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# ESSEN RIVESTA

*ENTWINE WORLD AND NUTRITION*

## SALTED FOODS

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**Be unique like salt! Its presence is not felt but its absence makes all things tasteless...**

As the above quote says, salt plays a vital role in our life. We chose this topic to be efficacious to the readers. We take immense pleasure in revealing the unknown facts about salted foods.

Salt is used as universal flavour improver because at low concentrations it will reduce bitterness, but increases sweet, sour and umami, which is desirable for sweet recipes. But at higher concentrations it suppresses sweetness and enhances umami, which is good for savoury things. This can be explained in terms of philosophy too. Nothing should be taken for granted in life.

This magazine emphasizes the fact that consumers care about the quality of salt as it is an essential product in our day to day life. We would also like to share that ancient people used salt in all food products and respected it as Goddess Lakshmi. Salt isn't being used in the recent years, it has been used as preservative, flavouring agent, taste enhancer and many more before BC.

The very objective of this magazine is to explain people about the daily product we use in our life. We sincerely and personally felt that everyone should know about the role of salt and their related foods. There is a saying "*Men cannot know each other until they have eaten salt together.*" Deep in the human heart is the desire to be together with people that we love. Human happiness can be shared only to a small number of people as we use salt in our food....

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## **Mooala's Oat milk enters organic category with its zero sugar Oat milk coconut cream and cinnamon**

**Balu Muniyandi. C**

While several big names have piled into the oatmilk category in recent weeks, there is still room in the market for newplayers, argues the founder of mooala, which is best-known for its organic banana milk and almond milk, and is now launching a zero sugar organic oatmilk with coconut cream and cinnamon.

Most oat milks are usually unsweetened (No sugar added), but still typically contain 2-7 g naturally occurring sugar from oats, whereas MOOALA'S PRODUCT (which contains no added sunflower or canola oil) contains zero grams of sugar and 50 calories per serving vs the more typical 90-120 cals for unsweetened oatmilk, said Richards. Mooala's oatmilk (MSRP\$5.99) will launch in the refrigerated aisle in whole foods and safeway-albertsons regionally, and is available to retailers nationally through UNFI and KeHE, said Richards, who launched Mooala in 2016 and has since secured distribution through UNFI and placement in 2,000+ stores including whole foods, Wegmans, Shoprite, Albertsons-safeway, giant, and stop&shop.

"I can't say any more now but we'll be in traducing a line at expo west that takes us into a different part of the dairy case as we continue to target consumers looking for a more affordable organic option for the whole family".

As for plant 'milk' labeling, saidrichards, houses the terms 'plant-based and dairy-free' immediately under the word 'oatmilk' on pack; At the end of the day, they will do what the FDA says they must do, but there are number of different ways to make it very obvious to consumers that this is not from a cow.

The first -ever National Oat milk day occur on may 16 to celebrate and promote the new and abundantly available in plant-based beverage.On that day,vegan beverage company Califia farms will encourage people to make the switch from dairy milk to oat milk by providing free oat-based coffee drinks at select cafes in New York city .los angeles and san Francisco ,along side nationally available digital promotion last year ,califia raised \$50 million in capital -including an and disclosed amount from actor leonardo Dicaprio-to expand the production capacity of its vegan cold-brew coffee beverages,yogurts ,creamers and milk .

Reference [Daijiworld.com](http://Daijiworld.com), [TheHindu](http://TheHindu), [TheNavhindTime](http://TheNavhindTime)





## International News

Missvithashree.S

### Action of salt on savoury picnic foods

August 16,2019

Salt campaigners in the UK are demanding immediate compulsory front of pack nutritional labelling on all savoury snacks and for bold and comprehensive salt reduction targets to be set in 2020 after discovering that one in four savory picnic foods-including vegetarian and vegan options-are dangerously high in salt.

A nationwide survey from action on salt analysed 555 savoury picnic finger foods available from UK retailers to reveal what it called worrying levels of salt. It is mentioned that the food content of a 'typical' picnic basket could contain more than 5g of salt.

It said that while vegetarian products were lower in saturated fat, "their health halo is concealing lots of salt". The survey revealed that some vegan products were saltier than their meat-containing equivalents. For example, the same amount of salt in a McDonald's hamburger and fries.

"The food industries has ensured greater availability of meat-free alternatives , but now they must do more to ensure that meat free alternatives contain far less salt-at the very least lower than their meat equivalents ".Reducing salt is one of the most cost-effective measures to protect health .The time has come for the Secretary of State for Health to resuscitate the UK's salt reduction programme , helping us to once again , be world leading rather than trailing behind the rest of the world.

**Reference:** <https://www.foodnavigator.com/Article/2019/08/16/Food-industry->

### FSSAI plans to reduce the salt content

July 22,2019

A home grown snack food, traditional sweets and restaurant chain company recently the salt content of ratia , an Indian condiment, served across its food outlets .The company reasoned that it was a healthy practice that they intended to follow, but ended up providing extra salt powder to those who insisted on the 'authentic' taste.

What promoted the company to experiment this was a commitment it had made to the Food Safety and Standard Authority of India (FSSAI) a year ago, to make its food service outlets a responsible place to eat by voluntarily promoting safe and healthy eating practices through the introduction of recipes with reduced fat, salt and sugar.

An extra sachet of sugar, salt or ghee could perhaps enable Indian food service industry (National Restaurant Association of India estimates the market size of the sector at Rs 4,23,865 crore in 2018-19) maintain a balance between their commitment to be a responsible becoming a legal requirement for the processing food market and unlike fast food service outlets ,they cannot add separate sachets to their tetra packs containing fruit juices, Gulab Jamuns ,biscuit packets or potato chips and hence, face fresh market challenges. In the last week of June 2019,FSSAI plans colour-coded label for packaged food with high fat, salt and sugar.

**Reference :**<https://m-businessstoday-in.cdn.ampproject.org/>

# Story of Salted Food

Kavya Sakthivel, Shubhashree. P

*Imagine opening a fresh pack of chips and placing a crispy, seasoned, fried potato slice in your mouth. Your mouth waters as you anticipate the crunch and the saltiness from the chips, except when you take a bite, you taste bland, crispy potato chips with no salt. Will you eat another piece? The answer is simply, no.*



We human beings are pleasure-loving creatures, we live to experience subtle pleasures that stimulate our senses. One such sense is taste; the taste buds in the tongue can sense 5 major tastes: sweet, salty, sour, bitter, and umami. Among them, salty is a taste acquired by the usage of Sodium chloride salt- a compound made up of sodium and chloride ions. It is a prototypical taste molecule, they dissociate in the presence of water in order to be detected by taste buds.

Salt not only enhances the flavor present in the food but also plays a major role as a preservative. Apart from being a preservative, an important nutrient and a major ingredient in most dishes, salt is also often correlated with our feelings and emotions such as anger and integrity. This article will explore salted food in greater detail.

