Eco Salt
ALL NATURAL
SALT SUBSTITUTE

Refined salt: an every day poison.

Extracted from the book ‘’18The Salt’’19 (US)

A certain effort is necessary to understand why something as healthy as the salt, has become our everyday toxic. As always, there is not an only motif, but a sum of factors. That is why it is prudent to analyze the subject from different angles: chemical, physical, productive, cultural, etc. But we shall see that all aspects converge finally in the economic interest, that –'13ironically- shows little interest for health. By any chance, might be that for business economy a healthy person it is not profitable?

We shall analyze the problem of salt from to complementary perspectives: the material level and the energetic level. We can begin by pointing out that the key to the question is in the industrial refination. Analyzed from the chemical point of view, the difference between integral sea salt and modern table salt is enormous. The simple evaporation of sea water leaves as a consequence a solid residue which we call salt. The named residue is composed by the 84 stable elements of the periodic table. Of course chlorine and sodium are the main elements in quantity, around 90% of its mass, but the qualitative importance of that 10% remainder is really extraordinary.
If we understand that all the life of our planet sprung from the sea bed, it is obvious that there is a natural and functional similarity with that ‘’18mother soup’’19. All the life forms (plants, animal, humans), carry incorporated the named solution in our inner fluids (savia, intercell liquid, plasma). Our ancestors were aware of this, thanks to their holistic view, but our reductionist industrial modernism has swept that perspective away. Specifically in salt, the process began by thinking in terms of ‘’18dirt’’19: salt should be washed and purified to be presented as a ‘’18clean and hygienic’’19 product. This concept worked –'13and the saddest thing:

it still works at mass levels- also with other basic foods that undergo industrial processing: flour, rice, sugar, oil, etc.
THE PROBLEM OF REFINING

There are also other hefty reasons why the industry has developed complex and expensive procedures of cleaning and purification of salt. It is precisely because the great industrial value of the basic component of salt (sodium chloride) was discovered in the development of chemical synthesis products. Once freed from impurities (and therefore the ionic balance provided by the other 82 elements), the sodium chloride is a perfect and economic reaction agent. That is why the technique of refining and cleaning was perfected, to obtain the maximum purity in the production of sodium chloride. This substance became an essencial element for the chemical industry, specially for the production of plastics, mineral oils, etc. Also the food industry incorporated sodium chloride as preservative, to stop decaying processes: an example is yogurt, which contains sodium chloride, not as a flavorant but as a preservative.
Dr. Sherry Rogers gives us another hint about why salt is refined, in her book ‘’18The cure is in the kitchen’’19: ‘’18table salt that has invaded the US market in the last 50 years seems to be a derivative of guns manufacturing. Big companies (such as Morton Thiokol, rocket fuel manufacturer) refine salt to obtain certain minerals which are then used in their war and space manufactures. In the process of industrial refining, table salt goes through temperatures of 670°'b0C, which alters definitely its natural structure’’19.

Because of these reasons salt is refined exhaustively in the modern world. A single number will allow us to better understand this reality: 93% of the salt refined in the planet is intended for industrial, not alimentary uses, 4% is used by the alimentary industry as a preservative and merely the remaining 3% is used as table salt. Translating it into simple language: ‘’18by the way’’19 table ‘’18gets’’19 the ‘’18benefits’’19 of the excellent ‘’18purity’’19 of industrial refining and our housewifes ‘’18benefit’’19 by having available an ‘’18immaculate’’19 product.

