

SAUSAGES & MEAT AGING



mentions date back to Mesopotamia

*the emergence of industrial meatpacking plants in the
19th century*

Sausages are meat products made from meat (often minced), fat, salt, spices, and other additives. They can be **smoked, cooked, dried, or fermented**.

The history of sausage production and meat aging goes back thousands of years and is closely connected with **preserving food without refrigeration**.

In ancient times, sausages were created as **a method of meat preservation** – people wanted to keep meat from hunting or slaughter for longer periods. The first mentions of processed meat date back to **Mesopotamia (around 3000 BCE)**, where written records of sausages exist. In **ancient Greece and Rome**, sausages were a popular dish. The Romans prepared various meat mixtures (e.g., **lucanica**, the predecessor of today's Italian sausages).

In the Middle Ages, sausages were widely produced in monasteries and rural farms. Wood smoking was common – the smoke preserved the meat and added flavor. In medieval Europe, **butcher guild rules** and standardization of meat products began to develop.

During the modern era (19th century), **fermentation and drying of meat** began to spread – for example, in Hungary, Italy, and Spain. Traditional products emerged: **Čabajka, Milano salami, Chorizo, German Bratwursts**. In the 19th century, the first industrial meat processing plants appeared.

The 20th century is marked by industrialization – meat factories emerged along with modern technologies such as refrigeration, vacuum packaging, and the use of nitrite salts (for longer shelf life and to maintain pink color). In the USA and Europe, **dry-aging became widespread** – for high-quality steaks. After 1960, **wet-aging was introduced**, which is cheaper and hygienically safer – the meat is vacuum-sealed and aged.



Main steps in sausage production

Selection of meat

- Beef, pork, sometimes poultry, and more exotic meats are used. Muscle meat and fat are often combined.

Grinding and chopping

- Meat is coarsely or finely ground depending on the type of sausage.
- Salt (often nitrite), spices, water or ice, and sometimes starter cultures (for fermentation) are added.

Stuffing into casings

- The meat mixture is stuffed into casings (natural or artificial) – e.g., pork intestines, collagen casings.

Aging/fermentation (for some sausages)

- For example, salami or certain sausages are aged under controlled temperature and humidity – lactic fermentation occurs, improving flavor and shelf life.

Heat treatment or smoking

- Sausages can be:
- **Cooked** (ham, frankfurters...)
- **Smoked** (ham salami, sausages...)
- **Dried** (dry salami, Čabaj ka...)
- **Fermented** (hunter's salami...)

Storage and packaging

- Finished sausages are often vacuum-packed and stored refrigerated.



Meat aging (meat maturation)

Aging is the process where meat rests for several days to weeks to **improve flavor, texture, and tenderness**. After slaughter, proteins in the muscles **break down** due to enzymes, which loosens the muscle structure and tenderizes the meat.

Dry-aging

- Meat hangs at low temperature (0–2 °C), high humidity, and airflow.
- Lasts 2–6 weeks, sometimes longer.
- Develops a strong, almost “nutty” flavor.
- A crust forms on the surface, which is trimmed before cooking.

Wet-aging

- Meat is vacuum-sealed and aged in cold (5–14 days).
- Retains more juice and is faster, but flavor is not as pronounced as dry-aging.

Advantages of aging

- **Meat is more tender**
- **Better flavor**
- **Suitable for steaks and high-quality cuts**





Religious customs, wealth...

In many cultures, meat is a main dish and a symbol of wealth, strength, or celebration. It plays a role in religious customs (e.g., kosher, fasting). Meat is also part of national identity and local diversity of traditions and available ingredients. The meat industry is an important branch of agriculture and food production – providing jobs for millions (farmers, butchers, transporters, food specialists). With growing awareness of animal welfare and environmental impacts, questions arise such as: What impact does livestock farming have on climate, deforestation, and water consumption?