



7 Tips for a Better Body

from the authors of *Perfect Health Diet*

Paul and Shou-Ching Jaminet



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Introduction

Over 69% of American adults are overweight. Obesity rates have increased from 13.2% to 35.9% in the last fifty years. Something has gone wrong.

Most of the 31% of American adults who are not overweight by body mass index are “skinny fat”: they have a higher-than-optimal body fat percentage and a lower than optimal lean mass percentage. Nearly everyone can benefit from a leaner body composition.

Although there is an intense appetite for solutions – nearly every overweight person wants to lose weight and feel better – no consensus has emerged on how best to reverse obesity.

Worse, the obvious and popular remedy to excess fat – “eat less, move more” – has too often proven harmful to health. Those who engage in calorie restrictive diets tend to experience worsened health, increased weight, and a higher rate of disordered eating.

Fortunately, the rise of the ancestral health movement has brought new insight into the issue.

When we published [Perfect Health Diet](#), we soon heard from readers that it was the first diet they’d tried that eliminated hunger and cravings and enabled easy weight loss. (See our [Reader Results page](#) for stories.) And it wasn’t even a weight loss diet – it was a diet for health. Equally satisfying, we heard from athletes that it was helping them add muscle and improve performance.

Then when we started our [Perfect Health Retreat](#), a health retreat focused on teaching how to live an ancestral lifestyle in the modern world, we saw remarkable results. Of the first group of 14 to attend, eight were obese. All lost inches from their waist and significant weight – the average weight loss was 14 pounds in thirty days – while gaining energy and strength.

We were surprised at the rapidity of the weight loss. Several guests lost 25 pounds in 30 days, nearly a pound a day.

It was all the more remarkable because everyone was given a normal amount of food, could freely have seconds, and was advised to eat enough to eliminate hunger. Moreover, the exercise program was not intense – we advised only 30 minutes per day of moderate intensity exercise. This shouldn’t have generated a large calorie deficit – and yet calorie deficits are thought to be what brings about weight loss.

As scientists, we naturally wanted to understand why weight loss was so easy and rapid. So we devoted ourselves to researching the subject. We soon realized that many factors cause people to gain or lose weight; and that we could easily fill a full-length book discussing them.

This ebook is not that. It does not aim to be comprehensive, or to provide a surefire recipe for weight loss. We'll do that in a future book. In this free ebook, we just want to provide some of the most important, but commonly overlooked, steps people should take to normalize weight and improve body composition.

Maybe it should go without saying, but we'll say it anyway. One of the most important steps you can take toward good health and successful weight loss is to eat the Perfect Health Diet. Please do read [our book](#). It is the best book available on diet, nutrition, and lifestyle. It has a great deal of valuable advice that is not repeated in this ebook.

We hope you enjoy these tips and experience improved body composition!

Sincerely,

Paul and Shou-Ching Jaminet

Cambridge, Massachusetts

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Tip 1: Eat a Macronutrient-Balanced Diet

Calorie-restrictive dieting doesn't work well. Long-term outcomes in those who attempt calorie restrictive diets include worsened health, increased weight, and a high rate of disordered eating.

One reason for this failure is that people don't eat a balanced diet. They tend to pursue extreme diets – low-carb diets, or low-fat diets, or high-protein diets, or meal replacement shake diets – that may starve their body of vital nutrition; or they simply eat too little food to maintain good health.

So it's important to eat a balanced diet. But what is a balanced diet?

THE OPTIMAL DIETARY PROPORTIONS

As discussed in [Perfect Health Diet](#), our body's natural dietary proportions are about 30% carbohydrate, 15% protein, 50% saturated and monounsaturated fat, and 5% polyunsaturated fat.

It's a mistake to err in either direction:

- Higher intakes of a macronutrient, such as carbs, create an excess that the body may struggle to get rid of.
- Lower intakes of a macronutrient, such as carbs, create a starvation condition in that nutrient. This can trigger hunger, cravings, disordered eating, or negative health effects.

