



# Taste development and prenatal prevention

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## editorial

Activation of taste buds starts during the 30th week of gestation, when the amniotic liquid and its composition variations caused by the maternal diet may stimulate foetal taste receptors. This early activation appears as a first step in the development of gustatory sensory memory, which will shape the preference for sweet, sour or salty taste, thus affecting the food choices of the future newborn and child.

Individual sensitivity and the subsequent preference for the sweet taste are also determined by the presence of specific receptors and genetic factors (tasiR gene polymorphism). The development of individual preferences for some food over others is a complex process that entails both motivational and behavioural factors along with specific genetic aspects. From an evolutionary standpoint, the preference for the sweet or umami taste is due to the need to be attracted by energy-rich foods. Nowadays this need no longer exists, however the “affinity” for energy-rich foods goes back to this evolutionary advantage.

In practical terms, the first stimulations of taste buds start in the womb through the amniotic liquid and then continue through the maternal milk which, as stated, changes composition as a consequence of the mother’s diet. Therefore, mothers should eat a balanced diet that includes all the major classes of nutrients in order to stimulate the foetus’ taste. This would promote the future baby’s curiosity for all types of foods, favouring healthy food choices with regard to sweet and salty taste. The paediatric dentist can spread and promote a healthy food lifestyle from the gestation period.

We will then be able to counteract a possible innate preference for sweet (and salty) taste, which can be reinforced or modified by the offering and availability of food, as well as family and cultural influences even before infancy. When parents eat healthy they set a good example for the child, thus fulfilling the aims of primary prevention, while still contributing to the success of prenatal prevention alongside the paediatric dentist.

### Reference

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