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RATIONAL EVIDENCE-BASED COMMENT FOR THE GENERAL PUBLIC & HEALTH PROFESSIONALS. WE SAY EXACTLY WHAT WE THINK

Letter: Cruciferous Overload – Dave Parrish. **Briefing:** Limits to Protein Intake. **Ancestral Food Fetishes:** Food Taboos. **Food Ideas:** Send us your Recipes! **News Shorts:** Check your Risk of Dementia; Forager Lifestyle slows Brain Ageing; skin enzymes quench Eczema. **Human Behavior:** Assassinating Bullies. **Hints:** Morning Protein Builds Muscle; Lifestyle to Reverse Ageing. **Ancestral Physical Activity:** High Intensity Aerobic Exercise.

Letter

From Dave Parrish, N Carolina, USA

Cruciferous Overload

Slimline Dave: <https://bit.ly/2UuEt8Y>



I have been eating based on the diet in *Paleo in a Nutshell* [1] for years now. Overall I think the diet is fantastic! However, I think there should be warnings to not overdo cruciferous vegetables.

I had been getting a form of psoriasis in my fingers for 2 years and blood tests indicated an autoimmune issue. My fingers seem to be improving after cutting out Brussels sprouts, broccoli, cauliflower and radish. I was eating pounds of Brussels sprouts a day!

I only have a little flakiness on my fingers remaining and I plan to include cruciferous vegetables again in my diet at modest amounts. I want you to be aware of these issues as I was totally unaware and it was causing concern that I might eventually have deformed hands!

My View? “Pounds of Brussels sprouts a day”! Yes, that is overdoing a good thing.

Rightly, cruciferous vegetables are regarded as ‘healthful’ in that they contain phytochemicals like glucosinolate which are linked with cancer-fighting and other beneficial outcomes.

However, these phytochemicals in excess are harmful. Overconsumption affects the thyroid in particular. See: **See: Thyroid: Plant Antagonists**, [Oct 2008](#) [2]; **Raw Cabbage: Pros & Cons**, [Jun 2009](#) [3]. > p 3

Briefing

Limits to Protein Intake

[Last month](#), in **High Lean Protein Intake Sickness**, we talked about how an excess intake of lean protein caused ‘rabbit starvation syndrome’.

It is so-called because rabbit meat is extremely lean and Roman legions suffered what amounts to protein poisoning if they lived (as happened) exclusively for a while on rabbit meat.

In the recent past this syndrome typically affected hunters and explorers (like Lewis & Clark) who lived exclusively on very lean meat like caribou and venison.

The problem lies in the fact that protein has to be processed (‘deaminated’) by the liver and the liver can become overwhelmed by excess amounts of protein.

A reasonable human (and forager) intake is between 0.8 g and 1.2 g per kg weight per day (1.7 g and 2.6 g per pound weight). See: **Protein in Focus**, [Jan 2016](#) [4].

That amounts to about 80 g for a person weighing 80 kg (176 pounds, 12 stone 8 lb).

This is well within the liver’s ability to process around 300 grams per day for an 80 kg person.

Secondly, for the body to safely metabolise proteins, it needs a certain minimum of carbohydrate to take part in the chemical reaction known as “anaplerosis”. Without enough of it, you actually lose muscle.

Note that when we speak of “carbohydrates”, these are salads, fruits and vegetables. Sugars and starches are not needed!

Finally there is the role of fat. In the 1900s the Arctic explorer > p 4

Ancestral Food Fetishes

Food Taboos



For many centuries, practising Jews have considered finless and scaleless fish like shark, ray and catfish as non-kosher. However, archaeological investigations in Israel and Sinai have discovered that the peoples from 1550 BC to AD 640 consumed such seafood in abundance [5].

Why and when did such foods become taboo? The article is unable to cast any light. But this is the same in just about every culture one looks at, including hunter-gatherers. Taboos come and go without any rhyme or reason.

The very word ‘Taboo’ is a Polynesian word but it is extremely useful for any culture on the planet. For sure, hunter-gatherers, they have their share too.

For the !Kung San, vultures, dogs, lions, and hyenas are taboo [6]. Kori bustard [a bird] and tortoise are taboo except for infants and the elderly.

For the Tasmanians of Australia, fish became taboo 3,800 years ago and no one knows why [7].

