

SALT

What is salt?

Salt (sodium chloride) is a chemical made up of two components. When positively charged electrons of a soft metal called sodium combine with negatively charged electrons of a gas known as chlorine, they form an ionic bond. This bond is one of the strongest chemical structures there is. Even dissolving the salt in water doesn't affect the magnetic force of the electrons.

Salt has been an important seasoning for many centuries and fulfills three major functions in cooking: it seasons and preserves food in addition to providing nutrients necessary for the body's fluid balance. Salt has been taxed by governments, trading in commerce, offered to the gods and given as part of a salary.

Types of salt

Some types of salt have risen to gourmet status, along with a corresponding price tag. Processing methods and location of origin figure into pricing. Certain types of salt are better for some cooking or preserving methods.

Most common salt is mined from salt deposits left by salt lakes around the world which have dried up over the past millenia as the earth's surface has changed. Sea salt is distilled from the ocean, a more expensive process, resulting in a heftier price. Here are the most common types of salt:

Table salt: This is the common salt normally found on every table. It is a fine-ground, refined rock salt with some additives to keep it free-flowing. Smaller particles mean more particles per measure and more surface area than coarser grinds; thus, use about half the amount if you're substituting for coarse salt.

Coarse salt: Coarse refers to the grind. The jagged edges and large crystals make this a good choice for sprinkling on pretzels or corn on the cob because the edges tend to cling and the salt does not readily melt.

Iodized salt: Salt which has iodine (sodium iodide) added. Iodine is a mineral necessary to the body to prevent hypothyroidism and some countries actually require iodine added by law. For those who live in areas away from oceans, iodized salt is an easy way to get this necessary nutrient into the diet. Surprisingly, iodized salt contains a small amount of sugar (usually indicated as dextrose in the ingredients listing), without which the salt would turn yellow due to oxidation of the iodine.

Kosher salt: This is a coarser grind of salt with large, irregular crystals. It contains no additives. Kosher dietary laws strictly require as much blood as possible be removed from meat before cooking. This coarse grind performs the job admirably. It is a favorite with not only Jewish cooks, but also professional and gourmet cooks who prefer its brighter flavor and texture. When substituting for table salt, you may need more to taste since it seems less salty. The size and shape of the crystals cannot permeate the food as easily as fine grades. Coarse pickling salt can be substituted.

Celtic salt: This is the expensive type. It is harvested via a 2,000 year-old method of solar evaporation from the waters of the Celtic Sea marshes in Brittany, France. Its flavor is described as mellow with a salty, yet slightly sweet taste. Even more expensive and rare is *fleur de sel*, from the salt marshes in Guérande, which is said to form only when the wind blows from the east.

Dairy salt: See pickling salt. It's used to pull moisture from cheeses to cure them.

Rock salt: Less refined and grayish in color, this is the chunky crystal salt used in ice cream machines. This type is generally not used as an edible flavoring mixed into foods, but in cooking methods such as to bake potatoes or to encrust or embed meat, seafood or poultry for baking. Rock salt makes an impressive bed for oysters on the half shell. When using rock salt for cooking, be sure it is food-grade. Some rock salt sold for ice cream machines is not suitable for cooking.

Pickling salt: This fine-grained salt has no additives and is generally used in brines to pickle foods. Unlike table salt, the lack of additives will help keep the pickling liquid from clouding.

Sea salt: Distilled from sea waters, this form can be fine or coarsely ground. This is a less expensive version of Celtic salt. Some consider sea salt nutritionally better than rock salt because it naturally contains trace minerals, but the difference is too minute to note. It does, however, have a stronger and more interesting flavor.

Seasoned salt: Single or multiple herbs and spices are added to salt to make garlic salt, onion salt, and other mixes. If you are watching your salt intake, you're better off using the unsalted powdered or dried herbs and spices and controlling the salt as a separate ingredient. The main ingredient in seasoned salt is, after all, salt.

Popcorn salt: This super-fine grind (think of the texture of confectioners' sugar) of salt is generally colored yellowish-orange and is used on popcorn for both color and flavoring.