The best course to weight loss is moderation: aiming to give the body exactly what it needs, no more, no less.

This is done by eating the macronutrient proportions of the Perfect Health Diet.

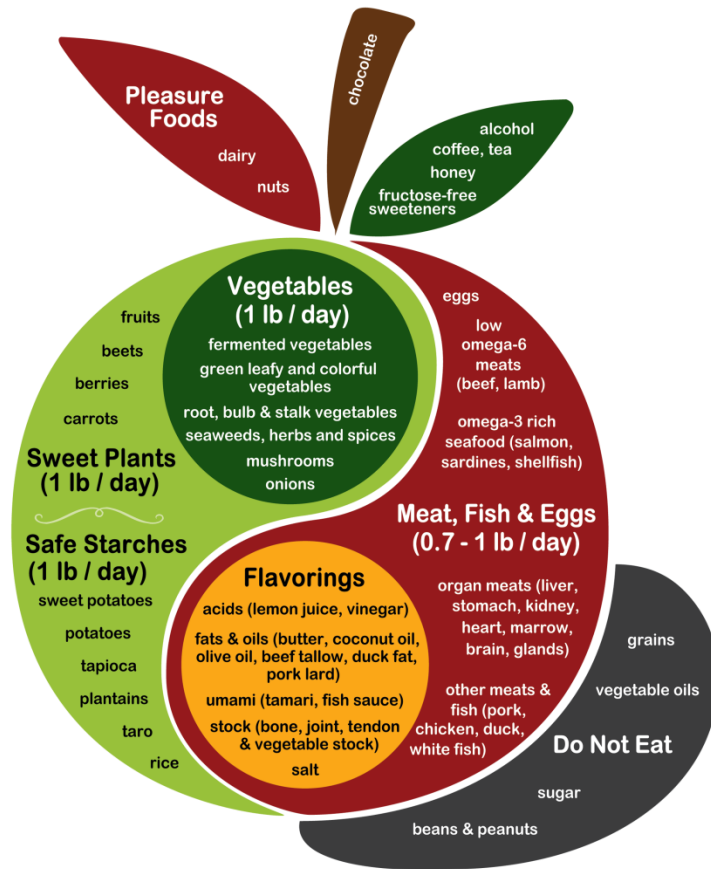
A BALANCED DIET IN FOODS

So – we should eat a macronutrient balanced diet, as defined in *Perfect Health Diet*. But how does that translate to foods?

Read *Perfect Health Diet* for all the details, but below is a graphical representation – our "[PHD food plate](#)," in the shape of a yin-yang apple.

The body of the apple represents the components of a **meal**; the yin-yang symbol represents a **balance of plant and animal foods**. The leaves and stem represent pleasure foods that should be eaten in moderation. In the shadow of the apple are foods to avoid – cereal grains, sugar, beans and peanuts, and vegetable seed oils.

A day's meals should include:



- About a pound of **“safe starches”** – these are starchy plants that are low in toxins after cooking, such as white rice and potatoes.

- About a pound, or a bit less, of **meat, fish, and eggs** – these are the complementary animal foods to the starches.

- About a pound of **sugary plants** such as fruits, berries, beets, and carrots.

- About a pound of **low-calorie vegetables** from diverse sources, including green leafy vegetables, seaweed, fermented vegetables, mushrooms, onions and garlic, and others.

- **Flavorful sauces** composed of healthy fats

such as butter, beef fat, olive oil, avocado, coconut oil, and macadamia nut butter; acids such as vinegar, citric acid from lemons or other citrus fruits, and lactic acid from fermented vegetables; and umami flavors such as are found in fermented foods, plus herbs and spices.

These amounts are just guidelines – older women will need less, young male athletes more. Keep these proportions and adjust quantities to your individual needs. But eat enough to avoid hunger or stress.

TIP

A balanced diet will serve you in good stead. Eat a balanced diet of natural whole foods – mostly plants, as Michael Pollan says, by weight; mostly animals, by calories.

