PALEO PEANUT PARTICULARS

ADVERSE EFFECTS OF ESTROGEN AND MILK

Q&A WITH IRONMAN JAMIE WHYTE

CHOCOLATE AND CACAO

LOREN CORDAIN, PH.D.
ADVERSE HEALTH EFFECTS OF ESTROGEN IN MILK

Cow milk isn't simply an innocuous high calcium food that builds strong bones, but rather is a concoction of body altering hormones, enzymes and proactive peptides whose wide ranging effects promote cardiovascular disease, insulin resistance, cancers, allergy and autoimmune diseases. A dangerous hormone in milk which operates in tandem with other bovine hormones, proteins and peptides to promote cancer is estrogen. Cow milk is chock full of the female hormone, estrogen. It is present in bovine milk in a variety of forms including estrone, estradiol-17, estriol, estrone sulfate and progesterone.

MILK IT FOR ALL IT’S WORTH

Modern dairy farmers maximize milk production from their cows. The formula is simple: Dairy farmers are in the money business. The more milk they can get from a single cow in a year, the more money they stand to make.

Female cows, like all mammals only produce milk during the latter half of pregnancy and during the suckling period. So the trick for modern dairy farmers is to get cows to produce high amounts of milk during the early months of pregnancy when milk is normally not produced. Dairy farmers achieve this goal by artificially inseminating cows within three months after they have just given birth. In effect, these unfortunate cows become pregnant once again while they are still nursing the young of their previous birth. This totally contrived interference by humans causes the mother cow to produce milk 305 days out of the year. From an economic perspective, this strategy makes perfect sense – more milk means more money. From a dietary and health perspective, this practice is disastrous for us because it strikingly increases the estrogen content in the milk we drink.

MILK PAIL TO PHARMACEUTICAL

The major form of estrogen in cow's milk is estrone sulfate which just so happens to be the most frequently prescribed hormone replacement therapy for menopausal women. This pharmaceutical form of estrogen has high oral bioactivity – meaning that when you ingest it in pill form, it readily gets into your bloodstream. There is no reason to believe that estrone sulfate from cow’s milk acts any differently.

So, whether you are a man, woman, or child, if you drink milk and eat other dairy products, your blood concentration of female hormones will consequently be higher. In short, this is not good. Why? If you are a woman, elevated blood estrogen and its metabolites increase your lifetime risk for breast and ovarian cancers. For men, milk’s added estrogen may increase your risk for prostate and testicular cancer.

When you can prescribe optimal health and well-being sans risk, why gamble? Strike dairy from your holiday menu, help raise awareness about the related risks of estrogen levels, and of course, enjoy all the healthful benefits of the Paleo lifestyle.

For sources see References: Section I

JAMIE WHYTE, IRONMAN TRIATHLETE ASKS...

Q: I am a professional Ironman athlete and currently reading The Paleo Diet for Athletes. The importance of branch chain amino acids (BCAA) is stressed for endurance athletes and while there is mention of using
protein supplements to up the calorie intake from protein, there is never any mention of using a BCAA supplement. Does a BCAA supplement ensure adequate intake or can these BCAA demands be met via regular servings of protein power, eggs, meat, and seafood?

A: When you are consuming a contemporary Paleo Diet high in animal proteins, which are consumed at every meal including lean meats, poultry, fish, seafood, and eggs, there really is no need to consume supplemental branch chain amino acids (BCAA) [leucine, isoleucine, valine].

Egg whites, meats and fish are concentrated food sources of BCAA. Although whey also contains high levels of BCAA, it is manufactured from cow milk protein and maintains a number of nutritional characteristics which are undesirable. These same characteristics are apparent in soy proteins found in legumes.

STAVE OFF HUNGER

SCRUMPTIOUS, SATIATED SEASON

The Paleo Diet is a high protein diet and promotes the release of the gut hormone, PYY. This hormone causes appetite centers, the hypothalamus, in the brain to increase the feeling of fullness both during and after meals.

The Paleo Diet is also a low glycemic index diet that replaces sugary, sticky sweet foods like that syrupy pecan pie with vanilla ice cream that donned your holiday dessert menu last year, with healthful low glycemic index fruits like blueberries, black berries, raspberries, and strawberries.

Keep it light, keep it fresh, ringing in the New Year with a medley of fruit and cheer!

PALEO PEANUT PARTICULARS

WHY PEANUT OIL AND PEANUTS WRONG PALEO?

Most nutritional experts would tell us that they are heart healthy foods because they contain little saturated fat and most of their fat is made up of blood cholesterol lowering monounsaturated and polyunsaturated fats. Hence, on the surface, you might think that peanut oil would probably be helpful in preventing the artery clogging process (atherosclerosis) that underlies heart disease. Your thoughts were not much different from those of nutritional scientists – that is until they actually tested peanuts and peanut oil in laboratory animals.

Starting in the 1960’s and continuing into the 1980’s scientists unexpectedly found peanut oil to be highly atherogenic, causing arterial plaques to form in rabbits, rats and primates \(^1,2,3,4,5\) – only a single study showed otherwise.\(^6\) Peanut oil was found to be so atherogenic that it continues to be routinely fed to rabbits to
produce atherosclerosis to study the disease itself.\(^7\)

Initially, it was unclear how a seemingly healthful oil could be so toxic in such a wide variety of animals. Dr. David Kritchevsky and co-workers at the Wistar Institute in Philadelphia were able to show with a series of experiments that peanut oil lectin (PNA) was most likely responsible for its artery clogging properties.\(^8\) Lectins are large protein molecules and most scientists had presumed that digestive enzymes in the gut would degrade it into its component amino acids. Consequently, it was assumed that the intact lectin molecule would not be able to get into the bloodstream to do its dirty work. But they were wrong.

