PRADER-WILLI SYNDROME BEATEN BY PALEO

CHILDHOOD OBESITY

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HOW TO EAT MORE VEGETABLES

LOREN CORDAIN, PH.D.
THE PALEO DIET HELPS CHILD BEAT PRADER-WILLI SYNDROME

Loren Cordain, Ph.D., Professor Emeritus

In response to our recent article titled “The Hidden Cost of Childhood Obesity,” Lara described how The Paleo Diet has helped her family. With the hope of helping others, we’d like to share her experience with our readers. Thank you, Lara, for describing the importance of nutrition in helping with both disease and vigor. Here’s Lara’s story:

“My whole family eats the paleo way. My son is 5 years old and has Prader-Willi Syndrome. The paleodiet helps him to beat his genetic ‘destiny.’ He is lean and active and does not have the constant hunger that is characteristic of the syndrome.”

One of the symptoms of Prader-Willi Syndrome (PWS) is a chronic feeling of hunger that can lead to excessive eating and life-threatening obesity, according to the USA Prader-Willi Syndrome Association. The association reports that one in 12,000 to 15,000 people are estimated to have PWS, and it is the most common identified genetic cause of obesity.

Long-term consumption of high glycemic-load foods has been associated with increased risk of obesity. By emphasizing low glycemic-load foods, the Paleo Diet helps to optimize body weight. The correct balance of carbohydrate, protein and fat that the diet provides also improves blood-lipid profiles, helps you to feel fuller, and enables you to burn more calories.

“My daughters also eat the paleo way at home. They are aged 11 and 8 and are competitive gymnasts. We started on the paleodiet a couple of years ago and it was fascinating to watch my oldest daughter’s body change. She became extraordinarily strong and muscular and her stamina far exceeds those of the other girls on the team.”

The Paleo Diet replaces excess carbohydrate consumption with muscle-building lean proteins, and alkalinity- enhancing, nutrient-dense fruits and vegetables. These foods provide antioxidant vitamins, minerals and phytochemicals to fuel muscle growth and boost immune function.

The diet also uses animal protein (the richest source of branch chain amino acids) to build and repair muscle. To prevent muscle protein loss, the Paleo Diet helps to maintain a net base balance. After digestion, foods release acidic or basic substances into the circulatory system. The Paleo Diet emulates our hunter-gatherer ancestors’ reliance on fruits and vegetables to provide a net-base-producing diet.

“I always insist that she have a protein snack before she goes to gymnastics practice. One day she went to gymnastics practice from a teammate’s house. The other mom gave the girls a cookie and lemonade for the snack. My daughter was shocked to discover that she couldn’t make it though practice. She found herself sitting on the side tired like the other girls on the team. She was used to being the girl who always had enough energy for another rep.”

By emphasizing low-glycemic foods, the Paleo Diet helps to keep insulin levels steady - so you don’t experience an energy crash, just increased stamina and improved mental focus.

“My daughters really like my smoothies. They are athletic and lean and need more calories than their brother (who has PWS). Most nights,
after he is in bed, I make them a smoothie with fruit and coconut milk and honey and ice. They claim it is better than most ice cream and I think it helps to cut back on any sense of deprivation that they may have from our diet.

That said, we do joke about the fact that when my middle child is away from the family she does a total carb load. I don’t worry about it that much because she is healthy and I know that most of the time she eats the way our family eats. Plus, I am sure that, like my oldest daughter, at some point she will notice the connection between what she eats and her performance and will modify her choices accordingly.

I cannot tell you how many families (including children) have been converted to this way of eating by watching our family and having dinner at our place. I truly believe that the Paleo Diet is the best-kept secret in health and nutrition. I am doing my best, though, to get the word out about it.”

Lara

Thank you again, Lara, and best wishes to you and your family for long, healthful, and vigorous lives.

THE SIMPLEST ROAST TURKEY

Nell Stephenson, BS USC EXSC

Sometimes the simplest things are the best. While there are times when an elaborately prepared meal is in order, most people struggle to find time to prepare ANY dinner, let alone one requiring hours of prep time.

