

Eat Well, Live Well.



“How to communicate science and new technology to consumer”

- Historical perspective of communication of Umami
and a way forward towards sustainability.-

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The Ajinomoto Group's Business Expansion

Having pursued *Good Taste* and *Health*, Ajinomoto expanded its business into various fields.



Sales in 130 countries and regions, 123 production sites



2011 Established Ajinomoto Istanbul

2013 Gained 50% stock of Kükre Gıda

2017 Acquired Örgen Gıda and gained 100% stock of Kükre Gıda

2018 Integrated 3 companies



Our history started from discovery of Umami in 1908

Umami is the 5th taste of the world, but can be found in various kinds of foods.



Asparagus



Tomato



Cheese



Meat

An attentive taster will find out something common in the complicated taste of asparagus, tomatoes, cheese and meat, which is quite peculiar and cannot be classed under any of the well defined four taste qualities, sweet, sour, salty and bitter.

(Prof. K. Ikeda's presentation at the 8th Int'l Congress of Applied Chemistry, Chicago, 1912)

Dr. Ikeda and Mr. Suzuki (founder)



1909: AJI-NO-MOTO was sold as the first umami seasoning in the world.

2018: Dr. Ikeda was selected as one of 10 greatest inventors
by Patent Bureau in Japan.



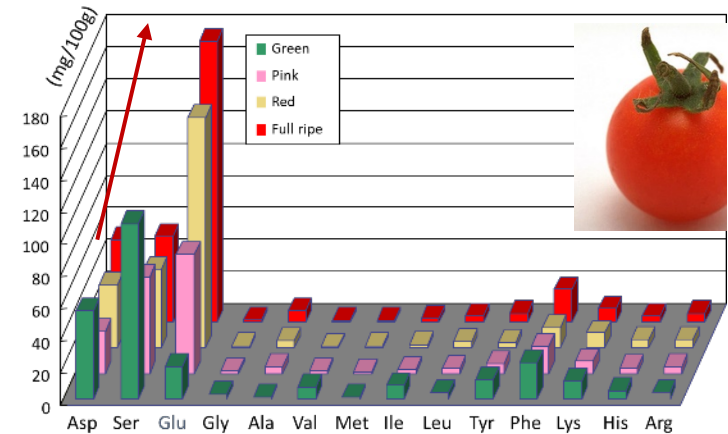
Original bottle

Umami is contained in various foods

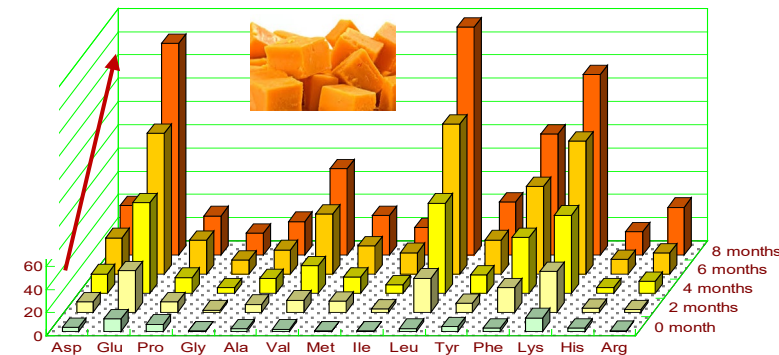
Common Foods Sources of The Five Basic Tastes

Taste	Taste substance	Common foods
Sweet	Sucrose Fructose Glucose	Sugar Honey Candy
Sour	Acetic acid Citric acid Lactic acid	Vinegar Lemons Limes Yogurt
Salty	Sodium chloride	Salt
Bitter	Caffeine Alkaloids Momordicin	Coffee Bitter melons Chocolate (90% cacao mass)
Umami	Glutamate Inosinate Guanylate	MSG Tomatoes Cheese Meat