CThere is also another major source of sodium chloride, though not coming from refining also comes from and industrial waste and therefore ‘’18drags’’19 the harmfulness of technological manipulation, specially in the energetic level. We are speaking of the paper pulp factories. Sodium chloride is a residue left by the process of cellulose pulp production, base of the paper industry. As the warning in the movies go: ‘’18any resemblance between this activity and salt brands is mere coincidence’’19.
In 1971 the Japanese government established that all salt for human consumption should be produced by the dubious ion exchange process which uses 3.000 volts and 120 amperes of electricity to extract the ions of sodium chloride from sea water. An atomic physicist, Katsuhiko Tani, contrary to this decision, began studying the matter, creating the Salt Investigation Association. In one of his first experiences, Tani worked with live clamps submerged in different concentrations of salt naturally obtained by sea water evaporation. Then imitated this concentrations with salt for human consumption and with potassium salt (potassium chloride), a substitute for hypertensive patients. The result: the clamps submerged in the solutions with natural salt reacted opening their shells, while those submerged in the solutions with salt obtained by ion exchange or potassium salt, remained closed, reacting as if they were in a hostile environment.
The preceding paragraphs are related with a tragic reality that worries almost nobody: sodium chloride, as a pure chemical substance does not exist in nature. Something alike happens with sucrose (white sugar). Biologically the organism does not recognize these extremely pure and refined substances; in addition, it considers them toxic because of their reactivity. Ironically, for the same reason why the industry appreciates sodium chloride the organism rejects it.
To better understanding of this bodily ‘’18fobia’’19 to chemically pure compounds we can use two very simple but illustrative examples: sugarcane and coca leaf. Recent studies conducted in South Africa over urine samples of two thousand workers of sugarcane plantations, showed no trace of glucose, though they chewed in average two kg. of cane a day, ingesting approximately 350g. of sugar a day. The explanation is simple: while chewed cane is a natural aliment, full and easily metabolizable, refined sugar is a strange and noxious product to the organism. Other investigations conducted in Africa and India show that diabetes is unknown in regions that do not include carbohydrates in their diet.
Regarding coca, it is simple to observe in Andean villages everyday consumption of its chewed leaf (good for height illness) does not generate the devastating effects of the refined extract, known as cocaine. We are always speaking of vegetable products, but the refining and purifying process is in the middle.
Exercise regularly
Take the adequate medication
Visit your doctor periodically

THE PROBLEM OF ADDITIVATION

Back on refined table salt, not everything finishes with the separation of the other 82 elements. Then it suffers the additivation of other refined compounds, like the case of iodine and fluorine, both toxic minerals and reactive agents in the shape of industrial additives. In which arguments is this compulsory procedure based? Resolving thyroid problems (iodine) and protecting dental health (fluorine). But nobody takes into account that the body cannot metabolize the artificial supplementation of iodides and fluorides. Many scientists are warning about the connection between these compounds and gastric cancer. They are also responsible for allergic reactions and other health problems. Recent studies show that iodides addition to table salt can cause hyperthyroidism, autoimmune thyroid and fertility decrease. On the other hand, fluorine, even in low concentration, it is related with neurological and endocrinal problems , affecting the nervous system and causing ADD in children and adults.
To add to this tragic view there is the additivation of other preservatives, all legally authorized and even without the obligation of being declared in tags. Besides potassium iodide, salt industry adds dextrose, a kind of sugar which avoids the oxidation of iodine. Then they add sodium bicarbonate, in order to help the salt from taking a purple tint after the addition of potassium iodide and dextrose. To avoid compactionthey add aluminum hydroxide. The connection between aluminum and Alzheimer is well known and this light metal plays in neuronal dysfunction, blocking brain processes.
Other additives que find in table salt are: calcium carbonate (pulverized animal bones), siliceous sodium aluminate, sodium ferrocianide, green ferric ammonium citrate, yellow prusiate sodium, magnesium carbonate.

THE PROBLEM OF SODIUM

Through refined salt, a large amount of sodium is absorbed by the body, on a daily basis. Sodium is necessary to the metabolim, but nowadays it has becomed a problem due to excessive consumption, specially through inorganic forms. Sodium contributes to the homeostasis of the equilibrium acid-alcali, hydric and electrolytic. It is also necessary for the transmission of the nervous impulse and for the normal excitability of muscles. The ideal form of consumption is through fresh aliments, which contain it in a digestible way. But the enormous sodium consumption occurs through industrial products and in time is related with synergic electrolyte deficiencies: potassium. The sodium/potassium disorder has become of the greater causes for modern health problems.

Normally it is thought –'13and suggested by specialists- that avoiding salt will resolve the sodium excess problem. However, the modern consumer is exposed to the unwarned and sometimes harmful forms of sodium in industrialized everyday aliments, most of which are not indicated in the tags of the products that contain them. A perfect example is the common bread, that contributes with 1,3% of salt, that is 500mg of sodium for every 100 g of bread. If pay attention to WHO recommendation for adult intake of salt not to exceed 6 grams of salt a day (2,4 grams of sodium), we shall se that only 500g of bread a day is enough to go over the suggested intake.

