

[IMAGE]

## Why We Are Fat and What We Can Do About It

By Marlene Merritt, DOM, LAc, ACN

You know you've done it — seen someone morbidly obese and thought to yourself, "Why couldn't they just control themselves?" or stood in the supermarket, comparing people's carts to how they look, or any other myriad of judgments we have when we see someone who is overweight. Many of us have this overly simplified view that it's just a matter of exercising more and eating less, that it's the First Law of Thermodynamics with its "calories-in-calories-out" model. I'm here to tell you that you couldn't be more wrong.

"But it's the fault of the fast food restaurants!" people cry out. Soda! Larger portions! High fructose corn syrup! Yes, that's all true. It's also because we spend more time in front of computers with less exercise, we eat out more, and we eat more processed food, right? There are a lot of reasons, and many of them are reasonably accurate. But there's a bit more to the picture than you realize.

Let's start with some basics, and ones that are irreconcilable truths. The first one is, our systems are designed for times of feasting and times of starvation. There is no getting around that. Remove those periods of starvation, and our systems start to break down with the caloric overload. And once our systems are broken, it can be nearly impossible to get them completely "fixed". The other fact is that there are a lot of weird "things" in our environment nowadays that our system doesn't know how to handle, and those molecules are causing changes from the genetic level on up (that's what the study of epigenetics looks at — the impact of "foreign" molecules on cellular processes). Bring those two pieces together and we have a virtual tidal wave of obesity, and no way to turn it around.

fat person - Copyright â Stock Photo / Register Mark Most people know that, at some point, calories DO count. The problem is (and Weight Watchers has finally realized this) that a calorie is not just a calorie. A carbohydrate calorie, for example, comes with insulin (which, when present in the blood stream, completely prevents you from burning fat). If you eat too much protein, your body will turn it into fat as well. And not all fats are calorie-bombs that make you fat: coconut oil and its medium and short-chain fatty acids gets burned in your body as quickly as carbohydrates and won't turn into fat. So the model of "calories-in-calories-out" isn't fully accurate because you are not a furnace. Calories count, sort of, but not

totally.

Then there's the low-carb movement, of which I am a proponent. I made a very popular video about blood sugar and how we progress to diabetes on YouTube ([www.youtube.com/merrittwellness](http://www.youtube.com/merrittwellness)) but it basically comes down to this: we were given a certain amount of "points" for carbs in our lifetime, and most people have used those "points" up by the time they're 30 years old. Which means that after that, carb intake starts to cause biochemical breakdowns, insulin resistance, hormonal imbalances, and all the problems that are associated with too much insulin and too much glucose in the body. This is a big foundation for our practice, and, without question, can improve a lot of symptoms that people struggle with, as well as reverse blood sugar imbalances. And yet, that's not the whole problem either. So what else is "broken" that is contributing to our obesity problem?

Sometimes it's an easy change — the way most people exercise, for example, is often not helping them lose weight. Studies have consistently shown that the 45-60 minute cardio session people are doing simply makes them hungrier, and they end up eating more. Spending 30 minutes walking, for example, is definitely better than nothing, but your body gets accustomed to easy exercise like that. On the flip side, high intensity exercise done over a longer time (think spin classes) can increase inflammation which then contributes to weight gain (or, at least, inhibits weight loss). Exercise, without question, is beneficial in many, many ways, and we are large proponents of varying forms of exercise, but if you think it's going to help you with weight loss, well... just check out all the overweight people training for marathons. You can't tell me they need more exercise!

Here's a crazy one you might not have heard: did you know that if you have the wrong type of gut bacteria, those bacteria can cause weight gain? In studies done with morbidly obese people, it was observed that certain strains of bacteria more efficiently extracted calories and nutrition out of food than others. , It just depends on what combination of gut flora you have — that same handful of crackers you eat may or may not have the same caloric impact on the next person. And how do we have such wildly differing gut bacteria? Well, the average child, by the time they start school, has had 20 different antibiotic prescriptions. How many have you had over your lifetime?

Which brings us to the direct impact of antibiotics on obesity. This research study bluntly said, "...both antibiotics and probiotics, which modify the gut microbiota, can act as growth promoters, increasing the size and weight of animals. The current obesity pandemic may be caused, in part, by antibiotic treatments or

colonization by probiotic bacteria." That's right — conventionally raised animals are treated with antibiotics AND probiotics so that they gain weight. In fact, these researchers pointed out that conventionally-raised feed-lot animals are treated with antibiotics and probiotics to cause weight gain and they wanted to see if short-term antibiotic treatment to humans, given after endocarditis, caused weight gain (it did). Another reason to buy grass-fed beef and pasture-raised chickens.