## History of Salted foods

The practice of salting predates the practice of cooking that is precisely how closely salt is woven into the fabric of human lifestyle. By the time language was developed by humans, the culinary importance of the salt was realized and it's usage had become a necessity. The preservation property of salt was initially recognized by the Egyptians who obtained their salt from marches of the famous Nile river. They realized that sodium in salt draws out the moisture in food, thereby eliminating bacterial growth in food and spoilage. However, they soon realized it could not only be used as a meat curing agent but also used to store mummies.

As mentioned above, adding salt is a common human trait and prevalent practice. According to Kawai [1965], wrote that Japanese macaques had a behavior of dipping potato slices in saltwater than

freshwater, it was mentioned that this learned behavior was to impart the taste and flavour to the potato. It is believed the relatively high use of salt started around 5,000-10,000 years ago. Initially, it was only used for the purpose of preservation, but around 4,000 years ago China carried out excessive salt mining and had improved transportation which leads to the wide popularity of salt taste around the globe.

## Types of salt

The most commonly used salts are table salt and rock salt, but that doesn't mean they are the only two types of salt. There are various types of salt that differ in colour, appearance, texture, place of extraction.

Table salt This is the most commonly used salt. It is harvested from underground deposits. This salt is highly pure due removal of trace minerals

and impurities during processing, they are finely ground and often ionized (addition of iodine).

### Kosher Salt

Kosher salt or Koshering salt is coarser and flakier compared to regular table salt. It is not ionized. Its flaky texture makes it easier to be sprinkled over meat. The salt got its name from its usage in the koshering process, where it is used in the desiccation of meat by removing the fluid from the meat.

### Sea salt

It is harvested from evaporated seawater, it is unrefined and usually has bigger and coarser granules. They contain impurities and trace minerals such as Potassium, Iron and Zinc, which gives the salt a more complex flavour.

### Himalayan Pink Salt

Harvested from the Khewra Salt Mine in the Himalayan Mountains of Pakistan, it is the purest salt in the world. It contains eighty-four natural minerals found in the human body, thus explaining its common use in the kitchen and spa. Its colour ranges from off-

white to shades of light pink. Its bold flavours are the reason for its use in salt-rimmed margaritas.

### Fleur de sel

Hand-harvested from the tide pools of the coast of Brittany, France, fleur de sel is quite literally the "Flower of salt" in French and reality. Much like taking the cream from the top of milk, fleur de sel is harvested from the water delicately with a wooden rake only on sunny, dry days with a slight breeze. Since harvesting this salt is highly labour intensive, it is the most expensive salt. It has a slight grey tint. Its usage is most often as a finishing salt for meat, vegetables, seafood and also sweet dishes such as chocolate and caramel.

### **Health Effects of salted food**

Salt is an ingredient that is often correlated with negative effects but it also has beneficial effects. Salt plays an important role in maintaining bodily fluids. Salt contains two elements namely sodium and chlorine. Since sodium cannot be produced by the body itself, it should be taken in our diet. As we all know that sodium is an electrolyte, it regulates the electrical charges moving

in and out of the body cells. It also helps in the contraction of muscles. It enables the transmission of nerve impulses and signals to and from the brain. Salt



helps us to maintain balance in our body. Chlorine helps in the digestion process. It also enhances the ability of blood to carry carbon dioxide from tissues to lungs.



An adult human body contains 250mg of salt and any excess can be naturally excreted by the body. "Too much of anything is good for



nothing". Connoting that too much of salt intake can lead to harmful effects such as kidney failure, increased blood pressure, and coronary heart disease and etc.. Eating too much of salt increases the sodium level in our blood thereby reducing the activities of our kidney to remove the water. Since it reduces the filtering ability of kidney, unwanted wastes and toxic substances may build up in our body which leads to kidney failure. It also leads to high blood pressure. Due to high blood pressure, the arteries can get damaged resulting in bursting or becoming narrow that they can clog up entirely. If the arteries get damaged, the organs can't get enough oxygen and nutrients. This can result in the organs being damaged. If the arteries leading to the heart get damaged, it results in a heart attack.

Due to the increase in the amount of sodium in the blood, the volume

of blood gets increased. So the heart finds difficult to pump the blood. High blood pressure may also lead to brain stroke. Not only a high level of sodium cause serious effects, but low level of sodium can also cause serious problems such as Addison disease,

blockage in the small intestine, diarrhea, underactive thyroid etc., so it is necessary to take a limited amount of salt in our diet.

### **Recent surveys on salted food**

80% of salt consumption is hidden in processed foods. Foods which contains high amount of salt includes bacon, ham, chips, cheese, gravy granules, soy sauce, prawns, salami, roasted nuts, salt fish, smoked meat and fish, sausages etc. *World action on salt and health* (wash) conducts International food survey every year to highlight the food products which contains high amount of salt and to differentiate the salt level present in similar foods between countries.

The 2014 survey includes the cereal brands containing high amount of salt. In this survey, KELLOG'S CEREALS tops the most sugary and saltiest cereals. In 2018, the survey conducted by WASH, based at QUEEN MARY UNIVERSITY OF LONDON, has revealed stunning level of salt present in breads. Breads play an important role in numerous diets worldwide

and it is one of the biggest sources of salt in our diets.

WASH surveyed over 2000 white, wholemeal, mixed grain and flat breads from 32 countries and regions and found that Rosemary Foccacia bread was the saltiest bread which is available in Canada. It contains 2.65 g of salt per 100g, which is saltier than seawater. Flatbreads and whole meal breads were more saltier when compared to other breads. WASH calls governments from worldwide to take necessary action to reduce the amount of salt present in processed foods.

Mhairi Brown, Nutritionalist at WASH stated that, bread is a very important staple food and it is the main source of salt in our diet. She recommended that one should take necessary steps to reduce the salt intake in our diet. According to WHO recommendations, this survey reveals the progress still to be made to lower the salt intake by 30% by 2025. Graham MacGregor, Professor of Cardiology at Queen Mary, University of London, and WASH Chairman stated that too much consumption of salt increases our blood pressure which is the major cause of stroke, heart

attack; heart failure worldwide and also said that this survey has shown that still many bread manufacturers adding a huge amount of salt to their products. Therefore, governments should take immediate and necessary actions to reduce the amount of salt in food products.

At present year, the survey was conducted together with WASH members in 13 countries, found 133 of the 343 children's meals available from McDonald's, KFC, Burger King and Subway had more than 1.8g salt per portion. Graham MacGregor, Professor of Cardiovascular Medicine at Queen Mary University of London and Chair of WASH, says: *"It is a scandal that the food industry is continuing to produce high salt meals which they then market to children. Global brands like McDonalds, Burger King and KFC must do much more to take salt off their children's menus. The dietary habits formed in childhood track through to adulthood and we must all act now to prevent the next generation from suffering with unnecessary and easily preventable strokes and heart disease"*

## **Popular salted products**

### **Potato chips**

#### LAYS

Lays is a potato chips product where the chips are fried, salted and seasoned. The company manufactures numerous flavors of chips with a variety of seasoning.