Glutamate increases during ripening /aging



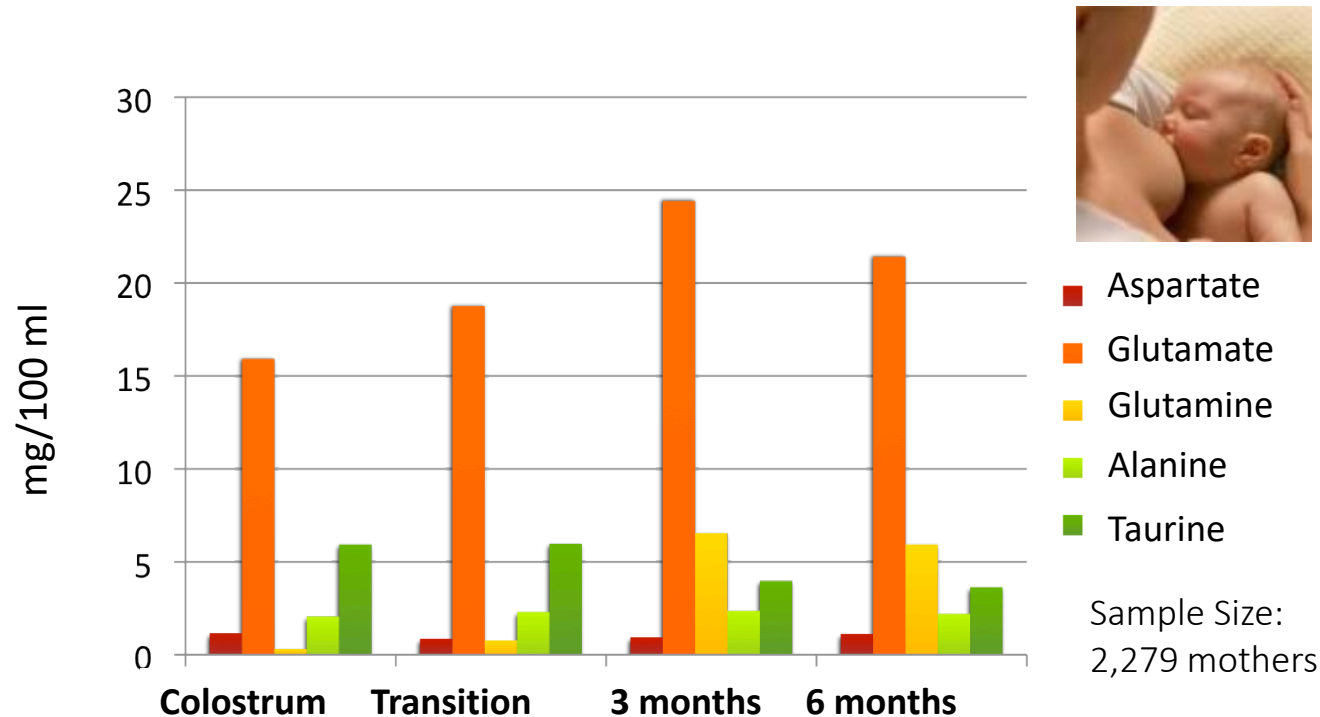
Tomato



Cheddar cheese

Breast milk: Only one nutrient for new born baby

High amount of Glutamate is contained in breast milk.



Itoda et al., *Japanese J pediatric gastroenterol & Nutr* 1991

Daily Intake of Free Glutamate:

30.3 – 48.2 mg free glutamate/kg bw

for a 3.5 kg infant ingesting approximately 750 ml of milk per day

Based on data from:

Zhang, Z., et al. Amino Acid Profiles in Term and Preterm Human Milk through Lactation: A Systematic Review. *Nutrients* 2013;5:4800-21.

Proactive Communication

[Direction]

- Proactively communicate with customer, media and academia about the 5th taste of the world - Umami.
- Secure transparency as company and answer any questions.

[Action examples]

- “Umami Project” to prevail information of Umami
- Newsletters in 8 languages
- Forums for open discussion
 - Nature Science Café (2017, London)
 - World Umami Forum (2018, NY)



Nature café

World Umami Forum (NY, Sep20-21, 2018)



In celebration of the 110th anniversary of umami, the World Umami Forum brought together experts in food, nutrition, history and behavioral science to deepen the understanding for umami.

