

Weighing In: December 2012



The Big Fat Lie That We All Endure During the Holidays

One of the things I enjoy most about working at The Weigh Station is spending time with the patients. About this time every year, we run into a lie that some patients buy into. It starts with seeing their family and having lost a lot of weight. Someone will say to them "you can have a little bit of that" or the next one is "your aunt Sally spent all evening preparing these just for you. It's just brownies!"

When people buy into these lies, things start to unravel quickly. The next lie is "you're on a low-carb diet? You know low-carb diets will cause your heart to explode." Some of you heard Dr. Westman from Duke University speak at our metabolic conference recently. Hopefully, we'll get to do another one in the spring if you missed it. The problem with people telling you to stay off of low carbohydrate diets is that they usually have no idea what they're talking about. Learning about low carbohydrate diets, saturated fat, and cholesterol is what drove Dr. Westman to do his research to write the obesity textbook.

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One book that you heard Dr. Westman speak about during the conference was [Why People Get Fat](#) by Gary Taubes. Research shows that living the low-carb way changes not only your health but your mental clarity. Gary Taubes is one of the few people on Earth who has reviewed the entire field of literature on public health, nutrition and obesity. He spent multiple years with lots of assistance in multiple libraries throughout the United States and Europe and spent his own money to do this. If there's any study out there that was ever published anywhere on diet and health he's read it and has been helping people understand how low-carb diets really work. Taubes' interview follows below:

Gary, will the saturated fat and cholesterol in a low carb diet kill you?

This was actually my fear when I first started a low-carb diet 10 years ago as an experiment. I'd sit there eating scrambled eggs and bacon for breakfast waiting for my heart to blow up and then I did some research.

I wanted to see how we came to believe this idea that saturated fat and cholesterol are bad for you, and whether or not our beliefs were justified. Believe it or not, I have actually read the entire field going back to the 1800's. One of the things that I was looking for was the point when the idea that saturated fat and cholesterol were killers was still controversial. That was in the 1970's.

The first thing I saw was that there were some very zealous physicians who decided that saturated fat and cholesterol were killers even when their own studies did *not* show this. The biggest study ever done on this question prior to the 1970's – was called the Minnesota Heart Study.

It was a study of 9,000 patients in Minnesota Mental Hospitals. They put half of these people on cholesterol lowering diets in which they increased the polyunsaturated fat and decreased the saturated fat. The other half got exactly what they'd been eating all along.

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More people died in the group that was eating the cholesterol lowering diet than died in the group that was eating the way they wanted to eat. The way the researchers responded to this was interesting – they simply didn't publish the study for 17 years.

That's the kind of bias that I saw as a journalist – you get a study that actually refutes your beliefs, and the response is you don't publish it.

Imagine if you had a hypothesis that all coins had only one side. So you run an experiment to prove this hypothesis. You flip the coin and it comes up heads so you say, "see its heads." But, when it comes up tails and then you go, "well that didn't count, I want a do over."

You just throw out every piece of evidence that disagrees with you – which is in effect, what these people did throughout the 1960's and 70's. Then the National Institutes of Health funded a study with a long name – the Lipid Research Clinics Coronary Primary Prevention Trial (LRC). This was the first cholesterol-lowering drug study that ever worked.

So what about cholesterol?

The first thing you need to know is that *cholesterol is exceedingly important to our bodies*. We make hormones out of it, it's essential to our nervous system, it's absolutely essential to the membrane in every single cell in your body. Cholesterol in your diet has always been sort of a joke. Researchers knew in the 1930's that we will down-regulate the cholesterol we produce in response to the cholesterol we eat. If you have a high cholesterol diet, your body will just synthesize less cholesterol. So you could eat a high-cholesterol diet and it might increase your blood cholesterol by 2 or 3%. Then the question is how much should we actually worry about our cholesterol levels in our blood? Total cholesterol tells us nothing.

The only reason we measure our total cholesterol is because we've always measured our total cholesterol. We've known since the 1970's that it doesn't predict your risk of getting heart disease in part because a large portion of your total cholesterol is HDL – which is good for you. The higher your HDL is – the higher your total cholesterol is going to be. But if your HDL is high over 45 or over 60, then that means you are at a low-risk for heart disease. So then you get into this question about what we call the 'bad cholesterol' – LDL cholesterol. LDL is *not* cholesterol. LDL is the particle that carries the cholesterol. It's called LDL that stands for– low-density lipoprotein.

