

HALITE; THE ROCK SALT: ENORMOUS HEALTH BENEFITS**Apurbo Sarker, Arittra Ghosh, Kinsuk Sarker, Debojyoti Basu and Prof. Dr. Dhrubo Jyoti Sen**Department of Pharmaceutical Chemistry, Shri Sarvajanic Pharmacy College, Gujarat
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Pharmaceutical Chemistry,
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384001, Gujarat, India.**ABSTRACT**

Rock salt is a natural supplement that can provide health benefits. It is found in most drug stores, supermarkets and online pharmacies, rock salt is available as a powder, pill supplement, or even as a liquid extract additive in health beverages. Traditionally used as a spice or flavor addition in cooking, rock salt is also available as an over-the-counter health supplement. Consult your doctor before consuming rock salt for the treatment of any condition. One of the main health benefits of rock salt is the large number of naturally occurring minerals found within the supplement. Crystallized rock salt contains 84 of the 92 trace elements currently identified in science. Many of these minerals, such as calcium and magnesium, are vitally important to normal organ function within the body. If you have low levels of these natural elements, you can benefit greatly from taking rock salt as a dietary

supplement. Furthermore, as the website suggests, rock salt can also promote activity within the body that involves other trace elements that require additional mineral interaction in order to benefit the body. Rock salt can also help promote a healthy metabolism within the body, which can lead to improved body system function. Introducing rock salt to the body allows for increased water absorption within the digestive system and surrounding organs. Due to this natural effect, nutrients and minerals beneficial to the body are more easily absorbed in the process. The website adds that normal cell function and communication is only possible when the appropriate level of salt is absorbed within the blood. The website suggests that excessive salt intake may lead to hardening of the arteries, but further research is needed in order to substantiate this claim. Rock salt lamps serve as natural air ionizers that can remove harmful ions from the air we breathe. These lamps can help if you have respiratory issues, such as asthma and bronchitis, by removing ions in the air that are harmful to inhale.

KEYWORDS: Himalayan salt, Halite, Saindhava lavana, Sendha namak.

INTRODUCTION

Himalayan salt is rock salt or halite from the Punjab region of Pakistan. It is mined at the Khewra Salt Mine in Khewra, Jhelum District, Punjab, which is situated in the foothills of the Salt Range hill system in the Punjab province of the Indo-Gangetic Plain. It is located approximately 190 miles (310 km) from the Himalayas, 160 miles (260 km) from Lahore, and 185 miles (298 km) from Amritsar, India. Himalayan salt is conceptually similar to table salt plus mineral impurities. It consists of 95-98% sodium chloride, 2-4% polyhalite (potassium, calcium, magnesium, sulfur, oxygen, hydrogen), 0.01% fluoride, 0.01% iodine and small amounts of numerous trace minerals. The salt crystals have off-white to transparent color while impurities in some veins of salt give it a pink, reddish, or beef red color. The reddish color is due to the presence of elements in polyhalite and trace minerals. Halite is often used both residentially and municipally for managing ice. Because brine (a solution of water and salt) has a lower freezing point than pure water, putting salt or saltwater on ice that is near 0°C (32°F) will cause it to melt. (This effect is called freezing-point depression.) It is common for homeowners in cold climates to spread salt on their sidewalks and driveways after a snow storm to melt the ice. It is not necessary to use so much salt that the ice is completely melted; rather, a small amount of salt will weaken the ice so that it can be easily removed by other means. Also, many cities will spread a mixture of sand and salt on roads during and after a snowstorm to improve traction. In addition to de-icing, rock salt is occasionally used in agriculture. An example of this would be inducing salt stress to suppress the growth of annual meadow grass in turf production.^[1]

Salt is also used extensively in cooking as a flavour enhancer and to cure a wide variety of foods such as bacon and fish. Larger pieces can be ground in a salt mill or dusted over food from a shaker as finishing salt. Some cultures, especially in Africa, prefer a wide variety of different rock salts for different dishes. Pure salt is avoided as particular colors of salt indicate the presence of different impurities. Many recipes call for particular kinds of rock salt and imported pure salt often has impurities added to adapt to local tastes.

Saindhava lavana or rock salt is considered best among all salts. It is the advised for daily use as per Ayurveda. Its qualities, usage and health benefits are quite different from regular salt.

Sanskrit Synonyms: Saindhava, Sheetashiva (because it is coolant in nature), Sindhuja (because it is found in Sindh region of Punjab), Naadeya (because it is found in the banks of rivers), Manimantha.