Tip 2: Be Well Micro-Nourished

We argue in Perfect Health Diet that appetite exists to nourish our bodies: when we are lacking some nutrient, our brain drives us to eat.

If obesity is caused by overeating, then, we suggest, it is likely that the obese are malnourished. It is because their diet is missing nutrients that the obese are hungrier and eat more food.

MALNOURISHMENT AND OBESITY

What do we find when we look at nutrient status of the obese?

- Vitamin D insufficiency increases the rate of abdominal obesity by 2.57-fold in one study, 3.2-fold in another.
- Intracellular magnesium levels are less than half as high in the obese than in the non-obese.
- Iron deficiency is associated with obesity.
- Among a set of morbidly obese patients, 73.8% were zinc deficient and 67.8% were copper deficient.

Yes, indeed: the obese often are malnourished.

If our theory is right, then relieving malnourishment should reduce the incidence of obesity.

There is some evidence that it does:

- In a clinical trial from China, obese women who took multivitamin and multimineral supplements lost 8 pounds over 6 months and enjoyed reduced waist size and lower blood pressure, while those who took a placebo lost only 0.4 pounds.
- In a prospective study of 15,655 individuals, long-term use of supplements was associated with significantly lower levels of weight gain over a 10-year follow-up period.

Even when supplements don't lead to weight loss, they reduce appetite and make fasting more comfortable.

MICRONUTRITION FOR WEIGHT LOSS

What are the most important nutrients for the obese to tend to? The evidence suggests choline, vitamin D, vitamin A, magnesium, and vitamin C.

Choline has been shown to prevent metabolic syndrome, fatty liver, and obesity. The best sources of choline are Liver and egg yolks. We recommend eating ¼ pound (110 g) liver per week, and three egg yolks per day.

Vitamin D is a major factor in immunity and metabolism. A number of studies show that those who maintain good vitamin D status are much less likely to be overweight or obese.

The best source of vitamin D is sunshine on bare skin, of course; but if that is impossible, it's good to supplement. You want a total of 4,000 IU per day from sun and supplements combined.

Vitamin A is another important nutrient, partly because it is an essential partner enabling vitamin D to play its functions.

Good sources of vitamin A include liver (the aforementioned ¼ pound per week), green leafy vegetables like spinach and orange-yellow fruits and vegetables like sweet potatoes, carrots, and persimmons.

Magnesium has a wide range of uses in the body, and magnesium deficiency induces insulin resistance and mitochondrial impairment, conditions that may contribute to obesity.

It's easy to be deficient in magnesium because most foods have less than we need. We recommend supplementing 200 mg per day of a magnesium amino acid chelate, such as magnesium glycinate; and eating lots of green leafy vegetables.

Vitamin C performs a number of functions that protect against obesity, and the obese tend to be deficient in vitamin C. It's likely that its role in maintaining collagen is important, so it's probably good to eat not only vitamin C, but also dietary **collagen** from soups and stews made with bones, joint material, and tendons.