How about a recipe that calls for three things? Yes—three. Those are fresh, wild turkey bone-in (less pricey than the boneless counterpart), skin-on turkey breast (the skin is removed before serving, but keeps the moisture in the meat while it cooks), black or white peppercorn and some olive oil.

Start by heating a cast iron skillet with olive oil over a high flame, and then sear the turkey breast for a few minutes on each side until nicely browned. To finish, place the turkey in a 450-degree oven for 30 minutes, and check the internal temperature to ensure it reaches 160 degrees F for safety. You can let the turkey sit outside of the oven for 15 minutes before serving.

While you wait, you’ve got adequate time to flash steam some kale, and literally throw together a fresh green salad with strawberries, raw walnuts, olives, shredded carrot and yellow bell pepper (remember the colors of the rainbow theme).

Voila—a simple, yet absolutely delicious, meal in no time at all!
THE HIDDEN COST OF CHILDHOOD OBESITY

Wiley Long, MS

That all-too-familiar saying “children can be cruel” sums up the prejudice, discrimination, and teasing that overweight or obese children endure. This can lead to depression, alienation, anger management issues and reduced self-esteem. As life-changing as all that may be, it only represents the “tip of the iceberg” when it comes to the hidden cost of childhood obesity.

One child in five is estimated to be overweight in the United States.\(^1\) The National Institutes of Health reported that childhood obesity doubled during the past 20 to 30 years among all age, race and gender groups.\(^1\) According to a new study, by the tender age of 7, being obese may put a child at risk of future heart disease and stroke, even in the absence of high blood pressure.\(^2\) These increased risks are all the more insidious because the children in this study were entirely healthy otherwise.\(^2\)

In addition, type 2 diabetes (formerly known as adult-onset diabetes) now afflicts obese children as well.\(^1\) Plus, childhood obesity also brings with it the risk of orthopedic problems, liver disease and asthma.\(^1\) Interrupted breathing during sleep, called sleep apnea, is one of the most severe problems facing obese children, and this can expand to learning and memory problems,\(^1\) as well. An overwhelming array of problems may follow obese children into adulthood because overweight adolescents are estimated to have a 70% chance of being overweight or obese as adults.\(^1\)

Still, obesity is not our evolutionary heritage. In America today, typically more than 70% of the dietary calories come from foods that were rarely, if ever, eaten by our Paleolithic ancestors. Consuming a diet that modern humans are not genetically adapted to eat has led to epidemic levels of obesity along with cardiovascular disease, cancer, diabetes, autoimmune disease, osteoporosis, arthritis, acne, gastrointestinal disease, and more.

By emulating the diet that humans evolved to eat for 99% of their history, the Paleo Diet focuses on low-glycemic foods that make weight loss easy while improving overall health. Long-term consumption of high-glycemic foods causes insulin resistance, which is the main factor underlying most degenerative disease. Avoiding these high-glycemic foods is one of the most important things you can do to maintain ideal weight, to greatly improve your chance for a longer, disease-free life, and to enjoy greater health and activity in your later years.

“I have struggled with my weight for years...I take medication for high blood pressure and GERD. I have on-and-off eczema...and seem to have constant bloating and stomach issues...I started having swelling in my legs and ankles. I purchased...your book and started in right away...The eczema cleared up...I’ve lost inches already and fit in clothes I haven’t fit into in over a year. I stopped taking the diuretic and the swelling in my legs and ankles is already totally gone...It’s the easiest, most satisfying diet I have ever followed.”

Janice H.
Another way that the Paleo Diet facilitates weight loss is by maintaining the correct balance of calories from carbohydrate, protein, and fat. This serves to improve blood-lipid profiles, helps you to feel fuller, and helps to burn more calories. In typical U.S. diets, about 52 percent of daily energy is from carbohydrates, 33 percent is from fat, and 15 percent is from protein. Our hunter-gatherer ancestors, however, received a significantly higher amount of calories from protein (between 19 and 35 percent), and less from carbohydrates (between 22 and 40 percent).

