



TrainSmarter

Want to Be Thinner? Set Dinner Time by Your Body Clock

Don't eat after 8 pm or you'll gain weight. It's become the common wisdom as more and more studies link eating the bulk of your calories in the evening with weight gain. But **there is more to the story than the hour displayed on the clock. What really matters is the clock inside your body.** Eating most of your daily calories close to bedtime is associated with being overweight. A leading hypothesis: When our bodies are winding down toward the end of the day—and our metabolism slows down with it—we burn fewer of calories we take in compared with what happens when we consume them earlier in the day. As a result, we store more body fat. **The key driver of this metabolism slowdown is the hormone melatonin. It plays a central role in the body's daily rhythms. Melatonin tends to rise in the evening and stay elevated for about 12 hours. On average, those peak melatonin hours are from 9 pm to 9 am. But different people's body clocks can be very different—some tend to go to bed earlier and get up earlier, and some tend to go to bed later and get up later. Researchers wondered how these individual body clocks might influence the late-night-eating/body fat effect.**

Researchers had 110 young adults record their sleep/wake times daily for a month. Then, for a week, the participants recorded everything they ate or drank (excluding water)—including how much and especially, when they did so. To figure out each person's body clock, each participant's saliva melatonin levels were tested throughout one night. Then the researchers analyzed how much each person ate in the four hours before his/her melatonin levels went up—and how that related to body weight and fatness.

Results: The time of day of eating was not, overall, associated with weight. Instead, eating close to each person's individual melatonin-induced wind-down was significantly associated with weight gain and body fat. And the key fact to remember is that weight gain was most closely associated with consuming more than half of one's daily calories in the four hours before melatonin rises.

Surprising finding: The number of calories that each person consumed wasn't associated with body fat.

Bottom line: Eating before you go to bed, when your melatonin levels are high, is strongly linked to higher body fat. But when that time is for you depends on your body clock—not the time displayed on your watch or smartphone. So go by your time. Melatonin levels tend to rise before you get sleepy and go to bed, so it's not easy to know exactly when it occurs. But you do know when you tend to go to bed and go to sleep—bedtime. One rule of thumb endorsed by sleep experts is to eat very little within three hours of your bedtime. If your bedtime tends to be midnight, then, any eating after 9 pm should be very light. If you generally hit the sack by 10 pm, you should eat only lightly (if at all) after 7 pm. In other words, eat dinner by no later than 6 or 6:30.

Don't Fear Fruits' Sugars

There's no need to shun the sugars in whole fruits. In a study of 4,908 Australians, **those with dietary patterns characterized by higher intakes of fruit were 12% less likely to be obese than those with lower fruit intakes. But, people who had a diet higher in sugary soft drinks and chocolate were about 9% more likely to be obese. "Natural sugars, such as in fruits, and added sugars, such as in sugar-sweetened drinks, are chemically similar, but research suggests they have opposite effects on our health,"** says Katherine Livingstone, PhD, lead author of the study from the Institute for Physical Activity and Nutrition at Deakin University in Australia. **"This is because the combination of other nutrients that make up the food (and your overall diet) is very important. Fruits should be encouraged as they are an important source of many beneficial nutrients, such as potassium and fiber. In contrast, sugar-sweetened drinks are high in calories and low in nutritional value."** In looking at people's diets as a whole, **those who ate more fruit were less likely to eat white (refined) bread, processed meats and high-calorie drinks and snacks.**

Five Secrets for Steadier Workouts

Many of us vow to get to the gym—then life intervenes. But 21% of U.S. adults do manage to get enough exercise, and these people have some common traits and habits. They are consistent but not rigid. They have open minds about what defines “exercise.” And they have different motivations than the weary conscripts who enroll at the gym on New Year’s Day.

Here are some habits of those who exercise frequently that just might help the rest of us:

They work out at the same time most days.

A study published in April in the *British Journal of Health Psychology* examined 181 people who exercised an average of 300 minutes a week—twice the federally recommended minimum. Most of those people picked a regular time to work out and stuck with it. **“When things become predictable you don’t need to invest in much thought,”** says the study’s lead author, Navin Kaushal, a postdoctoral fellow in preventive medicine at the Montreal Heart Institute, University of Montreal. **Being in a certain environment at a certain time of day “brings up a mental script of the behaviors and you go into autopilot.”**

They have a streamlined pre-exercise routine with visual cues.