In the kitchen

Salt is a natural preservative which inhibits the growth of molds and bacteria. It literally pulls the life-sustaining moisture from those harmful bodies, making them unable to grow or reproduce. When used as a condiment or ingredient, it brightens food flavors and facilitates a balance between sweetness and acidity by decreasing the sourness of acid and increasing the sweetness of sugar.

You'll find some recipes call for a specific type or grind of salt beyond ordinary table salt. In some cases, it won't matter if you use table salt, but in others, it can make or break the dish. Your best bet is to follow the recommendation of the recipe author to achieve the desired result.

It may seem strange to think of salt being used as a fat-free method of cooking, but it works. Encase meat in a crust of salt and the salt draws out and absorbs the fat, while sealing in moisture and flavor, very much like old classic dishes using clay. The salt casing also reduces cooking time anywhere from one-third to one-half.

How much salt do you need? Here are some general guidelines:

- 1 teaspoon per quart for soups and sauces
- 2 teaspoons per pound for boneless raw meat.
- 1 teaspoon per 4 cups flour for dough.
- 1 teaspoon per two cups liquid for cooked cereal.
- 1 teaspoon per 3 cups water for boiled vegetables

Specialty Salts

Ittica d'Or Sicilian Sea Salt

This delicious sea salt is harvested from salt pans along the famous "salt road" between Trapani and Marsala, on the west coast of Sicily. The salt beds are managed completely by hand in a saline reserve protected from industry pollution. Relying on sun, wind, and the clean waters off of Sicily, the salt is unrefined, unwashed, and unaltered in any way and contains more magnesium, potassium and less sodium chloride than regular salt. It is delicate, with a complex balance of sea, brine, and minerals. Use as a condiment to highlight salads, to finish roasts and sauces, or to garnish bruschetta

Alaea Hawaiian Sea Salt – Hawaii

Alaea is the traditional Hawaiian table salt used to season and preserve. Alaea Hawaiian Sea Salt is non-processed and rich in trace minerals, all of which are found in seawater. A small amount of harvested reddish Hawaiian clay ('Alaea) enriches the salt with Iron Oxide.

Traditionally Hawaiians use Alaea salt in ceremonies to cleanse, purify and bless tools and canoes, as well, in healing rituals for medicinal purposes.

Savor a unique and pleasant flavor while roasting or grilling meats. It is the traditional and authentic seasoning for native Hawaiian dishes such as Kalua Pig, Hawaiian Jerky and Poke.

Fleur De Sel de Guérande

Fruit of the ocean, sun and wind, the Fleur De Sel of Guérande is composed of naturally-formed small creamy-white crystals. Very rare and of exceptional quality, Fleur de Sel is hand-harvested by "Paludiers" (traditional salt harvesters) by skimming the surface of the pristine salt marshes using time-honored Celtic methods.

Simply dried in the sun, the exquisite fine moist granules are rich in trace elements and heighten the flavor of dishes for the pleasure of your taste buds. This very special gourmet sea salt is ideal for raw vegetables, salads, and for grilled meats.

Sel Gris Marin

Grey Sea Salt has been hand harvested from the clay bottoms of the French Atlantic salt marshes each summer since the seventh century. The salt's aroma is redolent of the clean sea surrounding the Island of Ré. The island's salt marshes have been designated "Site remarquable du goût", an area of outstanding taste, by the French National Council for the Culinary Arts. Gathered with wooden tools as it has been since the Middle Ages, Esprit du Sel's Grey Sea Salt retains calcium, potassium, magnesium, copper, iron, and iodine for good diet, and nutrition. Neither treated nor washed, it's totally natural. Professionals use this salt to add complex taste and enhance the natural flavor of food. It is excellent for grilling meats and vegetables or to enhance the flavors in soups.

