Replacing Salt & Fat

Abstract

Humans have evolved base-level instincts to ensure salt and fat are components of our daily diet, despite the risks involved with both. Reasons for these basal desires are explored and a dietary supplement that satisfies them, without any of the negative effects of high-salt and high-fat diets, is constructed.

1 Diet and Taste

1.1 Salt

Subscribers to the theory of evolution hold as a truth that monkeys lie directly up the evolutionary tree from humans. If we look further, we discover that humans actually came from fish-like creatures in the primordial soup of early Earth. Then, and today, the salinity level in the oceans was high enough that it must be processed when ingested.

Therefore, the oldest components of our genetic material are programmed for a dependency on seawater. As is commonly known, over half of the human body is made up of water, but it is becoming increasingly less salty as we continue to evolve.

Sodium, the *s* in salt, is an essential nutrient for human function. Its duties include regulating blood pressure through the salinity levels in blood and facilitating activity in the nervous system. In abnormally high levels, sodium can overpower the filtering mechanisms in kidneys and lead to high blood pressure. If the kidneys are already weakened, for example by a swift punch, the risk is even higher.

1.2 Fat

Fat is animal tissue that is too weak to perform motor actions. This is why exercise develops muscle in any species, while lack of exercise results in a fat individual. There are many kinds of fats, though. Saturated fats and trans fats have known

links to high cholesterol and increased propensity for heart failure. Omega-3[1] fatty acids, on the other hand, reduce the risk of certain cancers and cardiovascular disease, and contribute to overall mental and physical well-being.

Residents of any city with a farmer's market are familiar with the practice of swallowing fish oil in pill or liquid form to supplement the diet with Omega-3 fats. Fish are the most common source of Omega-3 fatty acids for humans, but not everyone gets down with bait and tackle, hence these supplements.

The risks of a high-fat diet are well known, regardless of the particular fat's intentions. Ridicule by peers, in a way that has fallen out of fashion for race and sexual orientation, is still a very harsh reality for those whose fat intake is abnormally high. Excessive fat intake also leads to weight gain: analogous to the popular riddle "Which weighs more, a pound of lead or a pound of feathers?"[2] is "Which weighs more, a pound of fat or a pound of muscle?"[3]

2 Instinct and Reward

2.1 Taste Zones

The human tongue is covered in taste buds segregated into six distinct districts, as oh-so-accurately taught in 20^{th}-century elementary schools. Two of these taste zones are dedicated to sensing salty quantities in foods, due to its importance. Sweetness is relegated to just the tip of the tongue; and bitterness, which no one would prefer to taste anyway, is way at the back. The other two districts are dedicated to sensing sour tastes, and there is a recently discovered fifth taste type, umami, as well.

Like all things Japanese, umami is difficult to explain, but it is analogous to savory tastes like a fatty pot pie. Umami does not have a dedicated taste zone on the tongue, but research by Adam Fleischman [1] suggests that umami overpowers sour, as shown by the lack of lemons in his products. As a result, especially in American diets, the two sour taste zones have converted to umami taste zones, and overall the tongue becomes especially programmed to detect salty and savory (fatty) tastes in food.

2.2 Dopamine Levels

Dopamine is a chemical used to deliver signals between neurons in the brain. As they say, good news travels fast, and signals of pleasure are the most popular forms

[1]Not, in fact, the name of a Transformer

[2]For the curious, the answer is "depends on your elevation"

[3]They're both a pound, dummy

of dopamine releases. Hard drugs like cocaine have direct effects on dopamine reception, which is why they make you feel so great.

Dopamine levels increase in kind with moderate (not life-threatening) increases in salt intake, but not in temporary spikes. A drop in Omega-3 intake has been shown to cause a similar drop in dopamine. Salt is an adrenal stimulant, releasing adrenal hormones as it's ingested, creating a reaction similar to those seen in drug addicts. Therefore, when both salt and fat are not present in normal quantities, the body enters a depression-like state.