In another study published in 2017 and led by Dr. Kaushal, new gym members were asked to **create cues to prompt them to exercise. A cue might be running clothes, shoes and headphones laid out on a dresser.** The plan is that when a runner wakes up, he sees the cues, dresses and dashes out the door. **After eight weeks, members of the study’s experimental group were 1.7 times more likely to meet physical-activity guidelines than those in a control group.**

They’re more flexible than infrequent exercisers about how long or vigorously they exercise.

Active people are less likely to have all-or-nothing definitions of physical activity, according to a study soon to be published in *BMC Public Health*. The study looked at 40 women, 11 of whom said they exercised at least three times or two hours a week.

“The old-school belief was, you set a goal, it’s a bull’s-eye. You hit it or you miss it,” says the study’s lead author, Michelle Segar, director of the University of Michigan’s Sport, Health, and Activity Research and Policy Center. **“But life is messy. When you’re more flexible, you’re able to shift your position, your stance, do something less. It removes the psychological punishment of ‘Oh, I failed.’”** If a frequent exerciser’s workday spills into her hourlong spin class, for instance, she might still hit the gym to pedal 20 minutes on her own.

An increasing number of active people are widening their definition of exercise.

Many people think exercise has to last at least 30 minutes and make you sweaty and exhausted. Dr. Segar’s ongoing research suggests that **frequent exercisers increasingly view things like walking meetings and family bike rides as things that “count” as exercise.** Steve Rabinowitz, a 41-year-old government analyst in Greenbelt, Md., has been working out about five days a week since he turned 40. “I push myself when I feel like I can, but when I can’t, that’s OK too,” he says. “I really try to listen to my body.”

During a recent work training he attended, Mr. Rabinowitz climbed five floors of stairs to a meeting room eight times over two days—sometimes sprinting, sometimes walking. He says he enjoys exercise more since he’s expanded his options.

They’re more likely to exercise for pleasure than for weight loss or other long-term health goals.

A study published in 2016 in the *Journal of Consumer Research* recruited 61 gymgoers at a University of Chicago weight room. Researchers randomly sorted them into two groups and gave each group six exercise options, such as biceps curls or dead lifts.

People in one group were told to choose the exercise they most enjoyed, while the people in the other group were told to choose the exercise most useful for their health goals. Both groups were instructed to do as many sets of their selected exercise as they could. **People who chose an exercise for enjoyment completed an average of 29 reps, compared with 19 reps for those who chose the exercise they thought would help them with health goals.** That was true even though the two groups chose similar exercises with similar amounts of weight. “If I really care about having a healthy heart, that’s what gets me to the gym,” says Kaitlin Woolley, the study’s lead author and a Ph.D. candidate at the Booth School of Business at the University of Chicago. “But that’s not what keeps me there.” *Rachel Bachman Wall Street Journal*



What Your Doctor Never Told You About Arthritis

This is a little long but such an interesting read. I promise you'll learn something from it!

Physician: “Welcome. Thanks for coming in for your appointment this morning. It says here that you are having shoulder pain. Is that correct?”

You: “Yes it is. I didn’t think anyone actually read that intake form. I am glad that I took the 30 minutes to fill it out in the waiting room. Also, thank you for taking me back only 45 minutes later than my scheduled appointment time. That’s way better than my previous appointments.” [In a sarcastic tone.]

Physician: “Well there could be a host of reasons that you are having shoulder pain. Did you fall recently? And how old are you? Did you know that most 40 year olds have arthritis?”

You: Inner dialogue, “No, I didn’t fall. Fall? What am I 90 years old?” “I exercise regularly Doc. It hurts sometimes when I am bench pressing or doing shoulder press. Can’t think of any specific incident when it first started hurting.”

Physician: “Did you ever consider not lifting weights? It may be rewarding to have those big muscles, but it could increase your risk of injury. Look at me. I do 20 minutes of stationary biking each day, no pain... try that.”

You: [Scratching your head] Again, inner dialogue, “He is kidding, right? I would rather beat my head into a wall than stationary bike for 20 minutes.”

Physician: “Ok, lets do some testing on you. (Three minutes later) Well, luckily I didn’t find anything that resembled a rotator cuff tear or instability. You also don’t seem to be missing much motion so we can throw a frozen shoulder diagnosis out the window. Why don’t we have an X-ray done?”

You: “Ok Doc. You are the boss... this should tell me what the problem is, right?”

Physician: “For the most part, yes. We can see if you have any bone spurs or arthritis. Remember what I said about old people right? They get arthritis.”

You: “Old? I am 40 bro!”