By 1977 to be precise, the medical research community knew that the cholesterol in the LDL is what they call a marginal predictor risk. The cholesterol in HDL was 4 times as good. HDL is increased by saturated fat and it's decreased by carbohydrates. So all you have to know is your good cholesterol goes up when you eat saturated fat and it goes down when you eat carbohydrates, and HDL is the single best predictor of heart disease risk.

LDL is a different story. It's what they call a marginal predictor for risk because it's not actually the LDL cholesterol that causes the heart disease. It's the form in which the LDL particle takes in the blood stream – 'small and dense' or 'large and fluffy.' The reason they say large and fluffy is because fluffy implies it's harmless and it indeed is.

When you eat saturated fat, your LDL tends to go from mostly 'small and dense' to mostly 'large and fluffy.' So, saturated fat appears to make LDL *less* capable of causing heart disease. When you eat a high-carb diet, your LDL goes from being 'large and fluffy' to 'small and dense.' Therefore, everything we've learned and I mean everything, since the 1970's tells us that saturated fat appears to be harmless, if not beneficial, and carbohydrates are what we should worry about. Basically instead of being bad for you, it's exactly the opposite – low-carb diets are great for your heart, and the low-fat diets seem to be bad for you?

Yeah! Everything I've learned reviewing the literature back to the 19th century says so. However, in the journalism business you always like to quote people from Harvard and places like that because it's Harvard. The problem is that their funding depends on them going with this conventional, low-fat diet wisdom; so they usually say that this low-carb stuff is a sham.

Is there a story as to how we came to believe that saturated fat, cholesterol would be bad for us?

In 1977, a Senate sub-committee run by George McGovern actually institutionalized the idea that all Americans should increase their carbohydrate consumption. So, until the 1960's we believed that carbs make you fat and now, the US government is telling us to eat more carbs. The famous Food Guide Pyramid is – the base of the pyramid is carbohydrates, meats up at the top – something we should eat sparingly if at all.

And lo and behold, this coincides with an obesity epidemic, and what I've been arguing for almost 16 years now, and the reason I am arguing is because the Assistant Director to the Office of Disease Prevention at NIH suggested this to me ten years ago – maybe it wasn't a coincidence that we started telling people to eat carbohydrates – lo and behold, they got fatter!

The politics were lagging behind the science. As the politicians kicked in to create this consensus that low-fat diets are healthy diets, the science had changed! Now the science is blaming carbohydrates and what you end up with is cognitive dissonance.

The doctor's – they weren't taught to question what they were told, doctors are taught to believe what their instructors tell them, so this whole sort of dogma got locked in and the science continued to change and people either just ignored it or they tried to somehow reconcile it. They came into this believing that 2 plus 2 is equal to 5, and the science started to show that no, no, no 2 plus 2 is actually equal to 4. But, by that time we had this consensus that 2 plus 2 is equal to 5, so what they said is okay well maybe 2 plus 2 is equal to 4.9.

Lots of studies throughout this period showed that men and women with high-saturated fat diets tended to *live longer* than men and women with low-saturated fat diets. Actually, for women in particular –

cholesterol has never predicted heart disease in women. So they're the last people who should be on low-fat diets, even though when I go to get coffee in my local bagel shop in New York invariably it's the women in the line who are ordering the low-fat cream cheese with their bagels.

I believed in the idea that saturated fat and cholesterol were killers unconditionally up until I started doing this research. It was so weird to see that the data *never* came round to support this idea. There was a big uproar in 2006, when this huge trial known as the Women's Health Initiative (WHI) published their results. WHI was a half billion dollar trial. They took 48,000 women and put 20,000 of them on a low-fat, low-saturated fat diet where they cut back on meat consumption, ate more fruits and vegetables and whole-grains. The other 28,000 got to eat just as they wanted. This low-fat diet had no effect on heart disease, no effect on cancer rates, and no effect on weight.

Since about 2000 physicians actually got interested in the 'Atkins Diet' – eating very low-carb, high-protein diets because they seemed to work so well. There's this one Doctor Eric Westman at Duke University, who told me that he had a patient who couldn't lose weight and said "I'm going on the Atkins Diet." His doctor said "It's going to kill you." The patient said, "I'm going to do it anyway" and he went on the Atkins Diet and he lost 40 pounds effortlessly. When the patient came back, the doctor checked his cholesterol profiles and *it had improved*. So this doctor was one of the few smart enough to say, "Well this goes against everything I know because the Atkins Diet is a high-saturated fat diet, so I'm going to study these diets."