3 Building the Product

3.1 Emulating Salt

With no shortage of artificial, synthesized sweeteners[2], emulating the sweet taste without incurring the dietary risks of sugar has become commonplace. Emulating salt is more difficult, since half of salt is chlorine which is poisonous in large amounts. Existing mass-market solutions replace the sodium in salt with potassium, but neon was chosen in this case as it also obviates the need for artificial coloring.

Super-cooling neon gas brings it to a workable form, which is then mixed with elemental sodium, heated into a stew, and put into ice cube trays. Once super-cooled again, the solution is ground into a glowing red powder.

3.2 Overloading Umami

Ordinarily, the umami flavor response is triggered by the presence of glutamic acids, like Monosodium Glutamate (MSG). It is also triggered by mushrooms[4], especially once sautéed to emulate the experience of tasting fat. Caution must be taken to avoid sautéing mushrooms in a fatty substrate like butter, so carefully-selected button mushrooms are sautéed in Olestra, then minced into workable sizes for inclusion in the product.

3.3 Alternate Pleasure Sources

Chocolate is well-known for increasing dopamine levels in romantic comedies and tabloid magazines. Without adding sugar, milk, or dark, it can still produce the effect without any negative externalities. Hershey's cocoa powder is mixed into the product to ensure high dopamine levels and provide a pleasant dessert-y flavor.

[4]Mushrooms also make Mario taller, but synthesizing growth hormones from fungus is a process that hasn't yet left Japan

3.4 Blood Pressure Regulation

The active ingredient in Bayer is aspirin. Moving on.

3.5 Osmoregulation

As previously mentioned, the sodium in salt helps regulate the homeostasis of fluids in the body, which in turn keeps blood pressure at healthy levels. Building off of research by Wayne Szalinski[3] and Vector Scope[4], full pump stations which autonomously regulate a host's blood pressure are procured and then superminiaturized. It takes some creativity, but these microscopic pump stations can successfully be added into the product and configured to come online when they detect the presence of stomach acid. Ingeniously, the only waste byproduct of these stations is white blood cells.

3.6 Neural Strength

Anyone can walk up to the counter at a truck stop and pick from dozens of mental stimulants and other nootropics. After performing this experiment in multiple controlled environments[5], finely ground Gingko biloba emerged as the most popular and was added to the final product.

4 Product Availability

4.1 Animal Testing

Each dose of the product was limited to 400mg. The major active ingredients are sautéed mushrooms and cocoa powder. Inactive ingredients include sodium neon, aspirin, Gingko biloba, miniaturized pump stations (aluminum, kerosene), and gelatin (binding agent).

Initial tests were performed on common farm pigs. After one week at two doses per day, the test subjects were less interested in their trough-slop than the control pigs. Both groups performed similarly in blood pressure tests, and the pigs using the product actually scored higher on the PSAT following the conclusion of the test[6].

[5]Love's, Pilot, Flying J, a really big Quizno's, you get the picture

[6]One pig *did* regrettably develop an addiction to the product but it was later determined that the pig was in fact a chocoholic

4.2 Retail Placement

Bolstered by the positive results and a generous offer from Pfizer, commercial versions of this product will appear in drug store chains in late 2012. No prescription will be necessary and a month's supply will retail at $3,000. When one considers the amount of meals purchased at fast-food locations, snacks purchased from vending machines, or other sources of high-salt and high-fat food that will no longer be desired, this is entirely reasonable.

4.3 Side Effects

Prolonged use of this product at its recommended dosage may, but not necessarily will, cause one or more of the following: genius, modification of eye color, improved mile time, death, odorless flatulence, immunity to osteoporosis, and skin tags.

References

[1] Cox, Penney Finkelman (producer). *Honey, I Shrunk the Kids*. Released 1989.

[2] Fleischman, Adam. *Umami Burger*. Los Feliz, 2009.

[3] Spielberg, Steven (executive producer). *Innerspace*. Released 1987.

[4] Willis, Wallis. *Sweet'N Low, Sweet Chariot*. Recorded mid-19th century.