Australian Murray River Salt Flakes

As environmentally beneficial as it is flavorful and colorful, these apricot-colored gourmet salt flakes are a favorite of Best Chef in America Award-nominee James Boyce of Studio Restaurant at The Montage Resort & Spa. Salinity affecting both the country's vital water supply and agricultural land is Australia's worst environmental problem, and support of the producers of this salt stimulates removal of salt from sensitive areas. The salt is produced by feeding saline water from the Murray Darling Basin into crystallizer ponds, where it is naturally evaporated at a very high rate in N.W. Victoria's arid climate.

Hawaiian Black Lava Sea Salt

An artisan salt farmer creates this natural salt with purified seawater evaporated in above ground pools, then greenhouse dried to ensure retention of essential trace minerals. To add minerals, the salt is evaporated with purified black lava rock. Activated charcoal is added for its color and detoxifying effects. Esca Restaurant in New York City serves slivers of raw black bass sprinkled with black lava salt.

Japanese Nazuna Sea Salt

Solar evaporation ponds have never been an ideal means for making sea salt in Japan, where humidity is high and rainstorms regular. Numerous earthenware vessels for Japanese salt-making date back as far as the Jomon period (8,000 B.C. - 200 B.C.). Nazuna salt is naturally crystallized in dishes made of hinoki (Japanese cypress), set in pyramid-shaped solar houses located in the protected area of Oita Prefecture in Kyushu Island.

Mexican Benequenes of Chiappas

At the bottom of the Rio Salinas gorge are the salinas of Ixtapa: a small brine well, over two thousand years old, and seven long thatched cocinas. Directly behind the well, on an ancient stone platform, are three large wooden crosses, the same pattern as exists at other salinas in Mexico and Guatemala. Inside the cocinas, the brine is "cooked" in iron pangas set atop woodburning adobe ovens. As the salt forms, it is packed into petate (straw matting tubes), which form benequenes, or loaves, of salt, most of which are available daily in the market at San Cristobal de las Casas. The rest of the benequenes are distributed by traders east and north of Ixtapa, but only as far as 25 kilometers in either direction.

South African Coarse Sea Salt

Unprocessed salt is the healthiest, unless, of course, there are pollutants in the water or air, which become part of the salt. The best conditions in South Africa for making sea salt are on the west coast, where the climate is perfect for the formation of salt crystals: strong, unpolluted winds, more months of hot dry weather allowing for high evaporation, and the close proximity of the icy Atlantic ocean. Hand-harvested, this salt comes from the shores of St. Helena Bay, near the Berg river. It's the ideal salt for your grinder.

Website information:

<http://www.saltinstitute.org/38.html>

Kosher Salt:

Why should you use kosher salt? Salt's just salt, right? Nearly pure sodium chloride, plus or minus some iodine or anti-caking agents.

It turns out though, that kosher salt is just the right texture for cooking most foods. It has several advantages over finer-grained table salt.

Because it's coarser, there's less per unit volume. So a teaspoon of kosher salt is distinctly less salty than a teaspoon of common table salt, in some cases, a lot less, even half as much. Less salty salt means that it's harder to over salt food. You have better control.

Some people like the fact that kosher salt, because it is composed of larger grains, doesn't stick to your fingers when you measure by the pinch. Kosher salt's coarseness of texture also makes it more abrasive, so you can, for example, add it to a mortar and pestle to aid in mashing garlic. Remember, however, that coarser is only better to a point: when salt is too coarse, it's harder to dissolve and measure.

Finally, do not underestimate the difference in taste. Commercial table salt can contain various additives for nutritional (iodine) or aesthetic (anti-caking) reasons. Some kosher salts contain anti-caking agents too (Morton's contains yellow prussiate of soda) but even when it contains an anti-caking agent, kosher salt has a lighter, more natural taste.

Of all kosher salt's advantages, to me the most important is that it's less salty. This encourages more aggressive seasoning, which is exactly what many home cooks need to do.

Judy Rodgers ([The Zuni Cafe Cookbook](#)), whose advice on salting food is spot-on, uses a plain sea salt with the texture of coarse corn meal, one that is not widely available. Kosher salt is her second choice.

One thing kosher salt can't do: fit through the holes in a conventional salt shaker. If salted properly when cooking, there's less need to add salt at the tale.