Other groups in Philadelphia, in Boston, in Israel and California started doing studies where they compared Atkins Diets to American Heart Association type – low-fat, low-calorie — diets. What they found is not only did everybody lose more weight on the Atkins Diet even though they could eat as much as they wanted, they found that cholesterol profiles improved! Everything gets better: HDL goes up. Triglycerides go way down. Your glucose-tolerance improves. Your insulin levels go down. Even blood pressure gets better on these diets.

It was known in the 19th century by the German chemists who started the field of nutrition that carbohydrates cause water retention which increases blood pressure. So you get rid of the carbs in your diet and your blood pressure drops, as it should.

So has there ever been any data to say that eating a high-saturated fat diet is bad for your heart?

Never any *compelling* data. By that I mean a study that shows that it's the saturated fat and not the carbohydrates that actually cause heart disease. Another factor in all this is the metabolic syndrome. At the moment, the estimate is something like 40 million adults in the United States have this thing called metabolic syndrome. Metabolic syndrome is a cluster of metabolic abnormalities like high insulin levels, high blood sugar, and poor glucose tolerance (insulin resistance), very low HDL, and high tri-glycerides. The total LDL, the "bad cholesterol, is not necessarily high, and it's usually not high at all. It's usually completely normal, BUT their LDL comes predominantly in the form of what's called the *small dense LDL particles*. This is the form that seems to be particularly adept to causing Atherosclerosis and heart disease.

So if you actually look at the science circa 2009 as opposed to the primitive stuff we were doing in the 1970's, it tells you if you get a heart attack, you're going to get a heart attack because you've got this thing called metabolic syndrome. This thing called metabolic syndrome is actually caused by the carbohydrates in the diet not the saturated fat.

Everything in metabolic syndrome is made worse by carbohydrates particularly refined, easily digestible carbs and sugar is probably the worst – sugar and high fructose corn syrup.

So if you get a heart attack, why are you going to get a heart attack? Well you're overweight, your blood sugar isn't controlled well, and your HDL is low. (HDL has always been the single best predictor of heart disease, and HDL is ineffectively regulated by the carb content of the diet.) Carbohydrates regulate triglycerides. We know that the more carbs you eat – the higher your tri-glycerides and the lower your HDL, and that saturated fat if anything, raises HDL (your good cholesterol). *None of this is controversial.* What the Atkins Diet trials show is that if you replace the carbohydrates in your diet with saturated fat, everything in the metabolic syndrome gets better. The same is true for diabetics as well. If they replace carbs with saturated fat, their diabetes gets much better – sometimes they don't even need insulin anymore. The problem is *our beliefs didn't shift with the science.* If you look at the science today it says that the healthiest possible diet is a diet like Atkins or like South Beach – diets that restrict carbohydrates to very low levels.

Metabolic Syndrome - Some notes from our Symposium

A major disease entity that we all recognize now is metabolic syndrome. It is estimated now that approximately 40,000,000 adults in United States have metabolic syndrome. Metabolic syndrome is a cluster of metabolic abnormality such as high insulin levels, high blood sugar, and poor glucose tolerance or insulin resistance, very low HDL, high triglycerides. Also, extra weight around the middle and upper part of your body which is known as Central adiposity or the Apple shape are indicative of metabolic syndrome. Other risk factors include aging, hormonal changes, and lack of exercise.

People who have metabolic syndrome also have two other problems that can either cause the condition or make things worse - excessive blood clotting and increased levels of blood substances that are a sign of inflammatory response throughout the body.

Everything in metabolic syndrome is made worse by carbohydrates, particularly refined, easily digested carbs and sugars. Probably the worst-sugar is high fructose corn syrup.

What is interesting to me is if you replace carbohydrates with saturated fat, their diabetes gets much better and sometimes they don't use insulin ever again. Now the problem is our beliefs didn't shift with the science that we had. If you look at the science today, it says that the healthiest possible diet is a diet like Atkins or South Beach that restricts carbohydrates to very low levels. There's no such thing as an essential carbohydrate.

So as you take on your family and friends; as they look at your weight loss and admire what you've obtained and what you've accomplished, here's a little science that backs up everything we've talked about. Remember, you have come so far and this is not the time to quit. Now I've given you some major ammunition to get yourselves through the holiday season.