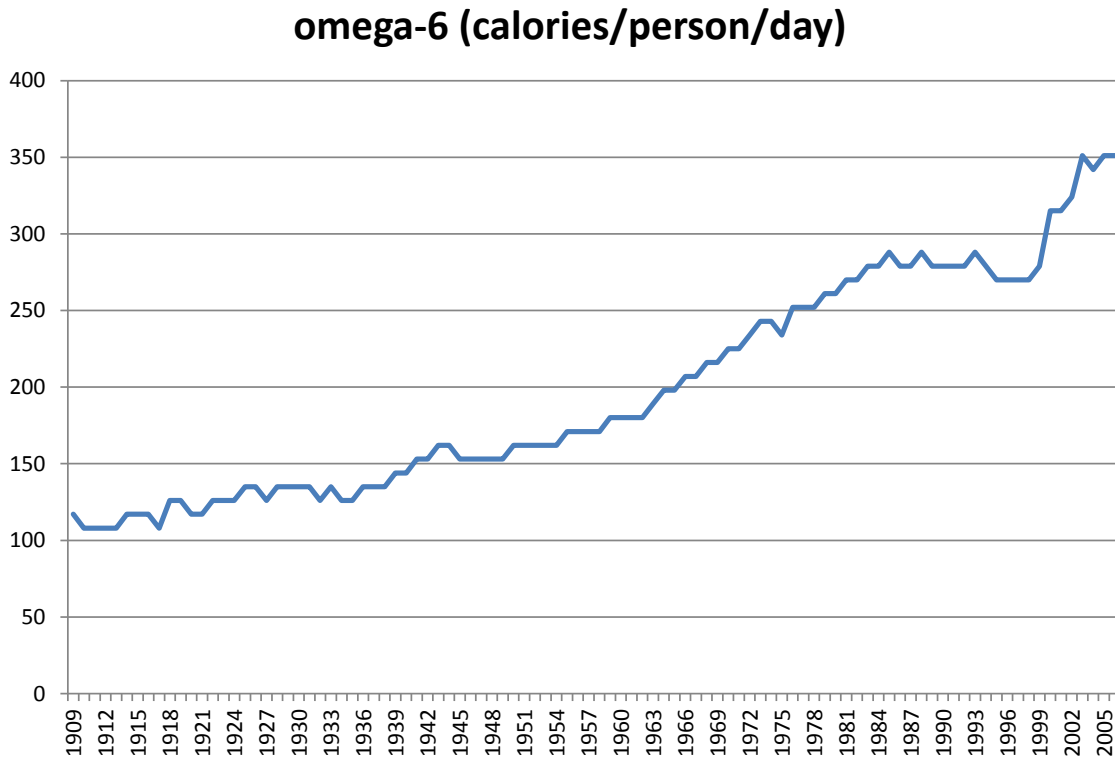
If you are healthy, eating sweet peppers and citrus fruits can provide enough vitamin C. But for many people, it's a good idea to supplement as well.

TIP

Obesity may be promoted by malnutrition, and certain nutrients – choline, vitamin D, vitamin A, magnesium, and vitamin C – are especially important for preventing obesity and supporting weight loss. Tend to your micronutrition!

Tip 3: Ruthlessly Eliminate Omega-6 Fats

Here is a chart of omega-6 intake in the United States since 1909:



This may have a great deal to do with the obesity epidemic.

OMEGA-6 FATS AND OBESITY

In both rodents and humans, fat mass increases as omega-6 consumption increases.