THE FINDINGS:

Physician: “It seems here that you have some arthritis in your shoulder. This explains your pain. You could try taking some anti-inflammatories. Exercise might help too. Here is a list of rotator strengthening exercises that we use. Have at it! If this doesn’t work come back in a few weeks and I can inject it with cortisone.”

You: You think to yourself, “Shoulder exercises? I work out my shoulders all the time. Is the Doc saying I am weak? Am I going to be popping anti-inflammatories my whole life?” As doom sets in you start to think about all the moments you have taken for granted. The joy you get from bench pressing and the euphoria that bicep curls provide. The ease in which you were once able to perform the perfect landmine press, never having to worry about your shoulder. You start questioning past decisions. If I only would have strengthened my rotator cuff muscles earlier or just rode the stationary bike like the DOC. As you are drowning in self-pity the pause button is pressed, and some random guy pops out to provide what might seem like a cheesy infomercial.

Random Guy: “Hello! **I am aware that your physician just made arthritis seem like the death sentence. Before you leave today demoralized, let me give you some facts about arthritis to ensure that you don’t sentence yourself to a lifetime of stationary biking.** He tried that line on me once too.”

What is Arthritis and What Does This Mean For Me?

Osteoarthritis is the most commonly diagnosed form of arthritis. Referred to as the “wear and tear” arthritis. This label holds some truth, but it does not tell the whole story. Living a life enriched by the joys of picking big things up and putting them down may lead to more arthritis than stationary biking. Surprisingly this is not always the case. In another article, we talk about a study that showed a **significantly higher rate of arthritis in a sedentary obese population compared to a lifetime recreational runner.** Osteoarthritis is actually the result of increased inflammation surrounding the joint.

Remember that **inflammation is your body’s attempt at healing tissue.**

Unfortunately, your joints and cartilage do not always allow for optimal blood flow. **Instead of providing healing it just leads to some degeneration. What you need to understand is that many other factors can contribute to arthritis.**





What Your Doctor Never Told You About Arthritis (cont'd)

This includes:

- 1 natural aging
- 2 obesity
- 3 diet
- 4 gender
- 5 previous injury
- 6 your god given anatomy

Arthritis. “The Get Out of Jail Free Card.”

Arthritis seems to be that “get out of jail free card” for most clinicians. You show up complaining of pain without any recent trauma. You don’t recall dropping a barbell on your chest or hearing a pop after throwing a no-hitter... for your co-ed softball league. It seems like your rotator cuff and labrum are safe and sound. So what usually happens next? Your medical doc whips out the “big guns” of course. In this case that would be an X-ray, MRI or ultrasound. Come to find out you have a little bit of arthritis at the shoulder. **Lets stop for one second. For some reason we imagine this life where we defeat the natural aging process. We strive to avoid wrinkles like we strive to avoid arthritis. Wrinkles may be a source of pain just as much as arthritis is. More importantly, having arthritis does not necessarily mean you are going to have pain. It wasn’t until some brilliant people started putting people without pain under X-ray that we realized something extraordinary. They have arthritis too, but no pain!** One study found that arthritis and degeneration of the spine progressively increased with age. However, that is generally NOT true with pain. **People also complain of back pain more frequently in their 40’s to early 50’s (Louw, 2017). From there it steadily declines despite the fact that arthritis steadily increases. More than 90% of 60 year olds (without complaints of pain) will present with some form of degeneration around the spine (Brinjikji W. et al).**

As much as we hate to hear it, we need to **remember that inflammation does not create pain. It just warns the brain that we may have a problem. The brain determines whether or not you feel pain.** People who have had limb amputations because of rheumatoid arthritis (another form of arthritis triggered by an autoimmune disease) continued to feel stiffness in a limb that was no longer there (Haigh et al). Basically, phantom limb pain. This reinforces the idea that **part of your discomfort is also because of a sensitized central nervous system. Your brain and nerves get all hyped up the longer your pain lasts. This is why pain management and physical therapy are focusing on finding ways to desensitize your central nervous system. This includes things like graded motor imagery and helping people understand how pain really works.**

With what you know now, how terrible would it be if arthritis were blamed for your pain without considering other causes? **We may go through the rest of life thinking that nothing that can be done. On top of that we think, “if I have arthritis now how bad will in be in ten years from now?”** You may even consider canceling your gym membership and living in a bubble. Before it gets to this point **try to enhance your self-awareness. Consider what activities may be contributing to your pain. Poor programming, bad technique and lack of focus on mobility.** These are all low hanging fruit.