“Within six weeks, I was down 15, to 150 pounds...my gut vanished, leaving me with a waistline I haven’t seen since college: down from 34 when I first went mostly Paleo four months ago...My cholesterol after three months on the diet was a total of 153, with HDL at 60 and LDL at 76. By most measures, that’s fantastic.”
Ross Werland
Chicago Tribune Staff Reporter

Thanks to its focus on nutrient dense foods, the Paleo Diet avoids refined grain, sugar, and vegetable oil to help you maintain optimal weight with high-level nutrition. Although vegetable oil and refined sugar offer few vitamins, minerals, and phytochemicals, they contribute more than 36 percent of the energy in the average American diet.

“I am probably your biggest fan. About half of the new patients to my clinic know I am a strong proponent of The Paleo Diet...and about one third have either read or have just purchased your book. It truly is the best tool I have to help my patients.”
Lane Sebring, M.D.

Doctor Sebring also described how a patient, who couldn’t afford medication, defeated health problems and lost weight with only the Paleo Diet:

“I told him to read The Paleo Diet...At follow up, he had lost about 4# and his blood glucose was 79 and bp was 112/72 so I praised them both for their good work. The wife then said almost apologetically, 'Dr. Sebring, I'm sorry but we just couldn't afford the prescription you gave us, he hasn't taken any pills at all in three weeks.' He weighs 178 lbs. now and he is of course no longer diabetic or hypertensive and you couldn't get him off the diet. I just wanted to let you know some of the good you have done.”
Lane Sebring, M.D.

Children do fine on the Paleo Diet. My six year-old son Wiley IV, of course, eats this way. He doesn’t expect bread, pasta, or cereal to be part of the menu, and you should see the size of bun-less hamburger he can eat! I’d be curious to know what kind of challenges, and tips, you might have on feeding kids the Paleo Diet.

For sources see References: Section I
BUY WHOLE MEAT

_Nell Stephenson, BS USC EXSC_

One simple way to save a bundle on your meat is to buy it whole. No, I’m not suggesting you store a side of beef in your fridge, but for smaller animals, it pays to buy them intact.

For example, while it may seem easier to buy a package of boneless, skinless chicken breast, you’ll notice that it’s much more costly to do so. You’ll save if you buy a whole chicken, or even just a pack of bone-in, skin-on chicken. Incidentally, the latter provides more flavor than the boneless skinless variety does when cooking, so you’ll benefit there on two counts! Use this approach on any meat, fish or poultry where it makes sense to do so.

Not comfortable filleting your own fish or carving that steak? Check with the fishmonger or butcher in your local grocery. I’ve found that some stores offer free classes teaching basic skills such as “how to fillet a fish” or “how to break down a turkey.”

Another great option is to look into what, if any, local farmers in your area might be a source of meat for you. Some smaller scale farms will sell directly to the consumer; you’ll not only save dollars by not paying for packaging and brand names, but you’ll also support your local economy and environment!

Enjoy!

LEGUME CONFUSION

Last week, The Paleo Diet Update reported on the health implications of the increased consumption of legumes. As a follow up to that report, we’d like to share Clare’s concern below regarding why legumes pose a greater health risk than other seasonal produce.

“The argument against eating legumes is a little confusing to me, as it is stated in this newsletter: ‘Because legumes are only available seasonally, they would not have provided a staple food source until the development of agriculture. This means that humans would not have evolved the ability to cope with the dark side of legumes.

But if that is the reason, then what about all the other seasonal fruits and vegetables that we are told are ok on the Paleo diet?
I am confused by this reasoning that is only being applied to legumes.”

Clare Ross

Hi Clare,

Not all commonly consumed fruits and vegetables necessarily contain toxic secondary compounds, whereas virtually all legumes do and their toxicity is dose dependent. Hence, hunter-gatherers who may have consumed legumes would have only received the toxic dose when the foods were seasonally available. For most of the year, there would have been no toxic effect from these foods.