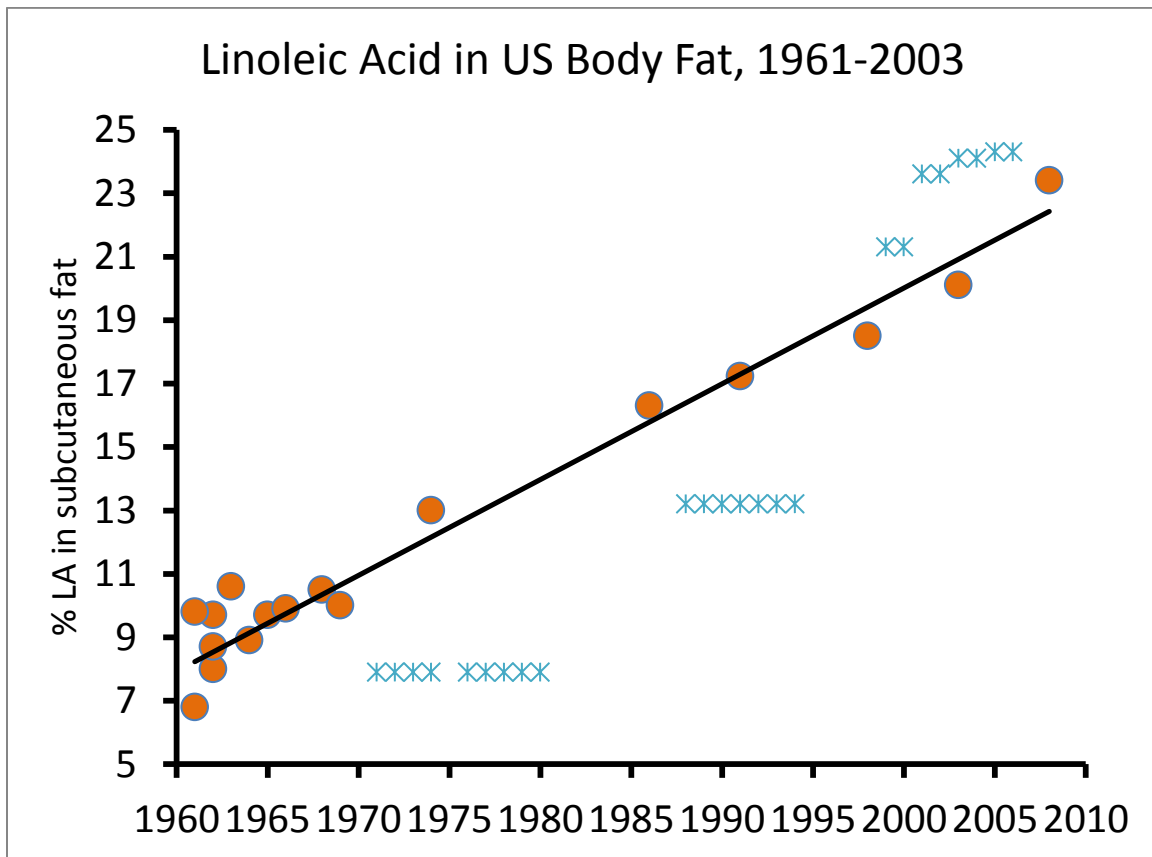
Why do omega-6 fats promote obesity? There appear to be three plausible pathways:

- Omega-6 fats damage mitochondria and limit the body's ability to burn fat.
- Omega-6 fats increase appetite by stimulating the endocannabinoid system, similarly to how marijuana induces the munchies.
- Omega-6 fats disrupt the gut flora and promote metabolic endotoxemia.

These are all discussed in our book. Here, we'll just note that omega-6 fats have a pesky habit of accumulating in the body.

ACCUMULATION OF OMEGA-6 FATS IN THE BODY

One sign that we have too many omega-6 fats in our diet is their accumulation in our adipose tissue. Here is data assembled by Stephan Guyenet of the University of Washington:



It appears that when dietary omega-6 intake began to exceed 6% of energy in the 1960s, omega-6 fats start to accumulate in adipose tissue. Obesity rates began to rise soon after.

TIP

It pays to reduce omega-6 fat consumption. To achieve this, you must ruthlessly eliminate soybean oil and other vegetable seed oils from your diet. This more or less precludes eating packaged foods in the supermarket, nearly all of which use these inexpensive oils.

Tip 4: Entrain Circadian Rhythms

Our bodies are designed to operate on a 24-hour rhythm. They rise with the sun, so to speak, and should set with it too. Certain bodily functions are best performed during the day; others are best performed at night.

CIRCADIAN RHYTHM DISRUPTION AND OBESITY

Circadian rhythm disruption is often the first step toward obesity. The obese have disrupted circadian rhythms, and circadian rhythm disruption occurs early in the development of obesity. In mice, impairment of circadian clocks in liver and adipose tissue precedes metabolic abnormalities and obesity.

Proper entrainment of circadian rhythms prevents obesity. Butter causes obesity in rodents because they eat it at all hours, disrupting circadian rhythms. But if rodents are allowed to eat only in an 8-hour feeding window which conforms with their normal circadian feeding period, they do not become obese.

Shift work – working at night – is a well-known disrupter of circadian rhythms. Shift work promotes obesity:

- In a Swedish study, shift work was associated with a 40% higher risk for obesity (BMI over 30).
- In young Dutch shift workers, BMI is significantly higher compared to day workers – 27.2 vs 23.7.