Lays has been owned by Frito-Lay. It was begun in the 1930's as two separate companies. In 1961, The Frito company and H.W.Lay company merged together to form Frito-Lay. Later in 1965, Frito-Lay merged with Pepsi Cola Company to form PepsiCo. The headquarters is situated in Plano, Texas, US.

### **Crackers-salted biscuits**

#### KRACKJACK

It is a kind of small, flat-baked sweet and salty biscuit. It was India's first sweet and salty biscuit.

It is owned by Indian company named Parle products private limited. It was founded in the year 1929. The headquarters is situated in Vile Parle (East), Mumbai, Maharashtra, India.

#### NUTRICHoice, 50 50 SWEET AND SALTY, 50 50 MASKA CHASKA

Nutrichoice is a high fiber digestive\_biscuits. It is one of the India's leading brands.50 50 sweet and salty is made of two opposite flavors (sweet and salt). 50 50 maska chaska is a delicious biscuit dipped in butter and peppered with the choicest of herbs.

These three brands are being owned by same Indian company named Britannia Industries Limited. It was formerly known as Britannia Biscuit Company Limited. It was founded in 1892. The headquarters is located in Kolkata, West Bengal, India.

#### SNACKY

Snacky are light and crispy biscuits sprinkled with salt.

This brand has been owned by sunfeast. ITC Limited is the parent organization. ITC is an Indian multinational conglomerate (multi-business industry) company. It was established in the year 1910. The headquarters is situated in Virginia House, Kolkata, West Bengal, India.

**Reference**<http://www.bloodpressureuk.org/microsites/salt/Home/Whysaltisbad/Saltseffects#TkIJ>

## HISTROY AND SOURCE OF FRENCH FRIES

Charulatha.k

French fries!! What comes to your mind when you hear that? Freshly fried, crispy, golden coloured, thin strip of potatoes? That's right. But, first we have to take a look about the source of the French fries, the potatoes. *Solanum tuberosum*, is the world's fourth largest food crop. It was first domesticated in the region of southern Peru and extreme northwestern Bolivia between 800 and 5000 BC. But when we get to India, the Portuguese introduced potatoes, which they called 'batata'. British traders introduced potatoes to Bengal as a root crop, 'alu'. It has become a staple crop in many countries. Belarus is the most potato loving country with about 181kg consumed per capita. China is now the biggest potato producer.

Potatoes have a rich source of starch, vitamins especially C and B1 and minerals. Potatoes are the all-star of the vegetable world in our opinion. Mashed, fried, or just as skins, potatoes rock our world in so many ways and preparing a great potato dish doesn't have to be difficult, it can be simple as throwing them in the oven with some butter and salt. The hardest part is often making sure you have to buy the right type of potato. It falls into two important categories that impact the outcome of your dish. Those are starchy and waxy (plus a category that lies somewhere in between those two). **Starchy**, like the classic Idaho or russet, these potatoes are high in starch and low in moisture. They are fluffy, making them great for boiling, baking and frying, but they don't hold their shape well, so they should be avoided in dishes like casseroles, gratins and potato salads. **Waxy**, like red bliss or new potatoes, these have low starch content and are often characterized by a creamy, firm and moist flesh that holds its shape well after cooking. They are typically great for roasting, boiling, casseroles and potato salads.

The French gave the world the hot air balloon, the sewing machine, aqua lung and the stethoscope. They even gave the United States the status of liberty. However, one thing the French cannot claim is the French fry. Despite its name, the French fry is *not* French. The origins of the French fry have been traced back to Belgium, where Historians claims potatoes were fried in the late 1600s. According to local Belgian lore, poor villagers living in Meuse valley often ate small fried fish they caught in the river. During the winter months the river would freeze over, making fishing impossible and forcing the villagers to find other sources of food. There comes our potato! The people turned to the root plant, slicing and frying it much in the same way they prepared the fish and just like that, the earliest French fries were born.

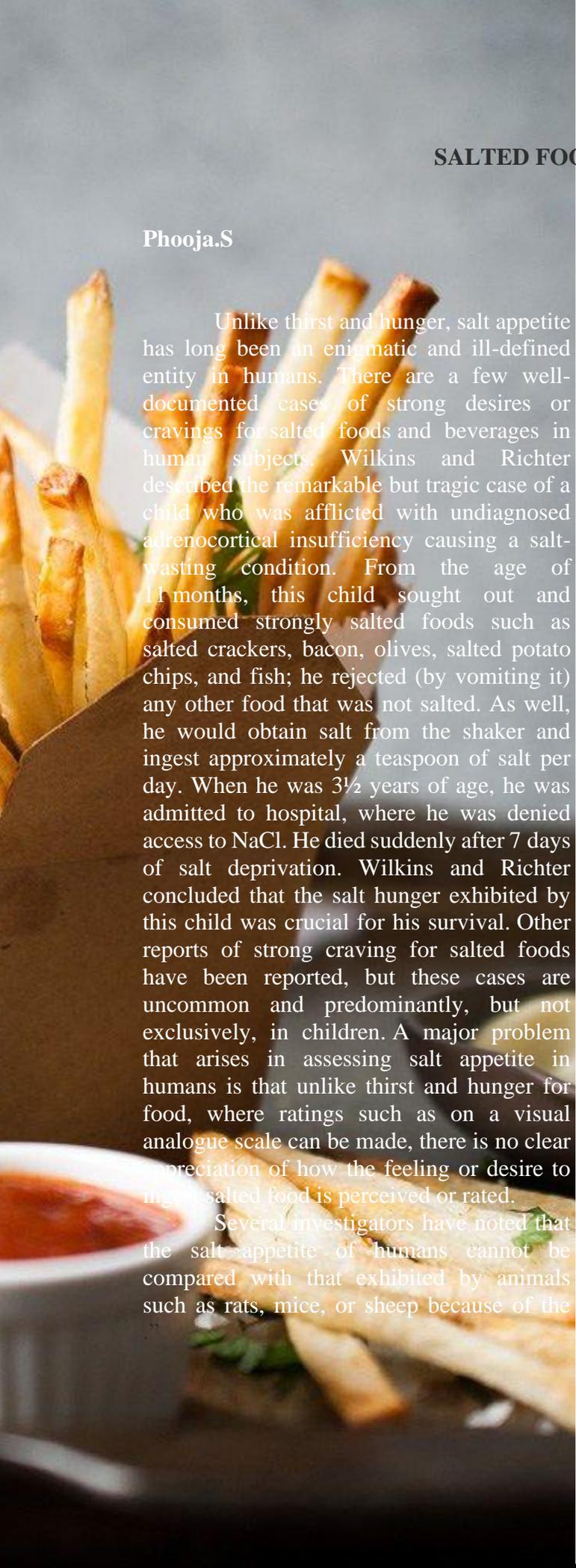
American soldiers stationed in Belgium were first introduced to French fries during World War I. As the official language of the Belgian army was French, soldiers named the delicious fried potatoes as "French fries". The name stuck, and decades later we are still giving credit to the wrong country. In Belgium, people prefer to eat French fries with cooked mussels or with a fried egg on top. The United Kingdom is famous "fish and chips" Canadians serve up poutine, a dish consisting of French fries and cheese curds, topped with brown gravy.

