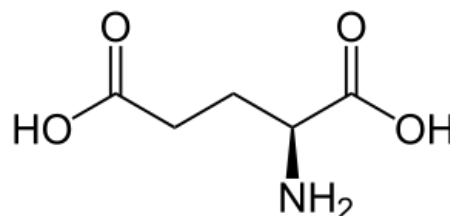


# Taste receptors

Taste receptors are attached to the taste buds of the mucous membrane of the tongue. The taste receptor is represented by taste cells equipped with microvilli, through which taste substances dissolved in saliva reach their taste pores.

We distinguish four basic qualities of taste: **sweet** (on the tip of the tongue), **salty** (on the tip and sides of the tongue at the front), **sour** (on the sides of the tongue at the back), **bitter** (at the root of the tongue). **Umami** is the fifth taste in addition to the four basic tastes. The name is derived from Japanese (umai, tasty, delicate in Czech). A specific taste receptor for umami taste - mGluR4 - was discovered in 2000 and perceives glutamic acid or its salts (glutamates) contained in food.

**Taste pathway** is formed by the fibers of three cranial nerves (*n. facialis*, *n. vagus*, *n. glossopharyngeus*). The threads then end in *ncl. tractus solitarii* in the medulla oblongata. From there, there is a connection with the cerebral cortex, where both the spatial perception of taste stimuli and their quality take place. Another connection is with the *hypothalamus* and *amygdalou*. This connection represents both an emotional accompaniment and a possible vegetative reaction to the ingested food and its taste.



The L-glutamine anion enables the perception of umami taste on the tongue

## Links

### Related articles

- Taste
- Taste pathway

### Source

- MOUREK, Jindřich. *Fyziologie*. 2. upr. a dopl edition. Grada Publishing, 2012. 222 pp. vol. 2. ISBN 80-247-3918-X.