We believe that because legumes promote increased intestinal permeability, they allow a substance derived from gram-negative gut bacteria (lipopolysaccharide or LPS) to enter circulation and elicit low-level inflammation. When this inflammation occurs all-year-round for 20, 30 or more years, we believe it may promote many chronic diseases including heart disease, cancer and autoimmune diseases. Hence periodic exposure to LPS likely elicits differing effects than chronic, lifetime exposure.

Cordially,

Loren Cordain, Ph.D., Professor Emeritus

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INFLAMMATION, DISEASE AND FATTY ACIDS

Maelán Fontes Villalba, MS Ph.D.

The complex nature of inflammation makes it central both to healing and harming. It is the helpful response to harmful stimuli (such as pathogens, damaged cells, or irritants) that attempts to remove injurious stimuli and begin healing. Without inflammation, wounds and infections wouldn't heal.1-3

However, unchecked inflammation can progress to numerous diseases. A wide body of scientific evidence has shown that most, if not all, diseases have an inflammatory background. This includes insulin resistance,4-6 type 2 diabetes,5-7 obesity,4, 8-10 dyslipidemia,4 atherosclerosis,4, 11, 12 essential hypertension,4, 13-15 coronary heart disease,4, 15, 16 erectile dysfunction,17 acne,18, 19 cancer,20, 21 autoimmune diseases,20-24 asthma,25-27 allergies,25-27 Alzheimer’s disease,28-30 schizophrenia,28-30 major depression,28-30 anxiety,28-30 and mood disorders.28-30

Both the initiation and resolution of inflammation rely on certain fatty acids.1-3 Essential fatty acids (EFA) cannot be produced by the human metabolism, so we must obtain them from the food we eat.11, 13, 28 There are two families of EFA: the omega-6 family and the omega-3 family. The omega-6 EFA is termed linoleic acid (LA), and the omega-3 EFA is termed alpha linolenic acid (ALA).

These EFA’s are the “parent” source of the long-chain polyunsaturated fatty acids (LCPUFA) that are produced by a group of enzymes called desaturases and elongases.11, 28, 31, 32 The omega-6 LCPUFA is termed arachidonic acid (AA), and the omega-3 LCPUFA’s are termed eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).

The parent EFA’s do not have the capacity to initiate and resolve inflammation. Instead, it is the long-chain PUFAs that are essential for both the initiation and resolution phase of inflammation to occur.1-3, 24, 33-37

However, humans have a very limited capacity to convert omega-6 and omega-3 essential fatty acids to the long-chain PUFAs.11, 28, 31, 32, 45-48 In addition, many dietary factors can further inhibit this process.11, 28 Therefore, it is essential to obtain LCPUFAs from your diet.11, 29, 31, 32, 45-58
Sources of preformed AA, DHA and EPA include fish, brain, liver and muscle from wild or grass-fed animals. Grass-fed animals have better LA/AA than grain-fed animals because grains are rich in LA omega-6. LA is an inflammatory fat, whereas AA has a dual role of both initiation and resolution of inflammation through lipoxins.

I don't think AA supplementation is needed, though. Just reduce the amount of LA from vegetable oils and try to eat the best meat available. The Paleo Diet will provide the cofactors (vitamin B3 and B6, magnesium, zinc, and vitamin C) that activate the enzymes that convert LA into AA. The Paleo Diet also avoids the factors contributing to the inhibition of those enzymes, such as alcohol, high glycemic load foods and high cholesterol promoting foods (a low LCPUFA/saturated fats ratio diet).

Next time, we’ll conclude our analysis of the inflammatory background of many diseases by discussing how the Paleo Diet enables the resolution phase of inflammation to occur - a process that is critical to good health. We’ll also show you the simplest way to prepare roast turkey.

For sources see References: Section II

TEN WAYS TO GET MORE VEGGIES!