We love French fries of all shapes and sizes like Shoestring fries, crinkle cut, curly fries etranked according to its deliciousness. First, Garlic Fries, curly fries, shoestring fries, Belgian fries, Standard Fries, Steak fries, Crinkle Cut fries, Sweet potato fries, Waffle fries Potato Wedge.

**Reference:** <http://www.huffpost.com>.

## SALTED FOODS - An Overview

Phooja.S



Unlike thirst and hunger, salt appetite has long been an enigmatic and ill-defined entity in humans. There are a few well-documented cases of strong desires or cravings for salted foods and beverages in human subjects. Wilkins and Richter described the remarkable but tragic case of a child who was afflicted with undiagnosed adrenocortical insufficiency causing a salt-wasting condition. From the age of 11 months, this child sought out and consumed strongly salted foods such as salted crackers, bacon, olives, salted potato chips, and fish; he rejected (by vomiting it) any other food that was not salted. As well, he would obtain salt from the shaker and ingest approximately a teaspoon of salt per day. When he was 3½ years of age, he was admitted to hospital, where he was denied access to NaCl. He died suddenly after 7 days of salt deprivation. Wilkins and Richter concluded that the salt hunger exhibited by this child was crucial for his survival. Other reports of strong craving for salted foods have been reported, but these cases are uncommon and predominantly, but not exclusively, in children. A major problem that arises in assessing salt appetite in humans is that unlike thirst and hunger for food, where ratings such as on a visual analogue scale can be made, there is no clear appreciation of how the feeling or desire to ingest salted food is perceived or rated.

Several investigators have noted that the salt appetite of humans cannot be compared with that exhibited by animals such as rats, mice, or sheep because of the

high sodium intake of normal sodium-replete humans resulting from the ubiquitous salting of food. It has not been possible to measure an increased sodium intake in humans in response to sodium depletion resulting from such conditions as haemorrhage, diuretics, vomiting, or excessive sweating.

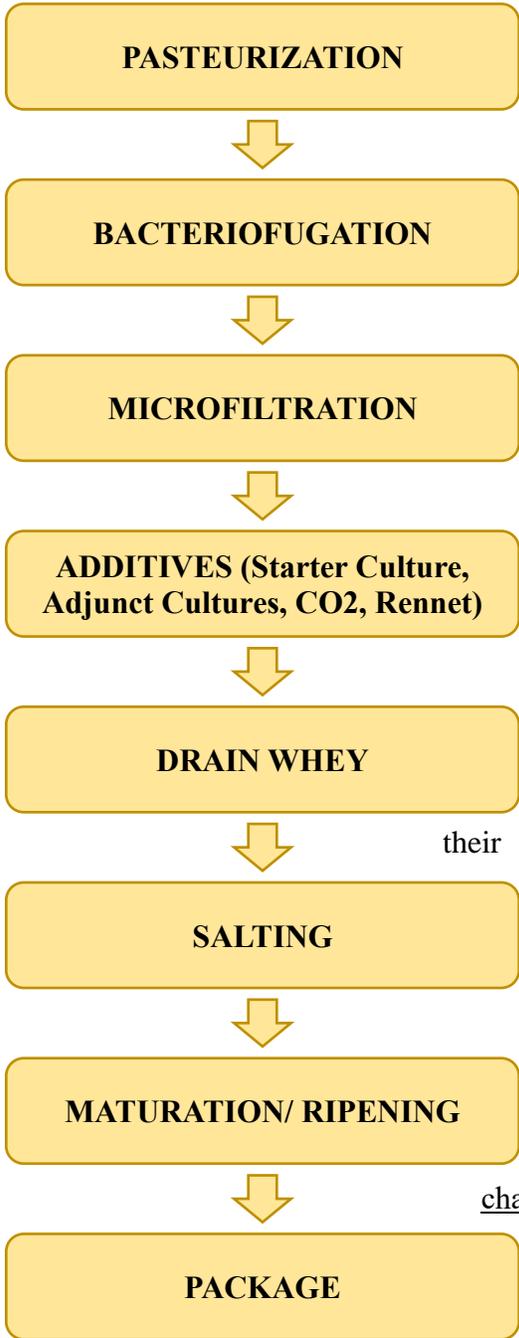
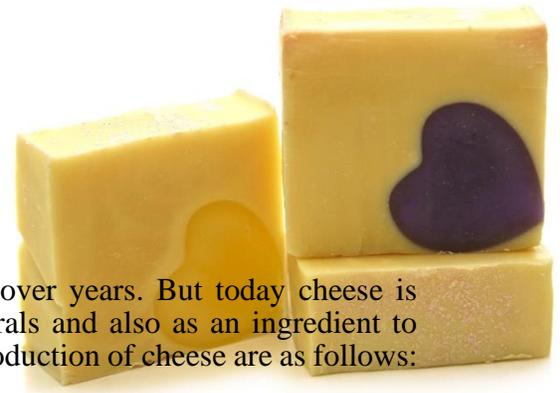
In regard to the influence of stress on salt appetite, Henry proposed that the overall salt intake of a society may reflect the general level of stress arising from psychosocial factors within that population

The studies in human subjects mentioned previously were limited to acute, short duration stressors that were relatively mild or not clearly defined in a questionnaire. Almost certainly, the intensity and duration of the stressors utilized in those studies would have been low relative to many of life's more intense and enduring stressors such as the death of a child or spouse, chronic pain, constant hostile interpersonal threats, or danger to one's safety and survival during a war. It would be of interest to know whether such severe and chronic stress could influence salt preference in humans. Both ethical and practical considerations make it unlikely that the effect of severe, prolonged stress on salt appetite could be investigated in the laboratory. Describing the studies on human stress and salt appetite up to 2014 as "scrappy," Lesham concluded that "the case for a substantive role for sodium intake in alleviating stress in humans or for stress promoting our intake of salt, although tantalizing as a potential explanation of great importance, remains unproven

# FARM TO FORK - CHEESE

T.Indra

Cheese, in the past, was solely a way of storing milk over years. But today cheese is regarded as an important source of various vitamins and minerals and also as an ingredient to showcase a variety of novel foods. The unit operations for the production of cheese are as follows:



## 1. Pasteurization

Milk is heated using regular High Temperature-Short Time (HTST) pasteurization at 72-73°C for 15-20 seconds. This exterminates most of the undesirable pathogens such as yeast and coli forms but spore forming bacteria such as *Clostridium tyrobutyricum* prevails during this heating process.

## 2. Bacteriofugation

It is a process to separate the bacteria and spores that are present in milk by centrifugation using 'Bactofuge'. It is an efficient way of reducing the number of spores in milk since their specific gravity is lesser than that of milk. Typically, 60-63°C is the temperature which is maintained throughout the process.

## 3. Microfiltration

It provides an indirect sterilization. Membranes of a pore size of 0.8-1.4 micron are chosen to lower the concentration of protein. In addition, they also have high bacteria-reducing efficiency.