For the Hadza, certain parts of large animals can only be eaten by a male who has successfully made his first kill [8]. Women and children are forbidden from even seeing such a man eating this meat.

My View? Food taboos are everywhere on Earth and > p 4

Food Ideas

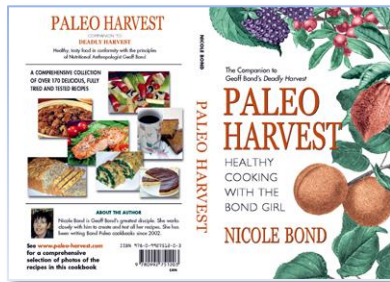
Send us your Recipes!

We would love to hear from readers with their food ideas. Let us know your Paleo-conforming recipes! We would be delighted to publish them, crediting of course, the author.

Contact: admin@naturaleater.com

In the meantime, check out Nicole's latest cookbook, Paleo Harvest:

www.paleo-harvest.com



News Shorts

Check your risk of Dementia

An online tool takes account of age, weight and lifestyle to give users a percentage risk of them developing condition in the next five years

The site, projectbiglife.ca/dementia, is based on survey results from more than 75,000 Canadians.

The factors it takes into account are: age; smoking status, alcohol consumption, physical activity, stress, diet, sense of belonging, ethnicity, immigration status, socioeconomic status of the neighbourhood, education, activities where assistance is needed, marital status, number of languages spoken and health conditions.

My View? This site is to be commended for highlighting the fact that dementia, and notably Alzheimer's, are lifestyle diseases. In other words, it is in our power to live in such a way as to avoid ever getting them.

However, they then spoil the message by marking you down if you are not a Canadian citizen! There are also other factors you cannot do anything about, such as ethnicity and educational status.

So have fun taking the test but take the result with a pinch of salt. For me, it gave me an 11% chance of developing dementia in the next five

years – and suggested that I reduce my consumption of alcohol. Fat chance!

Forager Lifestyle Slows Brain Ageing

The Tsimane indigenous people of the Bolivian Amazon experience less brain atrophy than their American and European peers. The decrease in their brain volumes with age is 70% slower than in Western populations [9]. Accelerated brain volume loss can be a sign of dementia.

Say the researchers: "The Tsimane stand out not only in terms of heart health but brain health as well. The findings suggest interventions to improve brain health."

My View? We have come across the Tsimane several times, where their healthy forager lifestyle has been lauded. See: **Amazon Indians: Healthy Arteries**, [May 2017](#) [10].

The Tsimane are hunter/gardeners (go figure) but are already losing their great lifestyle to the temptations of the 'demographic transition' to modern ways of life.

Skin Enzymes quench Eczema

Our skin is constantly exposed to viruses, bacteria and fungi, but they provoke little or no response from our skin. But our skin is supposed to monitor and protect us from external dangers. Why is it not constantly alarmed and inflamed?

According to researchers two enzymes in the skin called 'HDACs': "quench the inflammatory response in the skin" [11].

"This shows how the skin microbiome interacts with epigenetic factors in the skin and modulates the skin's inflammatory response."

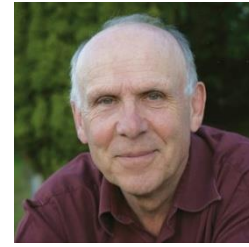
"In the future, drugs designed to turn these enzymes on or off could treat skin disease instead of antibiotics."

My View? "Drugs to turn these enzymes on or off"! I despair at the attitude of these good worthy idiots. How about working out what is the dysfunction between the microbiome and the skin enzymes!

Has excessive hygiene anything to do with it? I believe we should be focusing on: **Restoring the Skin Microbiome**, [April 2021](#) [12].

Human Behavior

Assassinating Bullies



English evolutionary behaviourist Prof. Richard Wrangham PhD, is best known for his work on the evolution of human warfare for which his book [Demonic Males](#) [13] is the reference work. I talked about his work in: **Origins of Warfare (4)**, [Jan 2006](#) [14]; and **(5)**, [Feb 2006](#) [15].

Now Prof. Wrangham has turned his attention to the phenomenon of what is called 'groupishness'. This is the tendency of humans to take into account the interests of the group over their own self-interest.

