Several healthy properties have been associated to polyphenol compounds. However, some of them are known to have a bitter taste and people avoid their intake. Polyphenols bitterness is usually assessed by sensory analysis but the available data are rather inconsistent. In the work presented by Dr Susana Soares during Lisbon Polyphenols 2014, bitterness of six polyphenol compounds present in a wide range of plant-derived foods/beverages was analyzed by activation of the human bitter taste receptors, TAS2Rs.

The results obtained show that different polyphenols activate different combinations of the ~25 TAS2Rs. Notably, tannins are the first natural agonists found for TAS2R5 displaying high potency only toward this receptor. PGG and malvidin-3-glucoside showed the lowest EC$_{50}$ values, suggesting they could be responsible for the bitterness of fruits, vegetables and derived products even if they are present in very low concentrations.

For more information: [www.polyphenols-site.com](http://www.polyphenols-site.com)