Vernacular names: English name (Himalayan salt, Himalayan rock salt, Himalayan pink salt), Hindi name (Sendha namak, Sendha lon), Marathi name (Shende Lon), Gujarati name (Sindhalun), Bengali name (Saindhava Lavan), Tamil name (Intuppu). Rock salt is another name for the mineral halite which is commonly known as sodium chloride and has a chemical formula NaCl. It is commonly known as **Sendha namak** in Hindi and **Saindhava Lavan** in Sanskrit. It is mostly colorless or white though its color may vary from light blue, dark blue, purple to pink, red, orange, yellow or grey depending upon the amount and type of impurities present in it. It is formed by the evaporation of salty water from large water bodies such as inland marginal seas, enclosed bays and estuaries in semi-arid regions where it is found in enormous deposits. In the Indian subcontinent, it is found in the Himalayan region where it known as the Himalayan crystal salt.^[2]



Figure-1: Rock salt

There is a difference between the rock salt and the common salt that we mostly consume. Sendha namak is the purest form of rock salt that is available in India in small quantities. Thus, it is costlier than commercial salt. Unlike commercial salt which is iodized, rock salt is more granular with large chunky crystals, has less salty taste and is not chemically processed. It can be used as a healthy substitute of common salt as it is rich in minerals and does not pose health problems like high blood pressure, puffiness in the body or eyes. It is used in making ice creams as it lowers the freezing point when packed with ice in the ice cream maker, thus making the ice cream colder. It is mostly used for seasoning and preservation. Apart from consumption, it is stocked in massive bags for the purpose of keeping down ice on the roads in winter.

Rock Salt: Health Benefits

The nutritional value of the rock salt is so high that they have different effects on different parts of the human body.

As pointed out earlier, rock salt is the purest form of salt which is devoid of environmental pollutants and chemical components. It contains 84 out of the 92 trace elements required by the body including calcium, iron, zinc, potassium, magnesium, copper and so on. Thus, it is available in drug stores and pharmacies in the form of powder, pill supplement or even as a liquid extract in health beverages. Some of its health benefits are as follows:

1. It aids in digestion and is prescribed for laxative and digestive disorders. It improves appetite, removes gas and soothes heartburn.
2. It facilitates the cellular absorption of minerals. It plays an important role in replenishing the body's electrolytes and maintaining the pH balance. By stimulating blood circulation and mineral balance it removes toxic minerals and refined salt deposits.
3. It stabilizes blood pressure by maintaining a balance of high and low blood pressures.
4. It aids in weight loss by equalizing minerals which inhibit cravings and eliminate fat dead cells.
5. Rock salt is used as a home remedy for curing many disorders and ailments such as rheumatic pain and herpes, inflammation and irritation from insect bites.
6. Consumption of rock salt along with lemon juice can help in eliminating stomach worms and controlling vomiting. It also provides relief against influenza.
7. It is beneficial for people suffering from respiratory problems and sinus. Gargling with rock salt helps relieve throat pain, throat swelling, dry cough and tonsils. Rock salt is dissolved in water to prepare brine which is used in facial steams for patients suffering from asthma, bronchitis or other nose and ear discomforts.
8. Having brine made with rock salt with a glass of spring water can provide relief in case of arthritis, rheumatism, kidney and bladder stones. Poultice made from this brine can be used to treat wounds, acne or pain due to gout or arthritis.
9. Rock salt can be used as a teeth whitener or mouth freshener. Gargling with rock salt provides relief against sore throat.
10. It can be used as a bath or body salt. You can mix a table spoon of rock salt in your bath water to have a relaxing bath. Bathing in rock salt water combats water retention, soothes

sore muscles, regulates sleep, detoxifies your body and lowers your blood pressure. It also eases stress and body pains.

11. One of the most amazing benefits of rock salt is that it overcomes muscle cramps. Those experiencing muscle cramps can mix a spoon of rock salt in water and sip it to get relief within a few minutes.

12. By providing all the essential trace elements, it greatly improves the immune system. It also improves the respiratory, circulatory and nervous systems to a significant extent.

13. It helps in maintaining the flow of salivary and digestive juices. You can add a pinch of rock salt with few shredded mint leaves to your lassi to make a refreshing beverage.

14. Rock salt can be stored in a copper vessel till it becomes red.

15. It strengthens the bones and connective tissue.



Figure-2: Table salt & Rock salt

Rock Salt: Skin Benefits

Apart from its numerous health benefits, there are also many rock salt uses for your skin in many ways, thanks to its cleansing and detoxifying properties. Some of its benefits for skin are as follows.

1. Accumulation of dead skin cells is responsible for causing a rough, dull and aged appearance of your skin. Rock salt exfoliates the dead skin cells and protects the natural layer of your skin, thus resulting in a youthful and glowing skin.