Salt in History:

The human need for salt has shaped history. Civilizations rose in Africa, China, India, and the Middle East around rich salt deposits.

1. In earliest times, man, the hunter, got his salt from raw meat, as does the Eskimo hunter. When man began to farm, cereals did not give him enough salt, so the great salt hunt began. Label Alaska and leave it white to symbolize early man and the Eskimo hunter.
2. In China, about 2,700 B.C., the Peng-tzao-kan-mu, the earliest known writing on pharmacology was published. A major portion of this writing discussed more than 40 kinds of salt and included descriptions of two methods of extracting salt. Chinese folklore recounts the discovery of salt. The Chinese emperor, Yu, in 2200 B.C. made salt taxes a major source of revenue.
3. Salt was very important economically. Ancient Greeks exchanged their slaves for salt. That is where the expression "not worth his salt" originated.
4. Salt was used as money in many places throughout history. In Ancient Roman times, Roman soldiers were paid partially in salt, a salarium, from which the English word salary is derived. King Ancus Martius (640 - 616 B.C.) founded the first Roman colony at Ostia because of the salt marshes there and the Via Salaria (Salt Road) was built to carry salt to the city.
5. Twentieth century Ethiopia used salt disks as money. Stacks of them were kept in the treasury. A bride price of salt is customary in Ethiopia.
6. In the past, in Sudan, where salt was scarce, it was traded for gold.
7. Salt has played a crucial role in religion. There are more than thirty references to salt in the Bible. The Israelites were required to include

salt with all offerings. Ancient Jewish temples included a salt chamber. For hundreds of years Roman Catholic priests would place a pinch of salt on a baby's tongue during baptism and say, "Receive the salt of wisdom." When Lot's wife disobeyed God and looked back at the destruction of Sodom, she turned into a pillar of salt. Locate Israel as representative of salt's religious importance.

8. Salt has had military importance. For example, it is recorded that thousands of Napoleon's troops died during his retreat from Moscow because their wounds would not heal due to a lack of salt.

9. During the Civil War, Northern generals targeted the South's salt-production facilities because they knew that armies and civilians needed salt to maintain health, preserve food, and tan leather.

10. Settlement patterns were influenced by salt. People have made their home for thousands of years near Hallein, Austria. In 600 B.C. underground mining began. There are relics from Roman times into the Middle Ages that have been found there. For several hundred years this town was the center of the European salt trade from which the name of the state, Salzburg and its capital originated.

11. Salt taxes have led to angry riots. In the late 1700's hogs and cattle began dying in Britain for lack of salt. Farmers couldn't afford the high salt taxes. Angry mobs rioted. Finally the Parliament abolished the tax.

12. France's long-disputed tax on salt was partially responsible for the French Revolution. The new Assembly ended the tax in 1790, making salt affordable.

13. In 1930, Mahatma Gandhi undertook a 200 mile march to the sea to protest Britain's salt tax and the prohibition against gathering one's own sea salt. This started India on its path to independence.

14. The Erie Canal, opened in 1825, was known as the "ditch that salt built" because salt was its principal cargo. The salt taxes also helped pay for the canal.

15. Powerful monopolies in salt have grown through the ages. One example is the first patent issued by the British Crown to an American settler gave Samuel Winslow of the Massachusetts Bay Colony the exclusive right for ten years to make salt by his particular method.

16. In Central Africa until the early 1900's salt could be used to buy a bride.

17. Salt has been mined for 1000 years at Poland's Wieliczka mine. Generations of salt miners in Poland have carved a national treasure of salt sculptures in the Wieliczka salt mine near Krakow, Poland.

18. Salt has been used for preserving food throughout the ages. In medieval society, with relatively poor transportation systems, villages had to be close to self-sufficient for food. In Medieval Sweden good quality arable land was scarce, and had to be used for crops. That meant grazing and foraging animals, mainly cattle and pigs, were turned out into the woodlands to graze. Most meat was butchered in the fall due to a lack of winter fodder.