatoes, and winter squash such as butternut and acorn) have been demonized by the low-carb diet movement, but they are packed with health-promoting fiber, vitamins, minerals, and phytochemicals.

"Corn, like other whole grains, is rich in fiber. Fiber slows digestion, improves bowel regularity, helps keep you feeling satisfied, decreases the risk of blood sugar spikes, and helps to feed the good bacteria in your gut. Whole grain corn provides a good source (greater than or equal to 10 percent of the recommended Daily Value) of fiber, magnesium, phosphorus, manganese, selenium and thiamine. Yellow corn also contains more than 10 times the amount of vitamin A of other grains, along with antioxidants and carotenoids such as lutein and zeaxanthin, which are associated with eye health.

"Whole corn (on the cob, or frozen or canned 'niblets'), popcorn (minus the butter and salt), whole grain corn flour, and some forms of masa are the good choices that can fit well into a healthy dietary pattern. Processed corn products (like corn chips and corn syrup), on the other hand, are not good choices.

"For those concerned about genetically modified (GM) foods, it's interesting to note that, while the vast majority of corn crops in the U.S. are GM, the one percent grown for human consumption (sweet corn), is almost never grown from GM seeds." 🍷



*Corn can be part of a healthy dietary pattern—no matter what food category it is in.*

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