2. It also strengthens the skin tissue to rejuvenate your skin, thus making it look younger and firm. Massaging your skin with a salt scrub exfoliates and refines your skin, leaving it clean and refreshed and eliminating dead skin cells that cause your skin to look dull.

3. Being rich in minerals, rock salt can be used as a body scrub as a perfect substitute of spa standard products made at home.

4. It has excellent cleansing properties. The salt grains can cleanse your skin pores better than any soap or cleanser and makes your skin breathe easily. You can mix a table spoon of rock salt with your cleanser or face wash and rub your face with it for a glowing skin.
5. Soaking your body in rock salt water enables the minerals and nutrients in the salt to be delivered to your cells in the form of ions to facilitate their absorption by your body. This causes an improvement in the appearance of your skin by increasing circulation.
6. Since it does not have a drying effect on the skin, it can be used as foot soak, foot scrub or a hand scrub.
7. Rock salt is effective in removing yellowness under your nails, thus making them shine beautifully.
8. Rock salt mixed with the juices of lemon and ginger when taken in the morning and evening on a daily basis can help in curing skin enlargement.

Rock Salt: Hair Benefits

Though it might appear unlikely, rock salt can actually be beneficial for your hair in many ways. Due to its cleansing and exfoliating properties, it is often used as an ingredient in shampoos and hair treatments. Some of its benefits for hair are given below:

1. Due to its excellent cleansing properties, rock salt helps in removing dead skin cells and dirt from your hair without stripping off its natural healthy oil. All you need to do is mix salt in your shampoo. Wash your hair with this mixture and rinse with cold water to remove the residue. Make sure not to do the usual lather.
2. You can mix equal parts of your conditioner and rock salt and apply it on your hair. Wash off after 20-30 minutes. This will add volume to your hair.

Halite commonly known as rock salt is a type of salt, the mineral form of sodium chloride (NaCl). Halite forms isometric crystals. The mineral is typically colorless or white, but may also be light blue, dark blue, purple, pink, red, orange, yellow or gray depending on the amount and type of impurities. It commonly occurs with other evaporite deposit minerals such as several of the sulphates, halides and borates.^[3-5]

It is available from mines of Punjab. It is of two varieties—

1. Shweta Saindhava—(White in colour)
2. Rakta Saindhava—(Red in colour). Anyone of these can be regularly used in the name of Rock salt.

Chemical composition

Sodium chloride is the major ingredient making upto 98%. It contains many useful minerals and elements. It also contains Iodine, Lithium, Magnesium, Phosphorus, Potassium, Chromium, Manganese, Iron, Zinc, Strontium, etc.

Table-1: 84 natural elements of rock salt needed by body

Rock Salt Mineral Elements for human homeostasis						
Hydrogen	Fluoride	Chloride	Iron	Arsenic	Niobium	Indium
Lithium	Sodium	Calcium	Cobalt	Selenium	Molybdenum	Tin
Beryllium	Magnesium	Scandium	Nickel	Bromide	Ruthenium	Antimony
Boron	Aluminum	Titanium	Copper	Rubidium	Rhodium	Tellurium
Carbon	Silicon	Vanadium	Zinc	Strontium	Silver	Iodide
Nitrogen	Phosphorus	Chromium	Gallium	Yttrium	Cadmium	Cesium
Oxygen	Sulfur	Manganese	Germanium	Zirconium	Technetium	Barium
Lanthanum	Cerium	Praseodymium	Samarium	Europium	Gadolinium	Terbium
Dysprosium	Holmium	Erbium	Thulium	Ytterbium	Lutetium	Hafnium
Tantalum	Tungsten	Rhenium	Osmium	Iridium	Platinum	Gold
Mercury	Thallium	Lead	Bismuth	Polonium	Astatine	Francium
Radium	Actinium	Thorium	Protactinium	Uranium	Neptunium	Plutonium

Qualities of Saindhava lavana

Taste–Salt, slightly sweet taste, **Potency**–Cold, **Qualities**–Light, Unctuous, **Effect on Tridosha**–We have learnt that salt taste usually increases Pitta, but Saindhava Lavana, being cold in potency helps to balance Pitta. Because of its Salt taste, it balances Vata and it helps to relieve chest congestion due to sputum accumulation, because it also relieves Kapha. Hence it is one of the rare Ayurvedic substances that balance all the three Doshas. As per Charaka, it is one of those ingredients that can be taken on daily basis. (Pathya). Rochana–improves taste, Dipana–improves digestion strength, Vrushya–acts as aphrodisiac, Chakshushya–good for eyes, helps to relieve infection, Aviidahi–(unlike regular salts), Saindhava Lavana does not cause burning sensation, Hrudyā–good for heart, Hikkanashana–useful in hiccups.

