

Salt

Written by W.J.Pais

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Salt is a dietary mineral composed primarily of **sodium chloride** that is essential for animal life, but toxic to most land plants. Salt flavor is one of the basic tastes, an important preservative and a popular food seasoning.

Salt for human consumption is produced in different forms: **unrefined salt** (such as sea salt), **refined salt** (table salt), and **iodized salt**.

It is a crystalline solid, white, pale pink or light gray in color, normally obtained from sea water or rock deposits. Edible rock salts may be slightly grayish in color because of this mineral content.

Chloride and sodium ions, the two major components of salt, are necessary for the survival of all known living creatures, including humans.[citation needed] Salt is involved in regulating the water content (fluid balance) of the body. Salt cravings may be caused by trace mineral deficiencies as well as by a deficiency of sodium chloride itself. Conversely, overconsumption of salt increases the risk of health problems, including high blood pressure.

Harmful effects of dietary salt in addition to hypertension.[] []
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Unrefined salt

Refined salt, which is most widely used presently, is mainly sodium chloride. Food grade salt accounts for only a small part of salt production, the majority is sold for industrial use.

Salt is obtained by evaporation of sea water, usually in shallow basins warmed by sunlight; Salt so obtained is now often called sea salt or solar salt. Today, most refined salt is prepared from rock salt: mineral deposits high in salt. These rock salt deposits were formed by the evaporation of ancient salt lakes, and may be mined conventionally or through the injection of water. Injected water dissolves the salt, and the brine solution can be pumped to the surface

where the salt is collected.

After the raw salt is obtained, it is refined to purify it and improve its storage and handling characteristics. Purification usually involves recrystallization. In recrystallization, a brine solution is treated with chemicals that precipitate most impurities (largely magnesium and calcium salts).

Multiple stages of evaporation are then used to collect pure sodium chloride crystals, which are kiln-dried.

Table salt

Table salt is refined salt, 99% sodium chloride.[It usually contains substances that make it free-flowing (anti-caking agents) such as sodium silicoaluminate or magnesium carbonate. It is common practice to put a desiccant, such as a few grains of uncooked rice, in salt shakers to absorb extra moisture and help break up clumps when anti-caking agents are not enough.

Salty condiments

In many East Asian cultures, salt is not traditionally used as a condiment. However, condiments such as soy sauce, fish sauce and oyster sauce tend to have a high salt content and fill much the same role as a salt-providing table condiment that table salt serves in western cultures.

Harmful effects of dietary salt in addition to hypertension.

<http://www.ncbi.nlm.nih.gov/pubmed/11967714>

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In addition to raising the blood pressure dietary salt is responsible for several other harmful effects. The most important are a number which, though independent of the arterial pressure, also harm the cardiovascular system. A high salt intake increases the mass of the left ventricle, thickens and stiffens conduit arteries and thickens and narrows resistance arteries, including the coronary and renal arteries. It also increases the number of strokes, the severity of cardiac failure and the tendency for platelets to aggregate. In renal disease, a high salt intake accelerates the rate of renal functional deterioration. Apart from its effect on the cardiovascular system dietary salt has an effect on calcium and bone metabolism, which underlies the finding that in post-menopausal women salt intake controls bone density of the upper femur and pelvis. Dietary salt controls the incidence of carcinoma of the stomach and there is some evidence which suggests that salt is associated with the severity of asthma in male asthmatic subjects.

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