Of course, there is always the issue of hormones. About 10% of the population has hypothyroidism and that's always an area to check when working with weight gain. But why is there such an epidemic of hypothyroidism? Is it the lack of iodine in the diet? High stress (the stress hormone cortisol inhibits T3)? High estrogen levels (often from insulin resistance, and estrogen inhibits T3 as well)? Fat cells actually make their own estrogen, so take a look around you and think about how much estrogen might be in someone's system. Or what about xenoestrogens — chemicals that act like estrogen in the body? They also will contribute to obesity. What about adrenal disorders like Cushing's? It's rare, but imagine if all of a sudden you started gaining weight, and yet people told you it's because you were eating too much. And then it took the doctors years to figure out you had a hormonal problem like Cushing's. Yes, you'd feel hopeless too. You are probably starting to see that these hormonal issues don't stand by themselves, but can be interwoven with other hormonal problems or other issues altogether.

What about the metabolic damage that comes with a history of dieting? Yo-yo dieting (which, for most people, happens over years) severely stresses the thyroid. When caloric intake is low, the metabolism slows down, and it ultimately starts to stay low. So if you have patients who have a history like this, they may always struggle with weight, even if they are doing all the right things.

Then there's stress. Muffin top is a common complaint for many people, but what most people don't realize is that the stress hormone cortisol is responsible for that central obesity. And stress looks very different than most people think it does. I will talk to many of my patients about carbs, and they will lose weight around their middle when they change their diet, but that's because a high-carb diet is stressful for the body. Stress isn't just your job, or how you react to situations — it's also how much sleep you get, because not enough sleep is an independent risk factor for obesity. , It's how much inflammation you have, whether it's from chronic pain, unknown food intolerances, intestinal permeability, allergies, low-level sinus infections that you know (or don't know) you have, teeth and mouth problems like gingivitis or untreated periodontal disease, over-exercising... the list goes on and on. This is probably the biggest area that people don't deal with, because many of them don't realize the impact or the need to change.

Wait! We're not done yet! Let's look at the issues with chemicals that are KNOWN to cause health and weight issues — polychlorinated biphenyl (PCB's), dichlorodiphenyltrichloroethane (DDT), and Bisphenol A (BPA). While PCB's and DDT are, thankfully, a bit more limited in society now, the prevalence of BPA and its health risks should shock you. BPA has been directly linked to obesity , , hormone disruptions , and increased risk of cancer, especially breast cancer . While it only take about 3 days to clear from the body, the problem lies in our continuous exposure to it, as it's found in most plastics (like those disposable water bottles, take-out containers, plastic wrap, food storage containers), as well as food and soda cans. When you microwave in plastic, or put hot food in plastic containers, or drink water in containers that were exposed to heat (think about how those cases of water are shipped in trucks) you begin to get a sense of where you ingest it. Even worse, it's found in credit card receipt paper and other thermal papers. In fact, paper money also carries BPA from rubbing up against it in your wallet. And the most vulnerable victims are children and babies, as their immature livers cannot process this chemical to clear the body as well as adults.

What about prescribed medications? Entire classes of drugs are known to cause weight gain and ironically, one class of them is anti-depressants. Tricyclic antidepressants (TCA's), selective serotonin reuptake inhibitors (SSRI's), and monoamine oxidase inhibitors (MAOI's) all have been known to increase weight in at least 25% of people taking them. Of course birth control pills are known to cause weight gain, beta blockers, and, of course, steroids, will also increase weight. And, according to the CDC, 22% of children are on prescription meds, 30% of teenagers, 88% of people over 60 years old are on at least one medication, and one-third of them are on five or more. If you are 20 to 59 and are on a medication, statistically it's probably an anti-depressant.

Can you start to see how some of these things tie together? Like antibiotic use damaging the gut biome, causing intestinal permeability, resulting in the body reacting to food proteins that should have stayed in the gut, causing inflammation around the body. Here's another example: high-carb intake causing insulin resistance, in turn causing high estrogen (which just by itself causes weight gain — why do you think they inject estrogen into cattle?), which then interferes with thyroid function. Or someone is on a prescription med, doesn't eat ideally, and then has an injury that prevents exercise. And we look at them and think it's that they're undisciplined and lazy.