It turned out that lectins were highly resistant to the gut’s protein shearing enzymes. An experiment conducted by Dr. Wang and colleagues and published in the prestigious medical journal Lancet revealed that PNA got into the bloodstream intact in as little 1-4 hours after subjects ate a handful of roasted, salted peanuts.\(^9\) Even though the concentrations of PNA in the subject’s blood were quite low, they were still at concentrations known to cause atherosclerosis in experimental animals.\(^7\) Lectins are a lot like super glue – it doesn’t take much. Because these proteins contain carbohydrates, they can bind to a wide variety of cells in the body, including the cells lining the arteries. And indeed, it was found that PNA did its damage to the arteries by binding to a specific sugar receptor.\(^7\)

So, as you’re getting your Thanksgiving menus together, the practical point here is to stay away from both peanuts and peanut oil. There are better, healthful options.

For sources see References: Section II

---

**WHAT’S YOUR SLEEP NUMBER?**

**SLEEPLESS CYCLES**

Rather than asking “What’s Your Sleep Number?” perhaps we should be asking “What’s Inhibiting Your Sleep Cycle?” We’re all after deep sleep and restful nights, but the mattress plays but one role.

Most people know that alcohol consumption immediately prior to bedtime is not a good thing because it disrupts sleep or makes for poor sleep. However, few people including many Paleo Dieters, who still include salty foods or sea salt in their diet, are aware that salt, like alcoholic beverages also is harmful to sleep.\(^1\)

Even sleep experts and scientists who study sleep are unaware of salt’s adverse effect upon sleep.\(^1\) Like alcohol, salt inhibits melatonin production in the brain’s pineal gland. Nocturnal rises in melatonin promote good sleep.\(^2,3,4,5\)

So, if you enjoy an occasional glass of wine with dinner, do so a few hours before going to bed, and get the salt out of your diet to ensure a good night’s sleep.

For sources see References: Section III
LISTEN TO YOUR BODY!

If a certain food seems to be problematic, eliminate it and carefully monitor your symptoms. If you have autoimmune disease, a few supplements may be helpful including vitamin D (2,000 to 5,000 IU of D3 per day), fish oil (1,200 mg of both EPA and DHA per day) and a probiotic supplement. Be careful with dose and try not to use a dairy based source.

FATTY BRAIN, FAT CHANCE

A fat is actually an acylglycerol or an acyl group (fatty acid) attached to an alcohol (glycerol) via an ester bond. Fatty acids attached to phospholipid molecules are not fats (triglycerides or storage fats), but are structural fatty acid compounds found primarily in the membranes of cells. Brain and nervous tissue are rich sources of phospholipids, hence the long chain fatty acids of both n6 and n3 categories. However little or no triglyceride (storage fat) is found in the brain.\(^1,2,3,4\)

Liver and other cells tend not to metabolize long chain fatty acids, but rather reincorporate them in cell membranes for structural purposes or for the production of eicosanoids (localized hormones). In contrast, dietary fats or triglycerides, are preferentially used for energy (ATP) production in cells or are stored in adipocytes (fat cells).

For sources see References: Section IV

CHOCOLATE BAR

CACAO CRUNCH TIME

I am often asked what percentage of cacao makes up the typical chocolate bar and whether you can justify eating it by the 85:15 rule. Milk chocolate candy typically contains seven ingredients:

- Cacao paste
- Cocoa butter
- Sugar, usually sucrose
- Non-fat milk solids
- Milk fat
- An emulsifier, usually lecithin
- Flavoring, usually vanilla

Cacao paste is derived from the ground core (nibs) of cacao seeds, Theobroma cacao, whereas cocoa butter is the fat extracted from cacao seeds. Generally, the lower the percentage of cacao paste and cocoa butter in the formulation of milk chocolate candy, the higher the percentage of sugar and/or non-fat milk solids and milk fat. Hence, the higher percentages of cacao paste and cocoa butter typically translate to a slightly lower sugar content.

To my way of thinking, the cacao breakdown doesn’t really matter. If you want to occasionally eat a piece of chocolate candy and chalk it up to the 85:15 rule, do it. Just don’t get into the habit of rewarding yourself daily with chocolate. Instead, try to replace chocolate with a big bowl of fresh berries or juicy melon for great taste, nutrition, and best yet, guilt free.
SHRIMP SCRAMBLE

1 Tbs olive oil
1/4 yellow onion, minced
4 omega-3 eggs
1 cup small cooked shrimp
1 t. minced fresh dill
1 t. dried basil
2 cooked artichoke hearts, fresh or canned (packed in water)

Heat oil in an 11 inch nonstick pan over medium flame. Add onion and sauté until tender, about five minutes. In a medium bowl, beat eggs until frothy. Pour into pan with sautéed onions. Add shrimp, dill, and basil and mix thoroughly until eggs are wet but not completely cooked. Stir in artichoke hearts and finish cooking.

Enjoy with a side of fresh melon and you’re off to a great start to your day!
REFERENCES: SECTION I


REFERENCES: SECTION II


REFERENCES: SECTION III


4. Troiani ME, Reiter RJ, Vaughan MK, Gonzalez-Brito A, Herbert DC.
The depression in rat pineal melatonin production after saline injection at night may be elicited by corticosterone. Brain Res. 1988 May 31;450(1-2):18-24.


REFERENCES: SECTION IV