Last but not least, remember that Jesus is the reason for the season! Some of you need to remember where you were last year at this time. When you hear the carols, see all the decorations, and wake up Christmas morning to see what gifts are under the tree, remember, the greatest gift ever given to us was the birth of Jesus. Only he can change your life forever.

Blessings to all and Merry Christmas to The Weigh Station family and friends.

Chuck Shaffer, M.D.

Vegetable and Turkey Soup

Serves 8 to 10

Nourishing and delicious, this Italian-inspired soup packs a healthy dose of vitamins, minerals and fiber. Use whatever vegetables are in season and try a variety of ingredients to keep the recipe fresh. Make it on a Sunday afternoon so you can enjoy it all week long.

Ingredients:

- 20 ounces lean ground turkey
- 8 cups chicken or vegetable broth
- 3 ounces bacon
- 2 tbsp olive oil
- 1 small onion, finely diced
- 1/2 cup celery, finely sliced
- 1/2 cup orange peppers, diced
- 3 cloves garlic, minced
- 4 cups baby spinach or other dark leafy greens
- 1 cup fresh flat-leaf parsley, chopped
- 2 zucchini, trimmed, diced
- 1 (15 ounce) can roasted red peppers
- Salt and pepper to taste

Freshly grated Parmesan cheese



Directions:

In a pan over medium-high heat, cook the bacon until crisp. Remove it from pot and place it on paper towels to drain. Then add turkey and cook until brown. (set aside) Heat the olive oil and add onion, celery and peppers. Cook, stirring often, until the vegetables are softened, about 5 minutes. Add garlic and cook, stirring, for 1 to 2 minutes. Add zucchini, roasted peppers, spinach, parsley, turkey and broth. Reduce heat to medium-low and simmer for 20 minutes. Crumble the bacon and add it to the soup towards the end of the 20 minutes.

Season with salt and pepper. Serve hot garnished with freshly grated Parmesan cheese.

Eating Well While Traveling

Whether you're traveling for the holidays or for work related reasons, one thing is for sure, it can throw off a healthy diet. So how do we face the inevitable fast food restaurants and catered events without gaining weight? Let's find out!

First and foremost, if you know you are traveling, plan, plan, and plan! If you are taking a long car ride, pack a cooler with items such as string cheese, raw veggies or even some chicken strips. You want to make sure things are easy to eat with little mess. Apples are also great grab and go items and are simple to munch on while in the car too. If you are staying at a hotel, request a room with a fridge if possible. Also, try to book a hotel within walking distance to a grocery store. That way, if you are attending a conference you can simply walk to the store and pick up food items to keep you on track. You can bring them back to your hotel room and keep them in your fridge for later too. This way you can eat before heading to the conference and avoid eating the not so healthy options that are always present at catered events. Even if your room doesn't have a fridge, don't assume that all is lost. Call down to the hotel's concierge and ask if they have an extra mini fridge. I'll never forget a business trip to Vegas where I traveled with my one-year-old daughter. The fridge in our room was packed with weight sensitive snack and liquor items. Move them and a sensor would detect that the item was removed and that item would be charged to your account at a premium! The problem was, there was NO room for anything else and I needed to store my daughter's milk. Any Mom knows that breast milk is liquid gold and I was NOT going to compromise. I simply called down to the front desk and within minutes I had an extra fridge with plenty of room!

If you are flying, I recommend packing apples and nuts. I know for some people on the program nuts are off limits but I think in this case our physician's would be willing to make an exception. Portion them out ahead of time so you aren't eating too many. Beef jerky is also a good choice while traveling since it doesn't spoil. If you are traveling overseas, you may even consider packing a small cooler with items such as string cheese and chicken. Pack them with a baggie of ice and get rid of just the ice (not the baggie) just before going through security. Once you board the plane, ask the flight attendant for ice using the bag you had saved to hold the ice. You can refresh the ice every few hours as needed until you reach your destination. Remember too that the food inside the cooler will be fine for up to 2 hours without refrigeration, so don't worry if there is a short delay in your flight and you have to hang out for a little while once you are through security.

As you can see, eating well while traveling is possible. It does take some careful planning but the outcome is worth it. Wishing everyone happy travels where ever they go this holiday season!

-Tricia Foley, MS, RD