PURINA Institute

Advancing Science for Pet Health

HOT TOPIC

Salt in pet food

In focus

Salt is an important component in pet foods and is involved in a number of critical functions in the body. With recommendations to restrict salt intake in people, does the same apply to pets?

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What is salt?

Salt is a broad term that can cover many compounds.

Typically, if salt is listed on a pet or human food label it is sodium chloride, commonly known as table salt.

Sodium and chloride are both defined as macrominerals and are needed by the body and found in pet foods in relatively larger amounts (at least 0.1 mg/kcal). This is in contrast to microminerals, such as zinc and copper, which are needed in trace amounts (less than 0.1 mg/kcal).[1]

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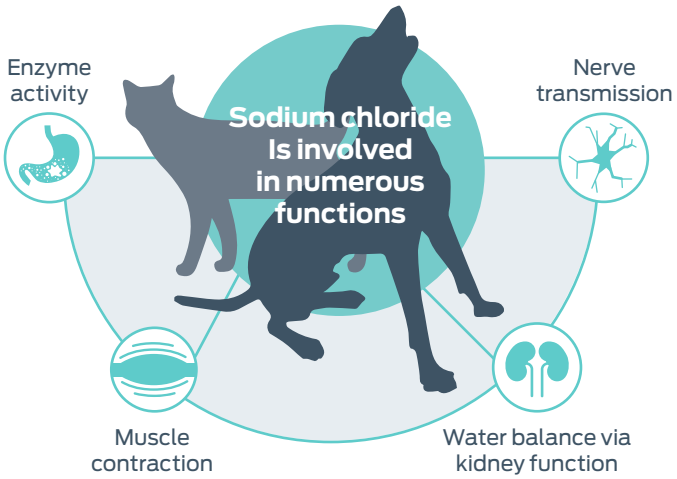
What is the role of salt or sodium chloride in pet food?

Sodium and chloride are both essential nutrients, meaning they must be provided in the food. They play an important role in many processes in the body, including:

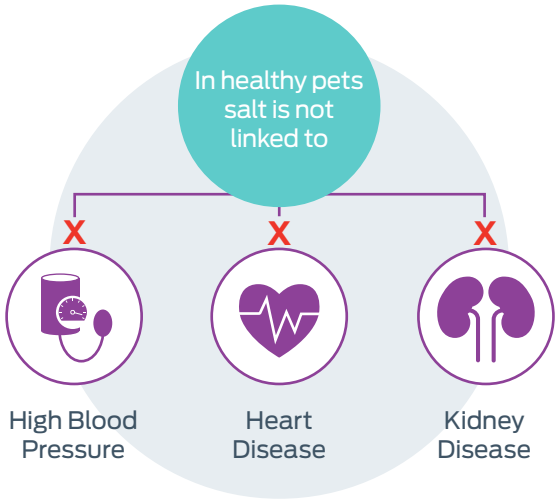
- Sodium helps maintain normal water balance in the body. E.g., if a dog becomes dehydrated, the kidneys retain sodium which helps conserve water in the body, and less urine is produced.[2]
- Sodium is involved in the transmission, or conduction of nerve signals and also with the contraction of muscle fibers.[2]
- Sodium and chloride are common electrolytes that in body fluids, help regulate or affect most metabolic processes, e.g., the flow of nutrients into and waste products out of cells. Sodium is also involved in the absorption of nutrients such as amino acids and glucose from the intestine.[2] (Amino acids and glucose are absorbed by a co-transport mechanism with sodium ions.)[3]
- Chloride is used to produce hydrochloric acid, a component of the gastric juice, and plays a crucial role in creating the acidic environment required for pepsin activity – the enzyme which digests protein.[2]

Sodium chloride will be found in optimal amounts in complete and balanced diets.



Is salt linked to health conditions in dogs and cats?

The World Health Organization recommends that humans limit salt intake due to concerns about high blood pressure (although this varies between individuals[4]) as well as potential effects on the heart and kidneys.[5] In healthy pets, however, the scientific literature shows no evidence that salt intake raises blood pressure or negatively affects heart or kidney health.[6-10]



There are instances where increasing salt intake for pets is beneficial. When managing urinary tract conditions, increased levels of sodium chloride in therapeutic pet foods can help boost water consumption, resulting in increased urine volume and urine dilution. Studies with pets fed higher levels of salt have shown no adverse effects on blood pressure or heart or kidney health.[6-10]

While there is no data showing a causal link between salt and heart disease, high blood pressure, or kidney failure in cats and dogs, the current recommendation from veterinary nutritionists is to avoid high intake in pets already affected with these conditions without necessarily limiting intake.[10, 11]

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