Other considerations for reducing inflammation:

- 1 Diet
- 2 Sleep
- 3 Exercise
- 4 Physical and Emotional Stress

Failing at any of the categories listed above can elevate local joint inflammation. Potentially leading to pain. **People neglect the importance of a diet that minimizes inflammation. We have a general idea of the foods that cause more trouble (breads, pastas, dairy, sugar, red meats, and so on). Losing weight, minimizing alcohol intake, not smoking, exercising and cleaning up your diet is usually sufficient for getting on the right path. Many recommendations for herbal supplements and vitamins exist. But don’t think that taking some turmeric and fish oil will override the bowl of ice cream you take down every night. Or the occasional soda with lunch.** We also know that being deficient in certain vitamins can result in increased levels of inflammation. In a study that looked at the relationship between knee pain and arthritis, **“people with knee osteoarthritis who were obese but had healthy vitamin D levels were less disabled than people who were obese individuals but had insufficient vitamin D levels.”**

What Your Doctor Never Told You About Arthritis (cont'd)

Make sure you consult with your doctor before implementing any vitamin supplementation. More is not always better.

Consuming too much of one vitamin could cause toxicity or alter the effectiveness of other vitamins (Glover et al).

If You Are Already Making All the Right Lifestyle Choices and Still Having Pain What Can We Do?

Muscle can often be the source of a lot of the aches and pains we experience. Inflammation at a joint or trigger points in a muscle both increase those danger signals back to the brain. Our goal is to decrease those danger signals in as many ways as possible. That could be treating the muscle, reducing stress, getting more sleep, improving our diet and so on. To start moving in the right direction we can benefit heavily from seeing a professional. Who exactly? It really depends on your preference. **A lot of overlap exists between massage, physical therapy, chiropractic, acupuncture and so on these days. Many of these disciplines are using similar services when it comes to hands on treatment.** For example, cupping, joint mobilization, manipulation, soft tissue manipulation, instrumented assisted treatment, active release techniques and more. Other disciplines besides physical therapy are also using exercise. **Doing your research, and finding out which provider specializes in your injury is more important than ever.**

Been There, Done That and Still No Success?

This is when I would look to a medical doctor, preferably someone that specializes in orthopedics or sports medicine. Knowing that you have been through conservative care already they will most likely recommend an X-ray, ultrasound and/or MRI. **Caution: Ignorance is sometimes bliss. This is when you are going to see what your joint really looks like. It is not always pretty, and “degeneration,” “tears,” “bone spurs” are not always synonymous with pain. Do not let these findings immediately make you think that surgery is necessary.**

- 2/3 people over the age of 70 have pain-free rotator cuff tears (Milgrom, Schaffler et al., 1995)

- 50% of people with knee arthritis have no reported pain (Bedson and Croft, 2008)

- 35% of collegiate basketball players without reported knee pain have notable abnormalities on MRI (Major and Helms)

The doc offered a cortisone injection... should I do it?

Cortisone tends to be used more commonly with knee and shoulder pathology. It has been shown to be effective at reducing pain. The goal is to reduce inflammation local to the joint. “Yea, but isn’t inflammation a good thing?” Great question. Yes, it can be, but excessive inflammation can cause increased stress on a tissue, enhancing those danger signals. Ultimately resulting in more pain. Could cortisone cause more damage? It is possible that excessive use of cortisone can weaken tissues leading to possible tissue injury. What is “excessive use” defined as? That part varies depending on who you ask. **Learn a little more about cortisone injections from the Cleveland Clinic.**

Should I take Aspirin (anti-inflammatories)?

Anti-inflammatories may be effective as reducing local inflammation. Some studies have shown that cortisone may be more effective, but not in all cases. **Anti-inflammatories like aspirin are not meant for long-term use secondary to its harmful effects on the gastrointestinal system. “Possible risks of all NSAIDs include: stomach problems (such as bleeding, ulcer, and stomach upset), kidney problems, high blood pressure or heart problems, fluid retention (causing swelling, such as around the lower legs, feet, ankles, and hands), rashes, or other allergic reactions.”** (Rheumatology.org).

As always, consult with your physician. The doctor gave me a home exercise plan for my shoulder. Will this work?

It depends. As we mentioned earlier, **exercise that does not increase pain can be beneficial.**

To keep it simple, “motion is lotion.”