He focuses on the motivations of males. Like many social animals such as chimpanzees and wolves, we see that the males can sometimes turn on anti-social bullies and murder them [16].

However, we differ from chimpanzees and wolves in that, thanks to language and cognitive agility, we can **PLAN** and **ORGANIZE** coalitions **IN ADVANCE** to carry out the assassination.

Wrangham argues that 'targeted conspiratorial killing', contributed importantly to 'self-domestication' of the human species and to promoting 'groupishness'.

Says Wrangham: "Targeted conspiratorial killing is unknown in chimpanzees or any other vertebrate, and is significant because it permits coalitions to kill antisocial individuals cheaply. This helps explain why such killings are much more elaborated in humans than in other species."

Pleistocene men were skilled killers of large animals and would have found it easy to murder a despotic alpha-male who, being a violent bully, a trouble-maker, or being consistently selfish, upset the harmony of the forager band.

Over 12,000 generations, this anti-despot pressure would have selected

for men who, on average, gave importance to the welfare of the group over their own self-interest.

My View? In the forager band there weren't many options for dealing with psychopaths and anti-social misfits. Survival of the group was on a knife edge and anyone who threatened it had to be disposed of permanently. See: **Policing the Forager Band**, [April 2006](#) [17] and **Alpha-Male Police**, [May 2006](#) [18].

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Cruciferous Overload



Plant Hormones: the new Micronutrients,

[Sept 2017](#) [19].

And this is the twist: the body sees phytochemicals as hostile, foreign molecules. It therefore mobilizes chemical agents to deal with them [20].

In Flavonoids as Vaccines, [Oct 2008](#)

I describe how it is that these "mobilized agents" are responsible for the beneficial effects in terms of fighting degenerative disease.

This is similar to vaccination: injection by a foreign body so as to trigger the body's own defense mechanisms. This phenomenon also casts light on how substances like glucosinolate can be both helpful and harmful. See **Thyroid depressing Plants**, [Oct 2008](#).

So, the 'good' compounds in cruciferous vegetables are actually kinds of poison which, in modest doses, cause beneficial chemical reactions but which, in excess, overwhelm the body with plant poisons.

With regard to the psoriasis you mention, cruciferous vegetables, in moderation, provoke an anti-inflammatory reaction and are said to fight against skin conditions like psoriasis [21].

As for the literature, it is silent on the risks of crucifer overconsumption provoking auto-immune disease or psoriasis – but who knows? You are surely right to keep cruciferous vegetables as part of your food intake, but in moderation!

Hints

Morning Protein builds Muscle

Japanese researchers find that, in older women at least, shifting the intake of protein from the evening to the morning dramatically avoids muscle wastage and improves muscle building [22].

Says lead researcher, Prof. Shibata of Waseda University, Japan: "For humans, in general, the protein intake at breakfast averages about 15 grams, which is less than what we consume at dinner, which is roughly 28 grams. Our findings strongly support consuming more protein at breakfast."

My View? As far as we know, foragers paid no attention to what they ate or at what time of day they ate it. They simply ate what they could when they could.

However that need not stop us from discovering little tricks of our biochemistry which we can profitably exploit.

One such is this so-called 'chrononutrition' where timing what we eat can make a difference. I have already written about other aspects of it in: **Meal Size and Timing**, [Aug 2016](#) [23], and **Chrono-nutrition/Sun-skin Repair**, [Sept 2017](#) [24].

Lifestyle to Reverse Ageing

A pilot study in the journal 'Aging' finds that lifestyle modifications can improve epigenetic ageing by up to 3¼ years [25].

'Epigenetic ageing' is a measurement of how DNA deteriorates with age through the status of so-called 'methylation'.

The 8-week lifestyle guidance included:

- Physical activity: minimum of 30 minutes exercise per day, at least 5 days per week at an intensity of 60-80% maximum exertion.
- Sleep: at least 7 hours nightly
- Stress reduction: twice-daily breathing exercises.
- Diet: plants rich in phytonutrients. Include nutrient-dense animal proteins (e.g. liver, egg). Low in starches. Mild intermittent fasting.
- Supplements: fruit and vegetable powder, vitamins (including D3) and

the probiotic "*Lactobacillus plantarum 299v*".

My View? That all seems very Paleo-conforming! So be reassured that if you are following our protocols, you are doing great at slowing your ageing process.