## 4. Additives

➤ Starter Culture: The milk is cooled to 32°C to bring it to the optimum temperature required for the starter bacteria to grow.

➤ Cultures for cheese making are called lactic acid bacteria because their primary source of energy is the lactose in milk and their primary metabolic product is lactic acid which is important in acidification process, proper release of curd from whey, and to check the growth of undesirable bacteria. LAB include *Lactococcus lactis subsp. lactis* or *cremoris*, *Streptococcus salivarius subsp. thermophilus*, *Lactobacillus debruckii subsp. bulgaricus*, and *Lactobacillus helveticus*. These cultures not only produce lactic acid for fermentation but also generate carbon dioxide, for creating eyes in round-eyed and granular type cheese, and some aroma components.

Adjunct cultures: Adjunct cultures are used to enhance the characteristic flavors' and texture of the cheese.

Carbon dioxide: The addition of CO<sub>2</sub> is a method to promote the quality of cheese milk. Though CO<sub>2</sub> is naturally occurring in milk, most of it destroyed during processing. Therefore artificial addition of CO<sub>2</sub> is of much concern. This operation lowers the pH of the milk

by 0.1 to 0.3 units. Eventually, this triggers the coagulation time reduction.

- **Rennet:** It is the enzyme that acts on the milk proteins to form the curd. Chymosin key component of rennet, is a protease enzyme that curdles the casein in milk and provide a smooth texture to the card.
- The curd is not disturbed for approximately 30 minutes so a firm coagulum forms. About 30ml of rennet is enough for curdling 100 liters of milk, to yield 10 kg of cheese and 90 liters of whey. The amount of rennet added can be minimized by the addition of artificial CO<sub>2</sub> by mechanical means. Whereas, soft cheeses are produced without the application of rennet, by coagulating milk with acid, such as citric acid, vinegar or the lactic acid produced by sour milk. Fermentation continues for about 6-16 hours until the curd reaches pH6.4. The curd is then cut with cheese knives into small pieces.

### **5. Drain Whey**

Rennet-induced milk gels are relatively stable if left undisturbed. However, if the gel is cut, broken or exposed to pressure, an aqueous phase (whey) is released in a process known as syneresis. Syneresis, or shrinking, of the coagulum is largely the result of continuing rennet action. Controlling syneresis is the key to cheese-making as it allows the cheese makers to control moisture which, in turn, largely determines the quality, ripening and stability of the cheese. After the gel has formed, it is subjected to various treatments such as cooking, stirring, acidification, pressing, salting, etc to encourage the expulsion of whey. The curd mats are cut into sections and piled on top of each other and flipped periodically. This step is called cheddaring which results in the expulsion more whey.

### **6. Salting**

Salt is added during the manufacture of all cheeses, serving the important roles of preservative and flavoring agent. Most cheese varieties are salted by immersing the cheese in brine, after molding into blocks, for several days. However, the curds for Cheddar and related British varieties are cut, after cheddaring, into small pieces which are then salted using dry salt before being molded and pressed. Blue cheeses are traditionally salted by rubbing dry salt to the surface of the cheese after it has been molded.

### **7. Maturation or Ripening**

During ripening, degradation of lactose, proteins and fat are carried out by ripening agents. The ripening agents in cheese are: bacteria and enzymes of the milk lactic culture. It is responsible for the distinct flavor of cheese and also determines the features that define many different varieties of cheeses, such as taste, texture, and body. Majority of cheese is matured (ripened) for a period ranging from two weeks (e.g., Mozzarella) to two or more years (e.g., Parmigiano-Reggiano or extra-mature Cheddar). The cheese is stored in coolers until the desired age is reached.

### **8. Package**

Cheese may be cut and packaged into blocks or it may be waxed. Many cheeses are made and matured in large blocks, like 20 kg, and exported as such. For retail packaging, they are usually cut into appropriate size blocks and either shrink wrapped in an atmosphere of carbon dioxide, which dissolves into the body of the cheese. The subsequent anaerobic environment prevents mold growth on the cheese surface.

Cheese is the quintessential convenience food. There are around thousand named varieties of cheese scattered all around the globe. The high concentration of essential nutrients in cheese like proteins and calcium prevent deficiency diseases like osteoporosis, cavity formation, weight

gain and increases bone strength. But the content of saturated fats and sodium are also remarkably high, which can increase the risk of diabetes, obesity, and cardiovascular problems. Whether or not it is a healthful choice depends on the individual and the type and amount of cheese consumed. Therefore, the bottom line is that, cheese can be a valuable source of calcium for those without an intolerance or allergy, but it should be chosen with care and consumed moderately.

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<http://milkfacts.info/Milk%20Processing/Cheese%20Production.htm>

### Who Am I?

T.Deeban

Hello everybody! I am a snack food and my native is United States. I was first popularized by Rebecca Webb Carranza in the year 1940. I have a triangular shape and I had become direct competitor of Corn chips in late 1970's. Commercially, I have many brand names such as Phileas Fogg snacks, Tostitos, Doritos, and Don Tacos. My main ingredients are corn, vegetable oil, salt and water. I provide you with 465 calories per 100gm and contain 88 milligrams of sodium in a 1 ounce serving which gives you a salty flavour. In United States every year February 24 I am celebrated nationally. Guess who am I?

### COCOA TREE

ANSWER FOR THE PREVIOUS EDITION

### MYTH : CORNED BEEF IS AN IRISH-AMERICAN INVENTION

G.P.Anbarasan

The Ubiquity of corned beef and cabbage remains enshrined in the American imagination as the quintessentially Irish dish. The Corned beef is originally originated from England. The main reason for the popularity of corned beef among the Irish Americans was widely available at reasonable price. During 18<sup>th</sup> century corned beef was the major export from the Irish. It was the main food during world war 2. Eventhough the name "corned beef" isn't from Ireland, it is named originally from 'Corn' from the Germanic word "kurnam", meaning "large, coarse pellets of salt" wherein England large kernels of salts were used to preserve the beef.

## Industrial Updates- Salted Foods

Karishma. A

**S**alt is one of the important flavours to be added in our diet. Salt act as important electrolytes in the body. They help in fluid balance, nerve transmission and muscle function. Some foods naturally contain salt while in others they are added. Most of our snack item we consume are salted which is added artificially. People of all age group depend on these snack item. As the people demand increase there are many snack industries developing enormously. These snack items may not have much nutritional qualities like the natural food but they liked by many people as they are ready to eat and for its uniqueness in taste.

### Britannia Industries Limited

BIL was initially launched in 1892 with its headquarters in Kolkata. It is part of Wadia Group headed by Nusli Wadia. The company sells its Britannia brands of biscuits, bread and dairy products worldwide. The brands of biscuits include Vitamaria gold, Tiger, Nutrigo, Good day, 50 50, Treat, Pure magic, Milk bikis, Bourbon, Nice time and Little hearts. 15% of their production is through green fuel which is eco-friendly. The fun mix of completely two opposite flavours, sweet and salt, Britannia Crackers 50 50 was introduced in 1993. "We are redefining bakery with the launch of Baked Salted Snacks" quoted Mr. Varun Berry, The Managing Director, Britannia Industries Limited in a recent press meet. Their recent product launches were 'Treat Stars' and 'Treat Burst'. Their priority is to scale up the recent product launches and to achieve profitable growth.