Then, of course, there are factors like Vitamin D levels contributing to obesity, leptin resistance causing people to never feel full, and how diet sodas increase obesity even more than regular sodas. And naturally, people are quick to say that obesity can be genetic, but you want to think about that: have our genes really

changed in the last 25 years? No, they have not, but a lot of other things have. Put all of these factors together in some combination, add in the cultural pulls we have in TV commercials, that we have the cheapest food in the world (literally and nutritionally), a subsidized farming culture, food marketing to children, and a plethora of other factors, and you can see that it's simply wildly inaccurate (not to mention statistically ineffective) to tell people to count their calories and exercise more.

So what **SHOULD** people do? Well, no matter what, sugar and insulin cause huge amounts of damage so people should manage their carb intake. People should do short, intense exercise, like intervals. All the different elements that affect stress need to be looked at and addressed, including finding hidden infections, coaching people on lifestyle practices, and supporting adrenal health. Proper thyroid panels need to be run (TSH is not enough), training people to not automatically get antibiotics, learning how to repair gut flora... yes, there are many avenues to work with, but hopefully this has opened your eyes to the complexity of the situation, and you can begin to unravel this tangle for people. Believe me, they will be beyond grateful.

### *References*

1. Leanne M. Redman, Leonie K. Heilbronn, Corby K. Martin, et al. Effect of Calorie Restriction with or without Exercise on Body Composition and Fat Distribution. *The Journal of Clinical Endocrinology & Metabolism* March 1, 2007 vol. 92 no. 3 865-872
2. Church TS, Martin CK, Thompson AM, Earnest CP, Mikus CR, et al. (2009) Changes in Weight, Waist Circumference and Compensatory Responses with Different Doses of Exercise among Sedentary, Overweight Postmenopausal Women. *PLoS ONE* 4(2): e4515.
3. Sonnenburg JL, Xu J, Leip DD, Chen C-H, Westover BP, Weatherford J, Buhler JD, Gordon JL. Glycan foraging in vivo by an intestine-adapted bacterial symbiont. *Science*, Mar. 25, 2005.
4. Matej Bajzer<sup>1</sup> & Randy J. Seeley. Physiology: Obesity and gut flora. *Nature* 444, 1009-1010 (21 December 2006)
5. D. Raoult. Obesity pandemics and the modification of digestive bacterial flora
6. *European Journal of Clinical Microbiology & Infectious Diseases*. August 2008, Volume 27, Issue 8, pp 631-634
7. Thuny F, Richet H, Casalta J-P, Angelakis E, Habib G, et al. (2010) Vancomycin Treatment of Infective Endocarditis Is Linked with Recently Acquired Obesity. *PLoS ONE* 5(2): e9074.
8. Gingras, J. Harber, V. et al. Metabolic assessment of female chronic dieters with either normal or low resting energy expenditures *Am J Clin Nutr* June 2000 vol. 71 no. 6 1413-1420

9. Miller, Michelle A.; Cappuccio, Francesco P. Inflammation, Sleep, Obesity and Cardiovascular Disease. Volume 5, Number 2, April 2007 , pp. 93-102(10)
  10. Gangwisch JE; Malaspina D; Boden-Albala B et al. Inadequate sleep as a risk factor for obesity: analyses of the NHANES I. SLEEP 2005;28(10): 1289-1296.
  11. Heindel, J.; Vom Saal, F. (May 2009). "Role of nutrition and environmental endocrine disrupting chemicals during the perinatal period on the aetiology of obesity". Molecular and cellular endocrinology 304 (1–2): 90–96.
  12. Rubin, B. S.; Soto, A. M. (May 2009). "Bisphenol A: Perinatal exposure and body weight". Molecular and cellular endocrinology 304 (1–2): 55–62.
  13. Gore AC. Endocrine-Disrupting Chemicals: From Basic Research to Clinical Practice. Humana Press; 8 June 2007. (Contemporary Endocrinology).
  14. Briskin C (2008). "Endocrine Disruptors and Breast Cancer". CHIMIA International Journal for Chemistry 62 (5): 406–409.
  15. Soto Am, S. C.; Sonnenschein, C. (2010). "Environmental causes of cancer: endocrine disruptors as carcinogens". Nature Reviews Endocrinology 6 (7): 363–370.
  16. Fowler, S. Williams, K. et al. Fueling the Obesity Epidemic? Artificially Sweetened Beverage Use and Long-term Weight Gain. Obesity (2008) 16, 1894–1900.
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