Now for some comments in detail:

-The question of stress reduction is vexed. In the modern world, the tendency is to prescribe 'fixes' for the stress you have already got. Our view is that we should live in ways that **AVOID** unhealthy stress in the first place. See for example: **Male Shopping is Heart-felt**, [April 2010](#) [26], **Stress of Jobs for the Boys**, [Nov 2009](#) [27], **Stress of Jobs for the Girls**, [Feb 2010](#) [28].

-The diet was low starch (and deliberately low glycemic) so that is good. However the researchers felt it necessary to supplement with various fruit powders, micronutrients and probiotics. No need for us!

-No mention of sunshine. However vitamin D3 was one of the supplements. We prefer the sunshine!

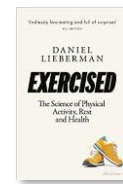
-The diet included intermittent mild fasting. This is totally in line with our view that it is important to feel hungry for a couple of hours each day. See: **Intermittent Fasting Revisited**, [July 2017](#) [29].

Ancestral Physical Activity

High Intensity Aerobic Exercise



Credit [30]



Continuing [last month's](#) highlights from Prof. Lieberman's [31], latest book, 'Exercised' [32]

Lieberman relates how the 1957 Marshall Expedition followed some desperately hungry San hunters who finally came upon a herd of giraffes. One of the hunters dashes full speed, barefoot, for about a minute, in order to get a decent shot with a poison-tipped arrow. He succeeds but they must track the wounded giraffe for another 30 miles.

That initial sprint: "illustrates unforgettably how occasional short

bursts of high intensity were vital complements to more usual low- to moderate-intensity aerobic activities. “Athletes have long known that surges of this intensity – some 85% of maximum – improve performance.

My View? I have featured several times the idea of High Intensity Interval Training (HIIT). See: **One Minute Per Day**, [Dec 2005](#) [33].

I first became aware of it as a young boy interested in the exploits of long distance runners such as “The Flying Finn”, *Paavo Nurmi* who called his interval training ‘fartlek’; and then ‘The Czech Locomotive’, Emil Zatopek who, in the 1950s, inflicted brutal HIIT sessions on himself.

In 1962, Nurmi predicted that welfare countries would start to struggle in the distance events: “The higher the standard of living in a country, the weaker are the results in the events which call for work and trouble.

“I would like to warn this new generation: ‘Do not let this comfortable life make you lazy. Do not let the new means of transport kill your instinct for physical exercise. Too many young people get used to

driving in a car even for small distances.”

Wise words indeed!

Continued from Page 1

Limits to Protein Intake

Vilhjalmur Stefansson, lived years with Eskimos. He later experimented on himself at Bellevue Hospital, New York. He consumed meat only. During the first 3 days he became ill with “rabbit starvation” at a protein intake of 45.3% of energy intake (34). The symptoms disappeared when he lowered the amount of protein modestly and replaced it with extra fat.

And that is all we seem to know. Apparently the role of fat is simply to dilute the protein content to acceptable levels.

Reminder: even “protein-rich” foods, like steak, seafood, chicken, and nuts are still only some 25% protein. Eggs are only half that at some 12%.

My View? The authors of a scientific review recommend that protein would best compose about 25% of calories [35].

What do you know? That is the ratio that we find foragers consuming – the BondPaleo model.

Foragers never ran the risk of ‘rabbit starvation syndrome’ – meat was hard to come by and they filled up on foods of vegetable origin.

It gives the lie to those who advocate a ‘carnivore diet’ which, in my view, is clearly unhealthy, even if it is “**Nose to Tail**” Carnivore Diet, [Oct 2020](#) [36].

Continued from Page 1

Food Taboos

...practised by every culture one looks at. There is every kind of restriction that one can imagine.

Moreover such taboos have a sacred aspect: any transgression is treated with frenzied condemnation even unto assassination of the transgressor.

Needless to say, we take a totally rational view of what we eat: nothing is taboo in the strict sense of the term. If you have a lapse by, for example, eating a slice of Black Forest gateau, that is your responsibility and there will be no crazed condemnation from us!

Paleo in a Nutshell: Geoff’s latest work encapsulates, concisely and easily, current thinking on living the way nature intended. www.paleo-nutshell.com



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