HOW TO ENTRAIN CIRCADIAN RHYTHMS

To support our body's natural rhythms, we need to provide our body with the right environment. There are five known zeitgebers, or time givers to the circadian rhythm system:

- **Light.** We need to be exposed to bright natural white light during the day, similar to sunlight. We need to avoid light with any blue component at night. Night lighting should be red/yellow in color, similar to a campfire or candlelight.
- **Ambient Temperature.** We should be exposed to warmer temperatures during the day than at night. Night time temperatures should be cool enough that slight adjustments to bed covers can make for comfortable sleep. Day time ambient temperatures should be warm – at least 72°F. Do not use excessive air conditioning during the daytime! Adjust your thermostat upward every morning and downward every evening.
- **Social interactions.** Social interactions are a crucial driver of circadian rhythms. We need to interact with others, see faces, and

hear voices during the day time if we are to be healthy. At night, it is important to avoid stressful relationships and drama.

- **Physical activity.** Physical activity, too, drives rhythms. We need to be physically active in the day time and to rest in the night time.
- **Meal timing.** Meal timing is another important driver of rhythms. It is very important to eat only in the day time. It is even better to restrict feeding to a short feeding window of about 8 hours.

The dominance of blue light in setting circadian rhythms is remarkable. Blue and ultraviolet light, which are only present in significant amounts in daytime, are highly effective at entraining circadian rhythms. Green light is only about one-twentieth as effective as blue light, and yellow and red light have minimal influence upon circadian rhythms.

Thanks to this dominance, it's very easy to prevent night time light from disrupting rhythms – wear blue blocking glasses, or choose lighting that offers only red-yellow light.

In the daytime, there is another risk – not getting enough bright white light. Going outdoors for several hours a day is the best strategy for entraining circadian rhythms, but if you can't do that, you need to arrange for bright “natural light” bulbs indoors.

TIP

Entraining circadian rhythms is crucial for healthy weight loss. Tend to your light environment, your meal timing, your social environment, your ambient temperature, and your social interactions. It will pay off.

Tip 5: Do Intermittent Fasting Daily

Daily intermittent fasting turns out to be a terrific way to improve health and to lose weight at the same time.

INTERMITTENT FASTING FOR HEALTH AND WEIGHT LOSS

In mice, intermittent fasting works great for weight loss, and for preventing obesity.

On an obesogenic diet, mice that could eat whenever they wanted became obese, but mice that could only eat in an 8 hour window did not gain weight. This happened even though calorie intake was the same between the two groups!

In humans, too, intermittent fasting is an effective weight loss strategy. Obese women in an 8-week trial of intermittent fasting lost 5.5 pounds of body weight and 4.1 pounds of fat mass – decreasing their fat percentage and improving body composition.

Intermittent fasting is as effective for fat loss as calorie restriction, but it preserves lean mass – such as muscle – much better.

The success of intermittent fasting for weight loss is probably connected to the importance of entraining circadian rhythms. Food is an important zeitgeber, and restricting food to a daytime window helps to improve circadian rhythms. One clue that this is the case: night time eating can disrupt weight loss:

- Ramadan fasting – which requires fasting during the day and feeding at night – causes loss of lean mass without changing fat percentage.
- Calorie restriction makes feeding a more salient zeitgeber, meaning that when someone is dieting, night time eating is even worse for health.

Obesity, it turns out, is strongly associated with “night eating syndrome.”

In a telling study, eating the largest meal at mid-day was associated with reduced weight and less obesity, while eating the largest meal in the evening doubled the odds of becoming obese.

TIP

We highly recommend intermittent fasting. The more concentrated your food intake into a shorter daily feeding window, the easier you’ll find weight loss, and the longer you’ll live.