### Hindustan Unilever Limited

Kissan was first introduced by Britishers in 1934. In 1993, Kissan was acquired by Brooke Bond India and now an integral part of Hindustan Unilever Limited. The Hindustan Unilever Limited with its brand Kissan holds a share of more than quarter of the market and the GD foods with its top brands. It offers 19 different sauces in India-Twist sweet & spicy sauce, Fresh tomato ketchup, twist chilly tomato sauce, etc...Kissan as a part of HUL, spends heavy amount in marketing the brand with the focus of its ingredients used in its products. Kissan campaign - 'Kissanpur' has won about 35 awards all over India. The ketchup uses 100 percent of its tomatoes from sustainable sources.

### PepsiCo

Lay's is the name of brand with number of potato chips varieties. Lay's was available in the market since 2010. It is

been owned by PepsiCo. PepsiCo was introduced in 1965 with the merger of Pepsi-Cola and Frito Lay. PepsiCo Asia, Middle East and Africa (AMEA) which includes beverage, food and snack businesses in AMEA, excluding South Africa either independently or through conjugation with third parties. PepsiCo has ranked 48<sup>th</sup> on the Fortune 500 list (2019). It has also ranked 4<sup>th</sup> on Gartner supply chain top 25 (2019). PepsiCo includes Lay's, Kurkure, Doritos, Cheetos and Smith and many others. Frito Lay's has variety of flavours. It also offers lightly salted potato chips which has 50% less sodium than their traditional counterparts. Lay's chips are 100% vegetarian and trans-fat free. Lay's chips are made in sunflower, corn or canola oil. Baked chips are made in cheddar, barbeque, sour cream and onion and in original flavours.

Reference:<http://www.pepsicoindia.co.in/Purpose>

## IMPACTS OF SALTS

K.Abinaya.,Charulatha.K

**S**odium chloride contains 40% sodium and 60% chloride .It flavors food and is used as binder and stabilizer and food preservative, as bacteria cannot thrive in the presence of high amount of salt. We cannot live without sodium because, the human body requires a small amount of sodium to conduct nerve impulses, contract and relax muscles and maintain the proper balance of water and minerals. Salt can also counteract bitter flavors in foods.It is used to de-bitter cruciferous vegetables like broccoli and olives. It is estimated that we need about 500 mg of sodium daily for these vital functions. But too much sodium in the diet can lead to high blood pressure, heart disease and stroke. It can also cause calcium losses, some of which may be pulled from bone. Some foods like meats, eggs, sea foods, some vegetables and dairy products naturally contain some amount of salt or sodium. Some examples of salted foods

we consume daily are breads, rolls, cured meat, Instant Noodles, mixed nuts, spicy chicken tenders, French fries, Burger and sandwich.

### Too little salt

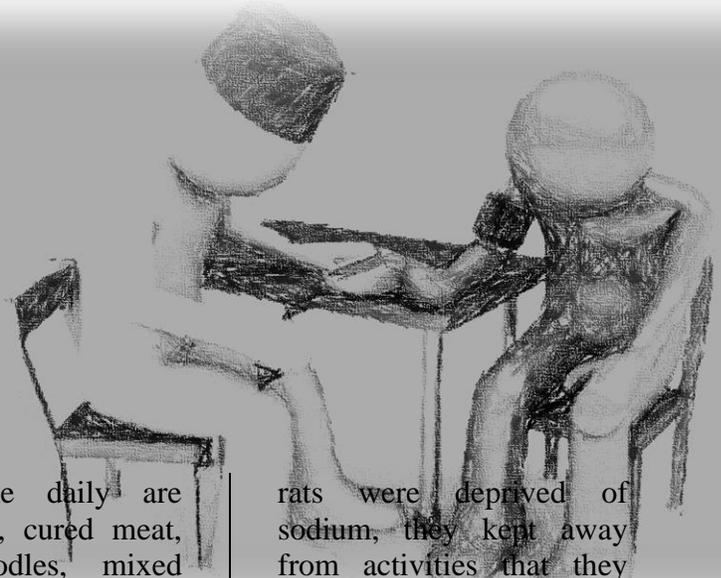
Low sodium levels can result if there is too much fluid in the body, for example, because of fluid retention. Diuretics are given in this case, to reduce fluid retention. Other causes of low sodium in the body include, Addison disease, a blockage in the small intestine, diarrhea and vomiting an underactive thyroid, heart failure, drinking too much water burns

If sodium levels fall in the blood, this affects brain activity. The person may feel sluggish and lethargic. They may experience muscle twitches, followed by seizures, a loss of consciousness, coma, and death. If sodium levels fall quickly, this may happen very fast. For older people, symptoms can be severe. One study found that when

rats were deprived of sodium, they kept away from activities that they normally enjoyed. The researchers suggested that sodium could act as an antidepressant.

### Too much salt

Excess sodium intake has been linked to health problems, such as osteoporosis, kidney disease, and hypertension, or high blood pressure, which can lead to cardiovascular disease and stroke. The American Heart Association (AHA) explain that when there is too much sodium in the blood, it "pulls more water into the bloodstream." As the volume of blood increases, the heart has to work harder to pump it around the body. In time, this can stretch the walls of the blood vessels, making them more susceptible to damage. High blood pressure also contributes to the buildup of plaque in the arteries, leading to a greater risk of stroke and heart disease, among other problems. The



AHA urge people to consume more potassium at the same time as reducing their sodium intake. Potassium can lessen the negative effects of sodium. Sodium overstimulates the immune system, thus leading to autoimmune diseases such as lupus, multiple sclerosis, allergies, and other conditions. Researchers have found that children who consume salty foods are more likely to have a sugary drink with it. The combination could increase the risk of obesity.

### Why We Need Salt in Our Diet?

Salt helps thyroid function properly, it keeps the body hydrated, prevents low blood pressure and improves symptoms of Cystic Fibrosis. The body uses sodium to maintain fluid levels. A balance of fluid and sodium is necessary for the health of the heart, liver, and kidneys. Salt plays a crucial role in maintaining human health.

### What should my daily sodium intake be?

The American Heart Association recommends no more than 2,300 milligrams (mg) a day and moving toward an ideal limit of no more than 1,500 mg per day for most adults.

### REFERENCE

1. <http://www.medicalnewstoday.com>.
2. <http://www.thespruceeats.com>

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## ALLERGY ALERT

### Ventharish raj.G.K

Lay's a potato chips company owned by PepsiCo through Frito-Lay. Since 1965, it has been issuing a voluntary allergy alert on undeclared milk in Lay's lightly salted barbecue flavored potato chips. Frito-Lay issued a voluntary recall of 21.262 gram of bags of Lay's Lightly Salted Barbecue Flavored Potato Chips because they may contain undeclared milk ingredients. People who have an allergy or severe sensitivity to milk run the risk of a serious or life-threatening allergic reaction if they consume the product contained inside the recalled potato chips bags. The recalled products have a guaranteed fresh date of 27 AUG 2019 and a nine character manufacturing code that includes the numbers "29" in the second and third position listed below the guaranteed fresh date. In addition the recalled bags will have a UPC code of "28400 63242" listed on the bottom left side of the back of the bag.