Refined sodium chloride is widely used by the food industry, which uses salt not only as a flavorant, but also as preservative. In many products it is used abundantly to intensify some tastes, while in some other products is used merely as a preservative. Furthermore, sodium is part of a great amount of legally authorized alimentary additives: preservatives, stabilizers, emulgents, thickeners, gellifiers, flavor intensifiers or sweeteners. Let''19s see the 44 sodium based additives list, that sometimes only appear with their code in the aliments''19 tags.

E-201 sodium sorbate
E-211 sodium benzoate
E-215 sodium derivative of 4-hidroxibenzene
E-221 sodium sulphite
E-222 sodium bisulphite
E-223 sodium metabisulphite
E-237 sodium formate
E-250 sodium nitrite
E-251 sodium nitrate
E-262(i)sodium acetate
E-262(ii) sodium diacetate
E-281 sodium propionate
E-301 sodium ascorbate
E-325 sodium lactate
E-331a monosodium citrate
E-331b disodium citrate
E-331c trisodium citrate
E-335a monosodium tartrate
E-335b disodium tartrate
E-337 sodium-potasium tartrate
E-339a monosodium phosphate
E-339b disodium phosphate
E-339c trisodium phosphate
E-350i sodium malate
E-350ii sodium hydrogen malate
E-401 sodium alginate
E-450a(i) disodium diphosphate,
E-450b(i) pentasodium triphosphate
E-450c(i) sodium poliphosphates
E-470 sodium, potassium and calcium salts
E-481 Sodium stearoyl-2-lactylate
E-500a sodium carbonate
E-500b sodium bicarbonate
E-500c sodium sesquicarbonate
E-514 sodium sulphate

E-524 sodium hydroxide
E-535 sodium ferrocianide
E-541 sodium aluminum acid phosphate
E-554 sodium aluminum silicate
E-576 sodium gluconate
E-621 monosodium glutamate
E-627 sodium guanilate
E-631 disodium inosinate
E-635 disodium 5'-ribonucleotides

The most important of this list should be no other than monosodium glutamate.It has been used for over five decades as a flavor intensifier. E-621 acts a neurotransmitter, implied in the sensitive response of the sense of taste, acting in the transmission of electric impulses

throughout the nervous system. Normally it is used in precooked meals such as soups, sauces, meats, tinned food, dressings, etc.
Though its use is fully authorized, many studies have seriously questioned the harmlessness of monosodium glutamate. Japanese researchers have associated it with lost of vision and blindness in the long term. Different experiments have shown than its direct inoculation in the eye in mild and medium concentrations produces nervous damage. A clinical investigation of the Universidad Complutense de Madrid, has shown that monosodium glutamate intake considerably increases the appetite, increasing the risk of obesity. Ingested since childhood and in excess can modify the function of an area of the brain which regulates the appetite, increasing the urge for food in a 40%.
Synthetically, monosodium glutamate may produce: muscle contractions in the face and chest, palpitations, asthma attack, and headaches, sterility, obesity, and the famous ‘'18chinese restaurant sindrome’'19 (muscle stiffness in the neck and jaws, brain cells degeneration, gastric roblems, stiffness and/or weakness in the extremities, blurry vision, dizziness, thorax oppression, hot and tingling sensation, numbness and face blusing). The intake of 3g of this substance may be well enough to generate the named syndrome.

DAMAGES CAUSED BY REFINED SALT

We thought if convenient fo address the damages produce by refined salt consumption only after having looked at those caused by the alimentary industry. As we have seen before, the problem has two main and equally important aspects: the **awful quality** (physical, chemical and energetic) and the **high amounts** which is ingested.
The most important consumption of refined salt comes from the industrialized aliments, which, as we have seen, use the salt because of its **taste and preservative** effects. We should not think only of tinned food or typical salty products (ham, cheese, French fries, etc.) but in apparently harmless foods such as breads or yogurt (which takes sodium chloride as a preservative).
Beyond the breaking up of the chemical balance caused by refination, the main problema of modern table salt for human health is precisely that that makes it a necessary ingredient for industrial chemistry: its **reactivity**. Threatened by this reactive agent, the organism if forced to set in motion the various defense mechanisms that in addition to wasting a lot of energy, ultimately do not solve the problem.