[Major contents]

Presentation / Panel discussion

- Taste and flavor
- What is Umami?
- Umami Cooking competition by culinary students

Culinary demonstration

Umami training

Breakfast with media

Detail:

<https://www.worldumamiforum.com>



Articles in the media about WUF praised our open approach.

#ad Chef @andrewzimmern uses a 2:1 ratio of MSG to salt to sprinkle on food for "crazy good" flavor and to reduce sodium.
[#worldumamiforum](#)

The addition of MSG and using less sodium adds so much flavor to food! It was truly an eye opener to differences in taste when we sampled broth, dried tomato and aged cheddar. [#worldumamiforum](#) [#MSGisUmami!](#)

I ate a grasshopper!!! Ahhhhhh!
[#worldumamiforum](#) [#MSGisUmami](#)
[#sponsoredevent](#)

Listening to the fabulous @RainstM talk about MSG science, dispelling myths.
[#msgisumami](#) [#worldumamiforum](#)
[#sponsoredtravel](#) [@AjinomotoTaste](#)

@andrewzimmern MCing today's event at #MSGisUmami • Great info being presented.
[#sponsoredtravel](#) [#rdchat](#)

dana angelo white Always a fun time with fellow RDs learning, discussing, eating, smiling and maybe some wine 🍷 cheers @danyangior [#worldumamiforum](#) [#sponsoredtravel](#) [#tastethedifference](#) [#worldumamiforum](#) [#sponsoredevent](#)

Sweet & Sour & Bitter & Umami.

The difference in flavor with the addition of MSG = Best part? Sodium increases only 1.5 mg/100ml. [#msgisumami](#) [#tastethedifference](#) [#worldumamiforum](#) [#sponsoredevent](#)

Toward sustainable future

Support of Sustainable Development Goals as global company.



Tackle nutrition issue

AJINOMOTO GROUP NUTRITION POLICY

Released on July 31th

- 1** We aspire to focus on the nutritional needs of people of different regions, ages, lifestyles, and health conditions and provide products and information that improve the nutritional balance of daily meals.
- 2** We assist people in enjoying delicious food and contribute to emotional and physical nourishment through smart cooking* and recommendations of delicious menu utilizing Umami.
- 3** We provide reliable solutions based on scientific research that utilize the nutritional and physiological properties of protein and amino acids.
- 4** We assist consumers in the selection of more healthy food products by devising and implementing voluntary labelling and communication strategies while following guidelines of national and public agencies.
- 5** We continue to conduct socially beneficial activities related to nutrition and build ties with diverse stakeholders.

Umami contribution: Eat Umami, Eat Less

Umami flavor enhances appetite but also increases satiety.

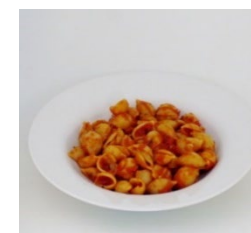
26 Participants



Breakfast
9:00 – 11:00h



Fixed Preload
12:00 – 13:30h

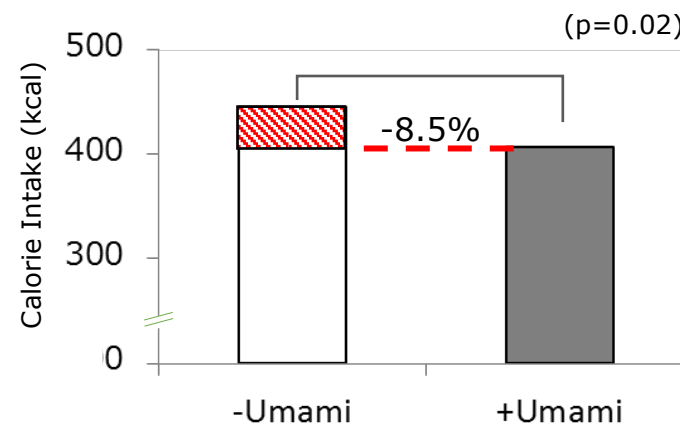


Ad-Libitum Lunch
12:45 – 14:15h



Prof. Yaomen's research team in Sussex Univ. suggested umami may act to both enhance flavor and increase feeling of fullness when in combination with protein.