Movement also increases local blood flow, which can help reduce inflammation. Cardiovascular exercise can reduce pain through endorphin release (self made pain killers). Keep in mind that working through pain on your generic rotator cuff strengthening program will get you nowhere. Not to say that working through a little pain is a bad thing. The assumption that a weak rotator cuff is the culprit is often misguided. Arthritis is not a death sentence. It also does not mean that you need to resort to stationary biking and aquatic therapy. Arthritis is as normal as developing wrinkles when it comes to aging. Before you blame your pain on arthritis consider the low hanging fruit that you are not addressing. If you need a little boost get a second pair of eyes on you at the gym. Also consider seeing a medical provider that can do some soft tissue and joint mobilization. Dr Michael Infantino RehabRenegade.com

Vigorous Exercise May Help Slow Parkinson's Disease

People with early stage Parkinson's may be able to delay a worsening of the disease through a regimen of intense exercise. "If you have Parkinson's disease and you want to delay the progression of your symptoms, you should exercise three times a week with your heart rate between 80 to 85 percent maximum. It is that simple," said study co-lead author Daniel Corcos. He's professor of physical therapy and human movement sciences at Northwestern University's Feinberg School of Medicine in Chicago. However, a more "moderate" exercise level -- under the heart rate threshold outlined in the study -- was not effective in slowing the disease. As Corcos' team explained, medications for Parkinson's cause harmful side effects and their effectiveness declines over time, so new treatments are needed. "The earlier in the disease you intervene [with intensive exercise], the more likely it is you can prevent the progression of the disease," Corcos said. The exact magnitude of the effect remains unknown, however. "We delayed worsening of symptoms for six months; whether we can prevent progression any longer than six months will require further study," Corcos said. But the findings do challenge the long-held belief that intense exercise is too physically stressful for people with Parkinson's disease, he added. The new study included 128 patients, ages 40 to 80, who had early stage Parkinson's and were not yet taking medications for the disease. Some of the patients did high-intensity workouts three times a week for six months, others did moderate-intensity workouts, and a control group did no exercise. The results showed that intense exercise was safe and delayed worsening of Parkinson's symptoms such as loss of muscle control, trembling, stiffness, slowness and impaired balance. "Several lines of evidence point to a beneficial effect of exercise in Parkinson's disease," Dr. Codrin Lungu, program director of the U.S. National Institute of Neurological Disorders and Stroke, said. "Nevertheless, it's not clear which kind of exercise is most effective. [This] trial tries to rigorously address this issue. The results are interesting and warrant further exploration of the optimal exercise regimes for Parkinson's," Lungu said. Two other experts agreed that physical activity could be what the doctor ordered for Parkinson's patients. "As a neurologist who cares for many patients with Parkinson's, this study offers the potential for additional non-pharmacological strategies in aiding our patients," said Dr. Yasir El-Sherif of Staten Island University Hospital in New York City. He said he "looks forward" to further studies that might tell doctors just how long the benefits last. Dr. Souhel Najjar directs neurology at Northwell Health in New Hyde Park, N.Y. He agreed that longer-term studies are needed, but the new findings help confirm that when dealing with Parkinson's, intense exercise "can be very effective in halting its short-term progression." Parkinson's affects about 1 million people in the United States. Incidence increases with age, and men are 1.5 times more likely than women to have the disorder, according to the Parkinson's Foundation.



For more information on Rock Steady Boxing for Parkinson's Disease, contact Martin Juarez 370.8992. Rock Steady...rocks. Check it out!