Nell Stephenson, BS USC EXSC

Generally speaking, I find most of my clients have an easier time eating fruit throughout the day, and have more of a challenge eating their veggies. This is partly due to being conditioned, as most of us Americans are, to think that breakfast foods don't include vegetables, and just feature a host of grain and dairy-based processed items.

Your body doesn't care if it’s 7 a.m. or 5 p.m., so there's never a bad time for broccoli! Well, except, perhaps, if you're just about to engage in a bout of strenuous exercise, but you get the point.

Try these tips to incorporate more veggies into your, and your family's, daily diet:

*Throw some spinach into the morning's scrambled eggs.

*If you have a juicer, use it to focus on juicing veggies, rather than just fruit. (Keep in mind, I'm NOT suggesting to juice ALL your veggies, as that would result in missing out on all the fiber that vegetables have to offer. This is just something to use as 'food for thought.' You'll find that a juice made predominantly of green
veggies and with a hint of fruit, like apple for sweetness, will create a tasty juice that even picky eaters enjoy. It’s a great alternative to sugary orange juice!

*Add easy-to-eat veggies (think COLOR), like carrot and celery sticks and sliced bell pepper (unless you’re following the autoimmune plan), to your kids and spouse’s lunch, as well as your own.

*Serve lunch entrees on a bed of leafy dark green veggies that you’ve sautéed, and let the veggies take the place of bread in a sandwich!

*Bake thinly sliced veggies, such as eggplant (if you’re not following the autoimmune plan), zucchini or carrot at a low temperature to dehydrate them (or use a dehydrator) in lieu of crackers or chips, and enjoy this with homemade salsa or guacamole. Remember that while cooking does remove SOME of the nutrients from food, eating some veggies in this form is still far better than snacking on potato chips, as long as you’re eating fresh, raw veggies at other times.

*Use different types of veggies as a base for healthy sauces you might’ve used on pasta in the past, such as a cheese-free pesto (basil, pine-nuts, walnuts, olive oil, lemon and pepper), a homemade marinara (tomatoes are great if you’re not following the autoimmune plan) or good old olive oil and garlic. This works great on spaghetti-squash, or finely chopped leafy greens.

*Keep steamed, ready to eat veggies on hand in the fridge at all times so that when you’re cooking dinner, or the kids are feeling snacky or you want something easy to re-heat as a part of a meal, you won’t have long to wait. I often have a large bowl of steamed broccoli ready in the fridge, for example.

*Use vegetables as edible serving containers. Remember stuffed bell peppers? If you’re not following the autoimmune plan, sauté lean ground turkey with your favorite spices and place into a bell pepper. Heat (or not) and let the family enjoy eating the veggie dish! Another example is using Bibb or butter lettuce in lieu of a grain-based tortilla or wrap, served with shredded chicken breast and an Asian themed ginger, sesame, garlic sauce.

*Add your favorite veggies to a salad. Remember, the more color and variety you include, the better nutritionally balanced a meal will be.

*Finally, don’t over think it. Keep it simple, and just eat veggies, any time. You can eat a greater volume of veggies and get fewer calories than in many other snacks. See how many ways you can incorporate eating veggies at different times of the day!

Enjoy!
PRIMAL IN THE KITCHEN

PALEO PESTO PASTA

1 cup loosely packed basil leaves, stems removed and discarded
2 Tb. extra virgin olive oil
1 Tb. flaxseed oil
1 Tb. walnut oil
1 Tb freshly squeezed lemon juice
2 garlic cloves
Freshly ground black pepper to taste
1 large spaghetti squash, 3-4 lbs.

Preheat oven to 350 degrees.
Slice the spaghetti squash in half lengthwise and use a spoon to scrape out all the innards/seedy area. Place on a baking sheet and bake for 45 minutes.

Combine basil leaves, oils, lemon juice, and garlic in a food processor. Blend until thoroughly combined. Add freshly ground black pepper.

Once the squash is done baking remove from oven, and using a fork scrape out the long, noodle like strands into a bowl. Pour the pesto mixture over top and garnish with a piece of basil.

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REFERENCES: SECTION I


REFERENCES: SECTION II


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