Reference: [www.fritolay.com](http://www.fritolay.com)

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## CURRENT JOB OPPURTUNITIES

Dharani.N

### Restaurant assistant manager

Recruiter: Location: Chandigarh

Qualification: High School Diploma is required. Bachelor's degree in restaurant management will help assistant managers become full time managers. Most training is done on the job and will include proper food handling and safety training.

About the Recruiter: Envisage Enterprise Private Limited is a private incorporated on 28 September 2012.It is classified as Non-govt Company and is registered at Register of Companies, Chandigarh.

### Food Sampler

Recruiter: B.SC -Kolkata-SSP SOLUTIONS

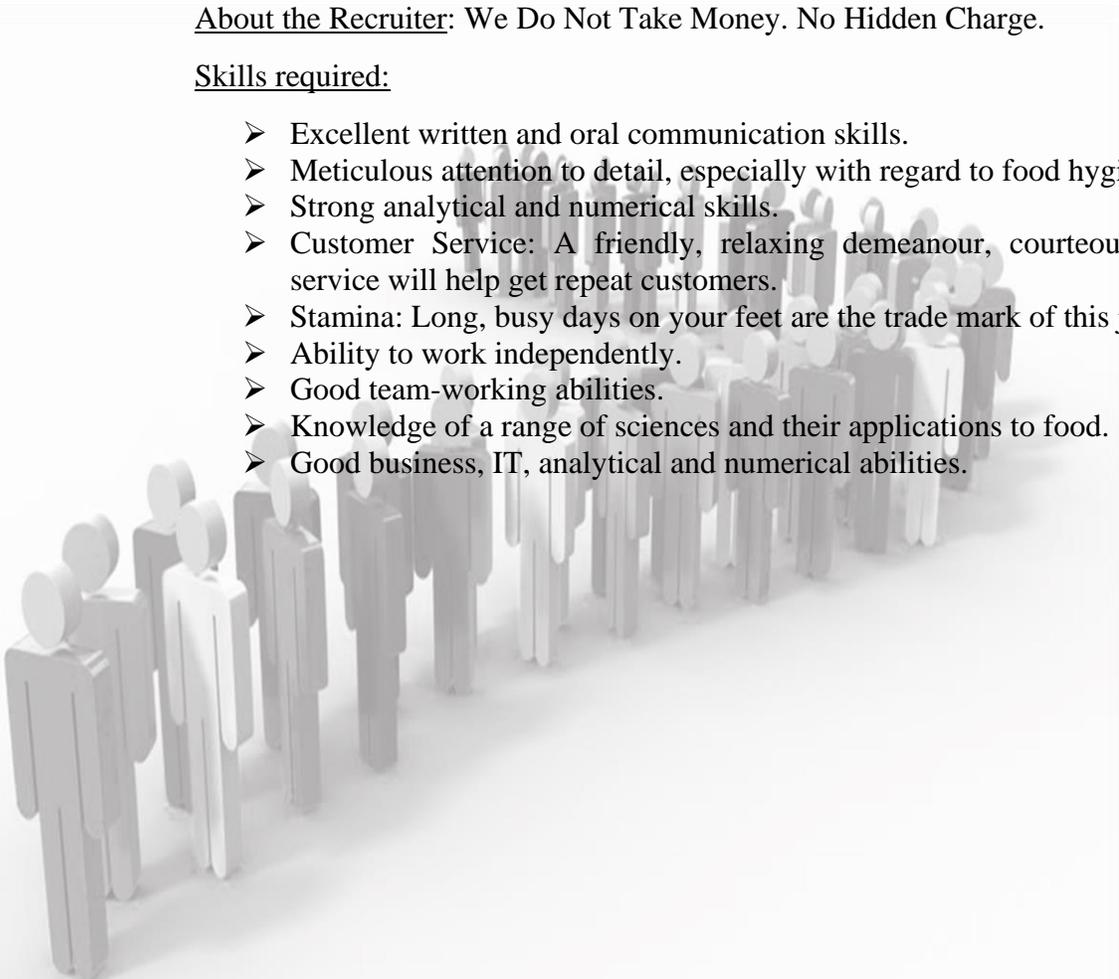
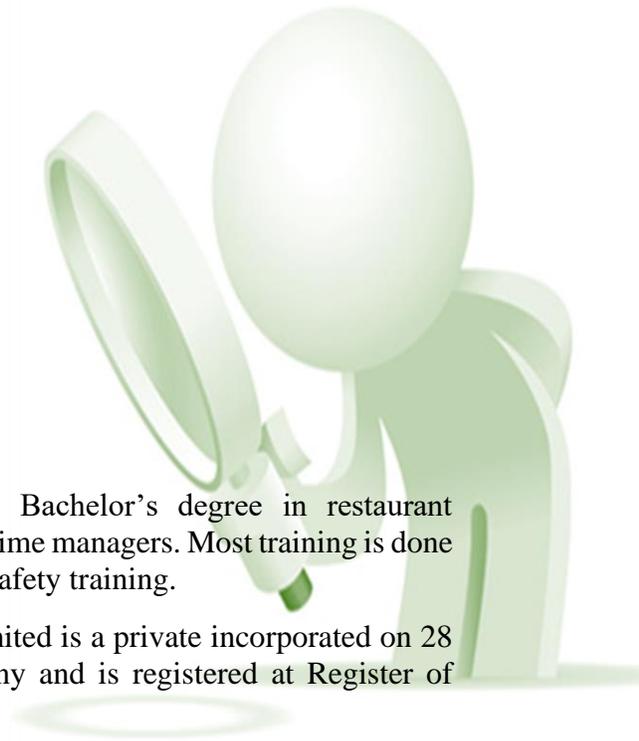
Location: Kolkata