U.S. News Reveals Best Diets Rankings for 2018

U.S. News & World Report, the global authority in rankings and consumer advice, released its annual assessment of the year's Best Diets. In addition to rankings, the Best Diets platform offers extensive data and information on 40 diet plans across nine categories to help the estimated 45 million Americans who diet each year – and millions more globally – achieve healthier lifestyles. For the first time, **the Mediterranean Diet ranks as a Best Diet Overall, tying for the No. 1 spot with the DASH Diet. Research suggests the Mediterranean Diet, a well-balanced eating plan, boosts longevity and helps prevent a number of chronic diseases. The Flexitarian Diet takes the No. 3 overall spot, followed by Weight Watchers at No. 4 and a three-way tie for No. 5: MIND Diet, TLC Diet and Volumetrics. Weight Watchers continues to hold onto the No. 1 spot for Best Weight-Loss Diets, Fast Weight-Loss Diets and Best Commercial Diets. Jenny Craig moves up a spot from 2017 to be the No. 2 Best Commercial Diet, followed by a tie for third between the Nutritarian Diet and Flat Belly Diet. This year, U.S. News ranked two new diets: the Keto Diet and Nutritarian Diet. The popular Keto Diet – a low-carb, high-fat regimen – ties for last on the Best Diet Overall list. The Nutritarian Diet, created by Dr. Joel Fuhrman, president of the Nutritional Research Foundation, and designed to promote health and longevity, ties for No. 15 for Best Diet Overall. "Whether you're trying to lose weight or manage a chronic disease like diabetes, the 2018 Best Diets rankings are designed to help consumers identify the right diet for their specific needs," said Angela Haupt, Assistant Managing Editor of Health at U.S. News. "By profiling and providing in-depth data on 40 diets, consumers can rely on U.S. News for the tools they need to feel empowered to make well-informed, personalized choices in order to maintain overall healthier lifestyles. "To calculate the rankings, U.S. News convened an expert panel of the country's top nutritionists, dietary consultants and physicians specializing in diabetes, heart health and weight loss. Through an in-depth survey, each panelist scored the 40 diets in nine categories, including ease of compliance, likelihood of losing significant weight in the short and long term, and effectiveness against cardiovascular disease and diabetes." There is an established theme of what is considered healthy eating, but no single diet is the best for all of us," said expert panelist Dr. David Katz, director of the Yale University Prevention Research Center. "The U.S. News Best Diets rankings reliably address the expertise from diverse nutrition professionals in evaluating diets. Ultimately, a 'best' diet is one that can be adopted, managed and sustained over time."**

2018 U.S. News Best Diets rankings

Best Diets Overall

1. DASH Diet (tie)
1. Mediterranean Diet (tie)
3. Flexitarian Diet

Best Commercial Diets

1. Weight Watchers
2. Jenny Craig
3. Flat Belly Diet (tie)
3. Nutritarian Diet (tie)

Best Weight-Loss Diets

1. Weight Watchers
2. Volumetrics
3. Jenny Craig (tie)
3. Vegan Diet (tie)

Best Fast Weight-Loss Diets

1. HMR Diet (tie)
1. Weight Watchers (tie)
3. Biggest Loser Diet (tie)
3. Medifast (tie)
3. SlimFast (tie)
3. Volumetrics (tie)

Best Diets For Healthy Eating

1. DASH Diet (tie)
1. Mediterranean diet (tie)
3. Flexitarian Diet (tie)
3. TLC Diet (tie)

Easiest Diets to Follow

1. Mediterranean Diet
2. Flexitarian Diet (tie)
2. Weight Watchers (tie)

Best Diets for Diabetes

1. Mediterranean
2. DASH Diet
3. Flexitarian Diet (tie)
3. Mayo Clinic Diet (tie)
3. Vegan Diet (tie)
3. Volumetrics (tie)
3. Weight Watchers (tie)

Best Heart-Healthy Diets

1. DASH diet
2. Mediterranean Diet (tie)
2. Ornish Diet (tie)

Best Plant-Based Diets

1. Mediterranean Diet
2. Flexitarian Diet
3. Ornish Diet



Forget Egg Whites—Eat the Whole Damn Egg

Forty years ago, Rocky Balboa inspired a generation of athletes to chug (and try to keep down) three raw eggs as a way to get pure, fast-acting, muscle-building protein. But that was the '70s, before everybody got fat-phobic and started throwing away the yolk—where all the fat resides—and just eating egg whites for muscle building and repair.

Well, guess what? Aside from the fact that he should have cooked them first (see: salmonella), the Italian Stallion was right on the money. **Protein from whole eggs is vastly superior for muscle building than isolated egg whites**, according to a new study. In a head-to-head comparison published in the American Journal of Clinical Nutrition, researchers from the University of Illinois had a small group of men perform a single bout of resistance training, which they chased with either three whole eggs or a mixture of egg whites containing 18 grams of protein. The researchers then monitored how the eggs' amino acids entered the bloodstream and synthesized into muscle. Interestingly, blood samples from each group found that **60-70% of the amino acids were circulating and available for use regardless of which eggs the participants ate. But when the researchers looked at how muscles actually used these amino acids, they found a striking difference: The muscle-building process from whole eggs was 40% greater than that from egg whites alone.** Further research is needed to determine the exact factors at work, but researchers believe something in the egg yolk boosts the body's ability to use protein for building muscle tissue. "This study suggests that **eating protein within its most natural food matrix tends to be more beneficial to our muscles as opposed to getting one's protein from isolated sources,**" lead researcher Nicholas Burd, a University of Illinois professor of kinesiology and community health, said. Beyond muscle-building, whole eggs are good for your overall health. **Egg yolks contain vitamin B12, which aids muscle contraction, inflammation-fighting omega-3 fatty acids, and lutein and zeaxanthin, which protect the health of your eyes.** *Runner's World*

Alkaline Water—Find or Fraud?