Sendha namak Use in respiratory disorders

Kapha vilayana, Kapha chedana–It helps to dissolve/disintegrate Kapha. This property is the reason, it is included in Lavana Bhaskar Churna–used in respiratory disorders (also in digestive disorders), because it helps to dissolve or disintegrate and expel sputum.

Use in joint disorders of stiffness For the same reason, it is used in many medicines that are used to relieve joint stiffness–such as Dhanwantaram Tailam, Bihat Saindhavadi and Saptavinshati Guggulu. Usually in cases of Rheumatoid arthritis, where there is stiffness of

joints. Rock salt is used as an ingredient in oils for external application and tablets for oral intake.

How to use rock salt for fomentation

This is useful in cases of joint disorders, or wherever Kapha is more, as in sinusitis. In case of joint disorders with stiffness, apply the oil prescribed by your doctor; leave it for 10–15 minutes. Then, take a cup of Sendha namak inside a cloth. Make it into pack. Heat it on a pan, check for heat tolerance on your skin. Once it is tolerable, gently apply this rock salt pack over the affected joint. You can re-heat and re-apply on the joints. You can do this for 4–5 minutes. Even while doing Nasya therapy, after doing massage with suitable oil (as advised by doctor), you can give hot fomentation with the same technique, before using Anu taila as nasal drops. It helps to liquify sputum and to relieve sinusitis, migraine etc.

Use of rock salt in Basti

Basti is a Panchakarma–enema procedure. While formulating the basti liquid, rock salt is added to prepare an emulsion. It helps to dissolve and expel Doshas from intestines.

Use of Saindhava in obesity and high cholesterol—because it has the dissolving and disintegrating effect, it is widely used in anti-obesity products like Lavana taila and anti-cholesterol products.

Where to buy rock salt

Within India, it is available in any Ayurvedic medical shop across India. Outside India, it is available in Amazon website.

Use in gastritis and bloating

Rock salt is widely used as ingredient in many stomach care products like Hingwastak Churna, because it improves digestion without causing stomach irritation, without worsening gastritis. Vibandhaghna—relieves constipation, bloating. **Culinary uses:** Rock salt is famously used in making many yummy dishes including Pani Puri, Masala Puri, Ice creams etc. Many households use rock salt as the main salt, in place of common salt. **Rock salt for digestive disorders:** It aids in digestion by stimulating digestive fire, balances natural production of HCl and is prescribed for laxative and digestive disorders. It improves appetite, removes intestinal and abdominal gases, cramps and soothes heartburn.

Rock salt side effects—It is not indicated in people with high blood pressure, edema and water retention.

In very high doses, it may increase blood pressure.^[6]

CONCLUSION

Rock salt contains 85% of NaCl and 15% of trace minerals (84 elements) whereas common salt contains 97% NaCl and 2.5% additives. 15% of trace minerals of 84 elements give extra energy to the homeostatic system in the body system to give a healthy condition. Rock salt is used as a home remedy for curing many disorders and ailments such as relief from **rheumatic pain and herpes, inflammation** and irritation from **insect bites**. Consumption of rock salt along with lemon juice can help in **eliminating stomach worms** and controlling vomiting. It also provides relief against pain. It is beneficial for people suffering from respiratory problems and sinus. Gargling with rock salt helps relieves in **throat pain, throat swelling, dry cough and tonsils**. Rock salt is dissolved in water to prepare brine which is used in facial steams for patients suffering from asthma, bronchitis, rhinitis or other nose and ear discomforts. Rock salt can be used as easy remedy for **Halitosis (Bad breath)** a teeth whitener or **mouth freshener**. Gargling with rock salt provides relief against sore throat. Its pungent smell suppresses the pungent odour of undigested food. One of the most amazing benefits of rock salt is that it overcomes **muscle cramps**. Those experiencing muscle cramps can mix a spoon of rock salt in water and sip it to get relief within a few minutes. By providing all the essential trace elements, it is a fast **nervous stimulant, relaxes body and mind**, it greatly improves the respiratory, circulatory and nervous systems to a significant extent as like an aspirin. It helps in maintaining the flow of **salivary and digestive juices**. You can add a pinch of rock salt with few shredded mint leaves and coriander leaves to *curd*, *lassi* to make a refreshing beverage. It **strengthens the bones** and connective tissue. It increases blood level due to its Iron content hence useful in hemoglobin.

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