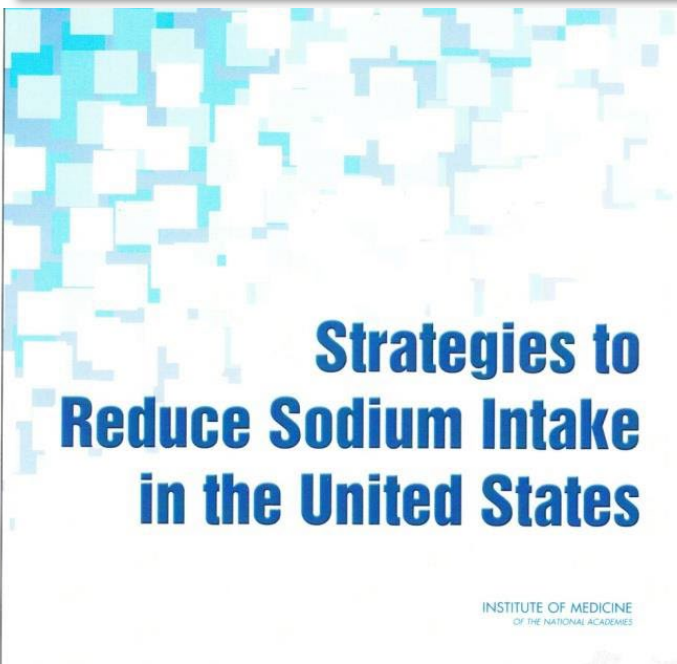
Calories intake from Lunch



Umami contribution: Salt reduction

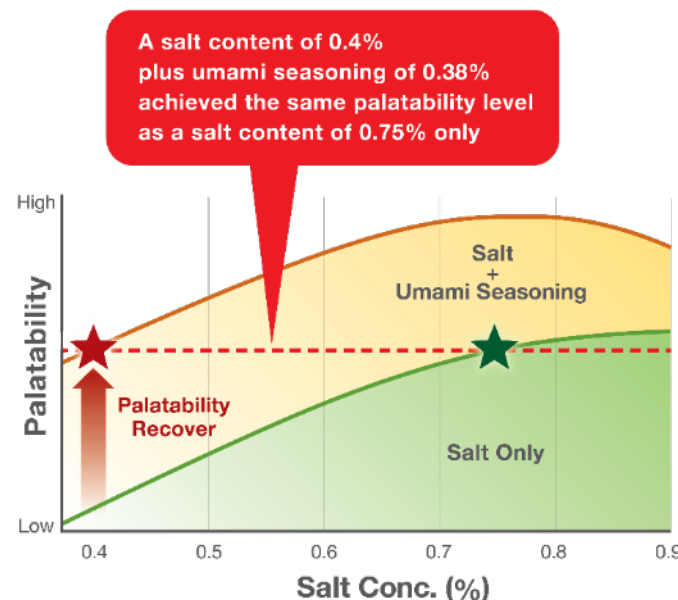
Umami can reduce sodium intake by approximately 30%

A prominent example of an added compound involves glutamic acid (an amino acid). Combining glutamic acid with sodium creates the wellknown flavoring compound monosodium glutamate, or MSG. MSG imparts a savory taste (called “umami”) as well as a salt taste to food. Some studies have shown that it is possible to maintain food palatability with a lowered overall sodium level in a food when MSG is substituted for some of the salt (Ball et al., 2002; Roininen et al., 1996; Yamaguchi, 1987). In these cases, less MSG is added back to the food than is removed by using less salt.



Strategies to Reduce Sodium Intake in the United States

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES



Adapted from S. Yamaguchi et al, 1984

Eat Well, Live Well.



Thank you.