"Ideally, I recommend water that's at least [a pH of] 9.5," writes Robert O. Young in his book *The pH Miracle*.

In June 2017, Young—who charged people thousands of dollars to attend his "pH Miracle" retreats—was sentenced to nearly four years in prison for practicing medicine without a license. He also admitted to having no college education. (His "Ph.D." apparently came from a diploma mill.) On the (0 to 14) pH scale, pure water is 7—that is, it's neither acidic nor alkaline. Some companies sell water that is naturally alkaline (with a pH of 8 or 9) because it's higher in potassium, magnesium, or calcium. You can also buy (expensive) machines that "electrolyze-reduce" water to make it alkaline. Or you can pick up an electrolyzed-reduced water—Essentia is a popular brand—at the supermarket. Proponents claim that alkaline water kills cancer cells, banishes belly fat, lubricates joints, and more. **Two of the most common and best-studied claims: it reduces acid reflux and improves hydration. But the evidence is skimpy:**

Reflux. The claim largely rests on one test-tube study in which alkaline water with a pH of 8.8 inactivated pepsin, a stomach enzyme that the study authors claim is responsible for the tissue damage caused by reflux.¹ "You can get a petri dish to a pH of 8.8, but that's going to be pretty hard to do in the stomach, which is so acidic that it has a pH of 1.5 to 3.5," says gastroenterologist Scott Gabbard, of the Cleveland Clinic. "It would probably take many liters of alkaline water to do so." What's more, says Gabbard, **"pepsin helps digest proteins. Inactivating it would be a bad thing."**

Hydration. "We make supercharged ionized alkaline water that's better at rehydration," claims Essentia's website.

Its evidence: after company-funded researchers had 100 adults exercise until they were dehydrated, only one of several measures of hydration that the researchers used—blood viscosity, or blood thickness—improved more in those who drank Essentia than in those who drank ordinary water.² **"I've never heard of anyone measuring hydration using the method used in this study in my 30 years of research,"** says Lawrence Armstrong, a professor of kinesiology at the University of Connecticut. "This study used only one good way to measure hydration, and it didn't find any difference between groups. I have multiple concerns about this research. I would have rejected this paper, had I been one of the peer reviewers."

Bottom Line: Don't waste your money on alkaline water. *Nutrition Action*



Here's Why Counting Calories Really Isn't Necessary for Weight Loss

Counting calories is a time-consuming, soul-sucking practice that's actually a lesson in futility, as far as I'm concerned. Yet people continue to do it. They pull out their calorie-tracking apps and plug in whatever foods they've eaten, feeling guilty when they go over their "recommended" calorie amounts, then running to the gym to try to undo it all. The idea that monitoring all your calories is key for weight loss is a popular one. While I do think there's value in recording the foods you've eaten to understand what you're consuming and offer accountability, and while I do think it's important to know relative calories (e.g., cake: high, broccoli: low), it's a colossal waste of time to drill it down to every single calorie that passes your lips. Of course, calories do count, since they're what you consume when all is said and done. But counting calories can be a real drag at best, and a dangerous practice at worst. Not only does it get you focusing on numbers instead of enjoying the food you're eating, it can be a slippery slope from paying attention to calorie counts to obsessing over them. For anyone with a history of disordered eating, counting calories might be something to avoid. Weight loss is about so much more than calories. It encompasses exercise, how you sleep, how stressed you are, and health issues that you may not be able to control, like hormonal changes. If losing weight is your goal, it's important to acknowledge how individual a process it is and figure out how to do it in a way that's healthy for you. Make sure your goals are realistic for your body as well as the amount of time and energy you have to devote to the process. Spending vast amounts of energy and time poring over calories might not get you very far. Here's why.

1. You likely have no idea how many calories you actually need.

In order to accurately count calories for weight loss, you'd need to know how many calories your body burns each day simply to stay alive and keep all your systems running. And unless you've done indirect calorimetry, which I can almost guarantee you haven't—it involves lying with a mask on, hooked up to a very expensive piece of machinery for a prolonged period of time to measure your oxygen intake and carbon dioxide expulsion—you really are playing with arbitrary numbers. Yes, you can approximate the number of calories you use in a day via equations and apps, but that's all you get: an approximation. If even the "gold standard" machine can be wrong, then why let some app or equation determine how much you should be eating?