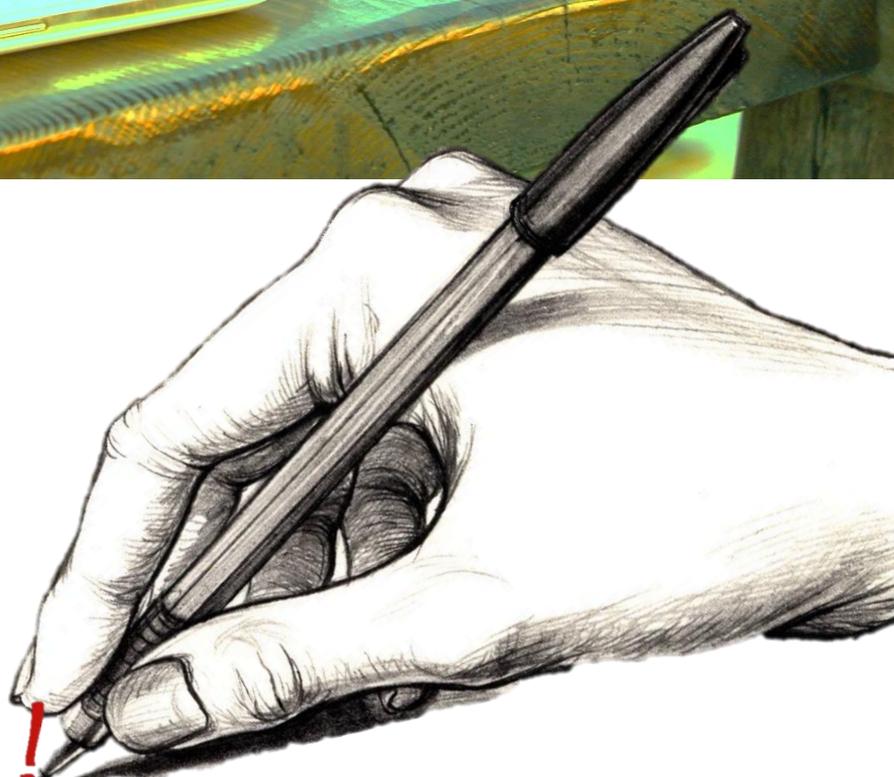
Qualification: B.Sc in Food Technology, B.Sc in Bio-Chemistry, B.Sc in Dairy Technology, B.Sc in any specialization.

About the Recruiter: We Do Not Take Money. No Hidden Charge.

Skills required:

- Excellent written and oral communication skills.
- Meticulous attention to detail, especially with regard to food hygiene and safety.
- Strong analytical and numerical skills.
- Customer Service: A friendly, relaxing demeanour, courteousness and quick service will help get repeat customers.
- Stamina: Long, busy days on your feet are the trade mark of this job.
- Ability to work independently.
- Good team-working abilities.
- Knowledge of a range of sciences and their applications to food.
- Good business, IT, analytical and numerical abilities.





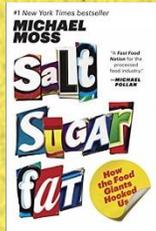
COMICS !!



## BOOK ALERT

Prabha.M

SALT SUGAR FAT :How the Food Giants Hooked Us Paperback-February 18,2014 by Michael Moss(author)



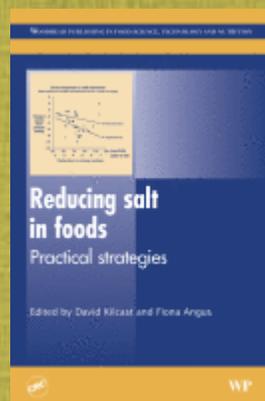
About the author:

Michael Moss was awarded the Pulitzer Prize for explanatory reporting in 2010, and was a finalist for the prize in 1999 and 2006. He is also recipient of a Loeb Award and an Overseas Press Club citation. Before coming to The New York Times, he was a reporter for The Wall Street Journal, Newsday, and the Atlanta Journal-Constitution. He lives in Brooklyn with his wife and two sons.

- Product details
- Paperback :480 pages
- Publisher :Random House Trade Paperbacks; Reprint edition (February 18, 2014)
- Language: English
- Biography
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## Book 2007: REDUCING SALTS IN FOODS

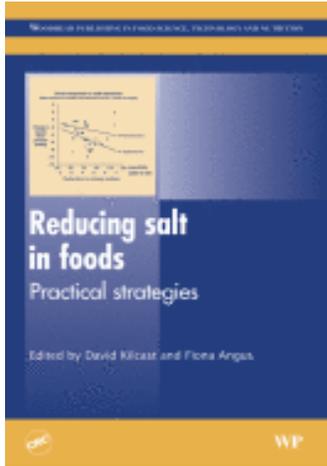
- A volume in Woodhead Publishing Series in Food Science Technology and Nutrition



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- You currently don't have access to this book, however you can purchase separate chapters directly from the table of contents or buy the full version.

# REVIEW OF A BOOK

Kumaresan.P



Concerns have grown that consumption levels of salt are well above those needed for nutritional purposes and that this can lead to adverse effects on health, in particular cardiovascular

disease.

Concerns have grown that consumption levels of salt are well above those needed for nutritional purposes and that this can lead to adverse effects on health, in particular cardiovascular disease. Consumers are increasingly looking to reduce their salt intake, making salt reduction a priority for food manufacturers. This is not straightforward, though, as salt plays an important role in food preservation, taste and processability. Written by a team of international experts, Reducing salt in foods provides a unique review of current

- An essential reference for health professionals, governments and food manufacturers

knowledge in this field.

This book is divided into three parts and discusses the major issues concerned with salt reduction and how it may be achieved. Part one reviews the key health issues driving efforts to reduce salt, government action regarding salt reduction and the implications of salt labelling. Consumer perception of salt and views on salt reduction and are also discussed. The second part focuses on the technological, microbiological and sensory functions of salt and strategies that can be taken to reduce salt. The final part of the book outlines strategies which have been taken to reduce salt in particular food groups: meat and poultry, seafood, bread, snack foods, dairy products and canned foods.

Reducing salt in foods is an essential reference for health professionals, governments and food manufacturers.

### Key Features

- Discusses methods to reduce salt while maintaining food sensory quality, shelf-life and processability
- Provides a unique review of current knowledge in this field



## SALT SECRETS

Vidyasree.K

- During the 20<sup>th</sup> century, pound bars of salt were the basic currency in Ethiopia.
- In the Middle Ages, salt was so expensive it was sometimes referred to as 'white gold'.
- Salary comes from 'salarium', which means salary in Latin and has the root 'sal', or salt.
- Sea salt may sound healthier than table salt, but most sea salts contain roughly the same proportion of sodium about 40 per cent-as table salt.
- In the 1920s, salt became a primary tool in the fight against goiter, a thyroid disorder caused by iodine deficiency. Today, only about 53 percent of table salt sold through retail is iodized.
- The number one use of salt in the United States isn't on food at all. In 2016, about 44 percent of salt went toward de-icing roads, according to the U.S. Geological Survey.
- A product is labelled sodium-free or salt-free if it has less than 5 mg of sodium, according to federal guidelines.



- Salt is an essential nutrient and drinking too much water can flush it away. Too little salt in our bodies is called hyponatremia.
- There's a hotel in Bolivia made almost entirely of salt, complete with salt beds and chairs.
- Drowning in salt water is different than drowning in fresh water. It takes longer, and salt water draws blood from the cells into the lungs, which makes you drown in your own blood.
- Every cell in the body contains salt. An adult body contains approximately 250 grams.
- It is the only family of rocks regularly eaten by humans
- Eating too much salt can kill you. In fact salt eating was a method of suicide in ancient China.
- Salt can stimulate the same regions that intoxicants do.

**Reference:**<https://www.foodrepublic.com/2011/08/25/10-facts-and-myths-about-salt><https://listverse.com/2009/05/11/15-fascinating-facts-about-salt>

eat less  
SALT!