But – and this is crucial – your feeding window must be in the day time. **Do not eat at night.**

Tip 6: Get Intense Exercise Daily

A habit of daily exercise is one of the most healthful things you can do. Exercising enough to develop good cardiorespiratory fitness can reduce mortality by over 75%. Increasing strength can reduce mortality by 35%.

EXERCISE AND WEIGHT LOSS

Although exercise is extremely important for health, its role in weight loss is somewhat more controversial.

A recent review states:

Weight loss resulting from an exercise intervention tends to be lower than predicted.... We conclude that the small magnitude of weight loss observed from the majority of evaluated exercise interventions is primarily due to low doses of prescribed exercise energy expenditures compounded by a concomitant increase in caloric intake.

In other words, people rarely exercise with intensity, and high volumes of exercise lead people to eat more food.

If exercise fails because it is not intense enough, and more exercise leads to more eating, then the best strategy for weight loss might be intense, but brief, exercise. This is the strategy known as **high-intensity interval training** (HIIT).

Indeed, HIIT has demonstrated superior results for body recomposition:

- In a 15-week program comparing HIIT with steady-state exercise, both improved cardiorespiratory fitness, but only HIIT led to a significant reduction in fat mass. The HIIT exercisers lost an extra 5.5 pounds of fat.
- Although a 20-week endurance training regimen burned more than twice as many calories as a 15-week HIIT program, the HIIT program "induced a more pronounced reduction in adiposity."
- In diabetic men, 8 weeks of HIIT led to a 44% reduction in abdominal adiposity but an increase in lean mass.
- In much less time, sprint interval training reduced fat mass by 12.4% and increased lean mass by 1%, while endurance training reduced fat mass only 5.8%.

Still more results were summarized in a recent review.

One paper concluded, "vigorous exercise favors negative energy and lipid balance to a greater extent than exercise of low to moderate intensity."

So if your goal is weight loss, try upping the intensity of your exercise, and doing it intermittently, interval style.

INACTIVITY AND OBESITY

It's not only exercise that matters; what you are doing the other 23 hours of the day matters too.

Extended inactivity harms your health no matter how much exercise you do.

It also leads to a growing waistline. The Quebec Family Study found that every 15-minute increase in sitting time added 0.13 centimeters to the waistline.

Just 20 minutes of sitting is enough to inhibit weight loss. Taking frequent breaks from sitting, at 20 minute intervals, reduces weight circumference and BMI.

TIP

Throughout the day, take frequent breaks from sitting – preferably, every 20 minutes. Consider using a standing desk to help promote low-level activity and fidgeting.

In addition, spend time every day doing intense exercise. Do a mix of cardiorespiratory and strength building exercise; and do it interval style, at high intensity with frequent breaks for rest. A common protocol is 30 seconds of high intensity exercise, followed by four minutes of rest, repeated four to six times.

Tip 7: Cultivate a Healthy Gut Microbiome

This may be the single most important step for weight loss.

REDUCED MICROBIAL DIVERSITY IN OBESITY

The obese have reduced microbial diversity in their guts. They have about 40% fewer bacterial genes, and this reduced bacterial diversity is associated with, and in animal experiments causes, metabolic syndrome and low-grade inflammation.

Virtually every known method for reducing microbial diversity has been shown to promote obesity. This is most visible in infants:

- Babies born by Caesarean section, which prevents acquisition of flora from the mother's vagina and reduces microbial diversity, are 83% more likely to be overweight or obese at age 11.
- Infants given antibiotics before age 6 months are 22% more likely to be overweight at age 3 years 2 months. The effect is even stronger if we look only at babies of normal-weight mothers (thus starting with a non-obesogenic gut flora): they are 85% more likely to become obese if they are given antibiotics as babies.
- Compared with breastfed infants, formula-fed infants have higher rather than lower levels of energy expenditure and are more at risk for obesity in later life.

Breast milk contains factors that promote a healthy flora and are lacking in formula: bacteria translocated from the mother's gut, oligosaccharides (a form of indigestible fiber that feeds beneficial bacteria), and antimicrobial compounds that help shift the flora towards a symbiotic profile.