2. You don't know how many calories your body is absorbing from food.

We used to think that since 3,500 calories equal a pound, every time you eat 3,500 extra calories beyond what your body needs, you end up gaining that weight. Now we know better: Not all calories are equal like we thought. Everything from how your food is processed to how much fiber it contains determines how many calories you're absorbing from it. Even the bacteria in your gut may play a part in how you digest food and how many calories you derive from it. For example, you'll absorb more calories from cooked meat versus raw, and peanut butter versus whole peanuts. Due to size differences, one sweet potato varies in calories from another before you even take it off the shelf at the store. Calories absorbed is a complex business that's light years beyond any calorie-counting app on the market.

3. Calorie counts on packages aren't necessarily accurate.

The Food and Drug Administration allows up to 20% margin of error in the numbers on those nutrition labels. That 250-calorie snack you're eating might actually have 200 calories—or 300.

4. Counting calories can encourage you to ignore your hunger cues.

Focusing entirely on calories, instead of the quality of the food you're eating and how you actually feel before chowing down (hungry, bored, stressed, etc.), can wreak havoc on those precious hunger cues you're born with. Whether you're eating just because you "have calories left," even though you're not truly hungry, or you're not eating because you've "gone over" your calorie allotment for the day, but you're actually still hungry, you're doing the same thing: ignoring what your body is trying to tell you. Trust your body, because it knows what it needs a lot more than some random number or tracker.

5. Calorie counting adds to the misconception you can "work off" the food you eat.

One of the things that angers me most about calorie-counting apps is the impression they give that you can exercise yourself "back into the green." Going over your "calorie allowance" again and again because you think you can burn off the transgressions? Nope. Your body doesn't burn off food calorie-for-calorie like that. A 2014 study in the British Journal of Sports Medicine emphasized that "it is where the calories come from that is crucial" in determining whether your body is tempted to store them as fat, use them for energy, or apply them to some other mechanism. If you do routinely overindulge then try to work it off in the gym, you'll be exercising for a very long time, depending on the size of the junky meals you've eaten. This, in turn, may cause you to become hungrier...and eat more. Vicious cycle? Definitely.

Quinoa & Winter Fruit Salad

1 cup tri-color quinoa

2 Tbs. fresh lemon juice

2 Tbs. extra-virgin olive oil

¼ tsp. kosher salt

¼ cup loosely packed mint leaves

¼ cup loosely packed parsley leaves

2 navel or Cara Cara oranges, peeled and chopped

1 cup pomegranate seeds

1. Rinse the quinoa thoroughly in a fine mesh strainer with cold water.

2. In a medium pot, bring 2 cups of water to a boil.

3. Stir in the quinoa and reduce to a low simmer. Cover and cook until the water is absorbed and the quinoa is tender, 15-20 minutes.

4. Rinse under cold water to cool, then drain well.

5. In a large bowl, make the dressing by whisking together the lemon juice, oil, and salt.

6. Chop the herbs and immediately stir them into the dressing.

7. Toss the quinoa with the dressing.

8. Add the oranges and pomegranate seeds and stir gently to combine.

Serves 6.

Per serving (1 cup): Calories: 190 Nutrition Action



Why Cara Cara Oranges Might Be the Perfect Winter Fruit

When it comes to nutrient-packed fruits, oranges are near the top (along with guavas, watermelons, kiwis, papayas, mangos, and berries).

And around this time of year, oranges are among the few fruits that promise a little in-season sunshine.

Now there's a new kid on the citrus block. When you're out hunting for clementines, oranges, and grapefruits, don't ignore the Cara Cara navel orange bin.

Why we can't get enough of Cara Caras

Cara Caras may be the perfect oranges: **intensely sweet, lower in acid, juicy, no seeds. And that drop-dead gorgeous pink-grapefruit color.**

Then there's the 1½ days' worth of vitamin C, 30 percent of a day's vitamin A (regular navels have just 2 percent), and 15 percent of a day's folate, for just 80 calories.

As for taste, think of a cross between a navel orange and a tangerine, with a hint of berry. Makes us go all weak in the knees.

Cara Caras—they were discovered in 1976 on the Hacienda Cara Cara plantation in Venezuela—are available from December through May. **Nutrition Action**