LIQUID RETENTION

One of these mechanisms is hydration and its based in the employment of intracellular water or plasma. This precious element, -a limited resource in the organism and originally assigned to other physiological purposes- it is used to ionically compensate the reactivity of the sodium chloride molecules. Each gram of sodium chloride that must be neutralized requires 23 times its weight in intercellular water. The resulting product, though electrically balanced, still has to be eliminated as a toxic substance. Kidneys may excrete only a part: allegedly 5/7 grams out of 12/20 grams of daily intake. This everyday deficit between what goes inside the mouth and can leave by nephric way is one of the great problems this lifestyle creates for the organism. To get a full picture of this ailment is better to multiply these values by the 30 days of a month or by the 365 days of a year. Here we can find the origin of a very modern problem: liquid retention. Such an ailment does not go without weight increase and greater demand for the organs (specially the hart, liver and kidneys) that must work excessively.

E-524 sodium hydroxide
E-Another negative consequence of this everyday mechanism of neutralization is the reduction of intracellular liquid. The organism has to choose between the normal (or original) use for intercellular water (that is: cellular renovation) or attending the need caused by chemical imbalance introduce by the sodium chloride highly reactive molecules. The mid term consequence is slow cellular and body dehydration, also known as latent senility. Drinking water is not enough to make up for such a shortage, because intracellular water is not only H2O, but also the remaining 82 stable elements that form the sea plasma. To sum up, on one hand the organism has a terrible excess of sodium chloride and on the other hand a serious lack of complete and correctly structured salt.

OBESITY AND CELLULITIS

The part of sodium chloride which is not excreted by nephric way , by remaining in the body, generates a second mechanism of neutralization: the lipogenic capture. The organism ‘'18claims”'19 fat cells to ‘'18encapsulate”'19 the ‘'18wandering”'19 sodium chloride. By these means, the body seeks to isolate toxic material that can not eliminate at the time, waiting for some pause moment in which to eliminate it definitively. That moment would be, for example, fasting, that, is needless to say, never happens in our way of life.
As a consequence of this second mechanism of neutralization, the organism forms a spongy tissue which locates in the hypodermis, the deepest level of the skin. This acidulated edema generates two consequences widely known and feared: overweight and cellulitis. The process of neutralizing toxic substances (not only sodium chloride) in the lipid tissue is one of the deep causes for obesity, thought it may be hard to accept due to our cultural standards. Specifically: more toxins remain in the organism because of the collapse of the emunctories, a greater increase of the body fat. In other words: body toxemia generates obesity.

CRYSTALLIZATION AND ESCLEROSIS

The molecules of sodium chloride which are not eliminated by nephric way or isolated into body fat, request a third mechanism of survival o neutralization: crystallization. We properly call it survival, because the accumulation of more than 35 g of these crystals can be lethal. The sodium chloride unites with amino acids of animal origin (found in dairies and meats) and forms crystals of uric acid. The crystals that are not excreted, locate on bones and joints expecting a chance of being excreted, causing excruciating pains in bones and joints. Other uric acid crystals remix with more sodium chloride and calcium oxalates causing the formation of calculus (in kidneys, blatter or vesicle). Other variation of crystallization we can found in veins and arteries causing vessel fragility and sclerosis. Crystallization is, originally, an emergency protective mechanism that the organism develops to defend the quality of the cellular medium and the correct function of cells. But chronic intoxication ends up poisoning the system, because the excess of crystals does not get evacuated from the organism and these causes sever pains also chronic.
Other damages caused by the consumption of refined salt have been evaluated by different investigators: emotional problems, excitation, insomnia, fatigue, ulcers, addictive dependence, hypertrophy of suprarenal glands, loss of hair, stomach cancer, osteoporosis, . Oriental diagnosis brings physical indicators to detect the excessive presence of salt in the organism: dark skin, muscle stiffness, tight jaws, standing out lower teeth, bursts in eye blood vessels, dark urine and dark feces.