Some have speculated that antibiotics may be an unheralded cause of the obesity epidemic. Subtherapeutic doses of antibiotics promote obesity in animals. The first popular antibiotic, penicillin, was discovered in 1928, and antibiotics came into widespread use in the 1950s and 1960s – about the time that the obesity epidemic. Use of antibiotics in food production has increased steadily during the period of the obesity epidemic, where they are used at subtherapeutic doses as a growth stimulant.

STRATEGIES FOR INCREASING MICROBIAL DIVERSITY

Here are key steps to building a healthy gut microbiome:

1. Feed your gut microbes properly, with a diverse mix of healthy carbohydrate based fiber and microbial nutrients from natural whole foods.

2. Regularly increase microbial diversity by eating fermented foods and, possibly, probiotics.

Eat Fiber and Prebiotics

The most beneficial forms of carbohydrate fiber are:

- Resistant starch from “safe starches” like potatoes.
- Oligosaccharides from fruits and vegetables.

It may not be a coincidence that a drop in fiber consumption coincided with the obesity epidemic. The percentage of carbohydrate from fiber dropped from 5.8% in the 1940s to 4.7% currently, as people gave up natural whole foods for industrially prepared foods lacking in fiber.

Eat Fermented Foods and Probiotics

Eating fermented foods can significantly improve diversity of flora. Fermented vegetables are best at this.

It's no surprise that cultures that eat a lot of fermented foods have always been lean. To take one example, Korea:

- The traditional dietary pattern rich in kimchi is associated with lean body composition.
- Microbes in kimchi have been found to have an anti-obesity effect.
- Fermented garlic, also popular in Korea, has an anti-obesity effect.

In addition to eating fermented foods, probiotic supplements may help. Some bacterial strains are quite effective at promoting leanness. In obese mice, administration of the probiotic *Lactobacillus reuteri* at age 12 months led to dramatic weight loss.

TIP

Cultivate a diverse gut microbiome by eating diverse starchy plants, fruits and vegetables; eating fermented foods; and avoiding antibiotics.

Conclusion

Here are our seven tips:

1. **Eat a macronutrient-balanced diet – the Perfect Health Diet.** This will best support long-term hunger-free weight loss.
2. **Be well micro-nourished.** A number of key micronutrients – notably, choline, vitamin D, vitamin A, magnesium, and vitamin C – are important for improving body composition. If you can't get these from food, supplement.
3. **Ruthlessly eliminate omega-6 fats.** These fats may well be a major cause of the obesity epidemic. There is no good reason to eat soybean oil.
4. **Entrain circadian rhythms.** This is perhaps the single most helpful thing you can do for your health. It works for weight loss and body recomposition too.
5. **Do intermittent fasting.** Restricting food intake to a short window is very good for metabolic health. Your body needs time every day without the stress of metabolizing food.
6. **Get intense exercise daily.** We need daily exercise for circadian rhythm entrainment; for weight loss, we need intense, brief exercise. Try upping the intensity and shortening the duration of your exercise. It may pay dividends in your body composition.
7. **Cultivate a healthy gut microbiome.** Perhaps the single most helpful step for weight loss, we are only now realizing the importance of our gut microbes in managing our weight and body composition. Eating appropriate prebiotic fiber and probiotic fermented foods will go a long way toward facilitating a lean body.

Notice the common element here? These are all things that our hunter-gatherer ancestors did as a matter of course in daily living. They had only natural whole foods, low in omega-6 fats, to eat; they perforce had to get exercise and go out in the sun daily to gather their foods; they were subject to long overnight fasts since breakfast wasn't waiting in the refrigerator.

Boiled down to its essence, the recipe for weight loss is to return to an ancestral diet and lifestyle. An ancestral approach to health is the key to halting and reversing the obesity epidemic.

In conclusion – please do check out our [Perfect Health Diet](#). You'll find many more tips there for lifelong good health and easy weight loss!

Yours, Paul & Shou-Ching