Dietary Sweetness – A Controversy

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Google Scholar Hits for “Taste Perception" OR "Sweetness Perception"

Jean Anthelme Brillat-Savarin (1755-1826)
sweetness
Does sweetness have a colour?
Dr Sophie Nicklaus (INRA, FR) will give us clues to answer the key question: Will early life exposure have an impact on sweet food intake later in life?
Prof. Kees de Graaf (University of Wageningen, NL) will introduce the role of sweetness in the diet through the course of History.
Google Scholar Hits for "Dietary Sweetness"

Global Market for Sugar and Sweeteners

RESEARCH & INNOVATION

EU Programmes 2014-2020
- Search topics
- Updates
- Calls
- H2020
- 3rd Health Programme

TOPIC: Sweeteners and sweetness enhancers
- Topic Identifier: SFS-40-2017
- Publication date: 14 October 2015
- Types of action: RIA Research and Innovation action
- Deadline/Model: two-stage
- Opening date: 04 October 2016
- Deadline: 14 February 2017 17:00:00
- 2nd Stage Deadline: 13 September 2017 17:00:00
- Time Zone: (Brussels time)
Why You Should Eat More Sugar

The AMOUNT OF SUGAR IS TOO DAMN HIGH

The TRUTH about Sugar…

8 Amazing Blogger Weight-Loss Transformations
Discover how real people turned slimming down into a successful blogging career

More Shots Fired in ‘Sugar War’

Your daily reminder to not eat sugar!!!!!!!!

THEY SAY SUGAR FREE "IS BETTER"

Good News, Sugar Fans! Study Questions War Against Sweets
Are you really as sugar-free as you think?

Emily's story: “I was addicted to sugar... 8 weeks later I'm a completely new woman!”

5 sugar-free muggins that take just 2 minutes!

Can I eat chocolate when I quit sugar?

FREE! A Day in the Life of Quitting Sugar
Join our newsletter for the best IQS tips, tricks and recipes + a free eBook!
THE FRUIT PYRAMID

EAT MOST
- strawberries
- blueberries
- raspberries
- blackberries
- boysenberries
- gooseberries
- cranberries
- rhubarb
- passionfruit

EAT SPARINGLY
- grapes, cherries, other apples, mangos, bananas, pineapple, watermelon, lychee, figs, quince, guava, rambutan, persimmon, prunes, dates, sultanas, raisins, other dried fruit

EAT LESS
- mandarins (tangelos), plums, peaches, oranges, green apples, apricots, nectarines, mulberries, pears, rockmelon (cantaloupe), honeydew melon

https://iquitsugar.com/
Ms Sigrid Gibson (Sig-Nurture, UK) will discuss tomorrow if sweet diets are poor in nutrients and if sweetness without calories is associated with poorer dietary choices or a lower diet quality.
Prof. Peter Rogers (University of Bristol, UK) will discuss the potentially learned association between dietary sweetness and calories, and the link between exposure to sweetness and eating patterns.
Prof. Richard Mattes (Purdue University, US) will introduce the existing evidence of this potential impact, and present whether the evidence comes primarily from observational studies or whether there is also evidence from intervention studies.
Prof. John Mclaughlin (University of Manchester, UK) will discuss the link between acute and chronic sweetness exposure and in vivo metabolic response to foods in humans, with a focus on glycaemic regulation.

Blaak et al., 2012
We build multi-stakeholder science-based solutions for a sustainable and healthier world.
What we do – Mission

We foster **collaboration** between relevant stakeholders.

We identify **existing and emerging challenges** in food, nutrition and health and facilitate proactive practical solutions.

We **communicate** and disseminate our scientific output widely.

Our way of working is designed to deliver science of the **highest quality and integrity**.
Partner in 3 EU-funded projects

Dissemination to a network of 7,300 stakeholders

428 publications, over 22,500 citations, Hirsch-index of 80

20 task forces, 47 expert groups and 4 activity proposals under review

Portfolio organised around 6 overarching fundamental themes

500 industry and academic scientists in our expert groups

57 member companies in 2016

18 Staff
**Nutrition, Development & Healthy Ageing**

**ILSI Europe Scientific Portfolio**

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### Being overweight or obese increases your risk of contracting a number of non-communicable diseases such as diabetes, some cardiovascular diseases, cancer and dementia. Once considered a problem only in high-income countries, now the number of people classed as being overweight or obese in low and middle-income countries, particularly in urban settings, is disturbingly high and on the rise.

### Alternatives to Animal Testing

A lot of debate has surrounded the use of animal studies in nutrition and food safety, especially regarding identifying when they are mandatory and when they can be replaced by alternative methods. There is a global call from regulatory bodies and animal welfare stakeholders to ensure a reduction of animal testing. The development of new alternative methods offer new opportunities for food safety, nutrition and efficacy studies.

### Healthy Ageing

As the world’s population is ageing, there is a need for preventative dietary recommendations tailored to the specific needs of the elderly to help maintain the body’s function during the ageing process.

#### Plant-Based Ingredients & Cognitive Performance

The effects of plant-based ingredients and their impact on cognitive performance, as well as their likely mechanisms of action, are being investigated by this expert group for a systematic literature review that will provide guidance on the ingredients upon which future research activities should focus. These ingredients may improve cognitive performance and prevent or reverse cognitive function decline during adulthood.

Status: Manuscript in preparation.

#### Nutrition for the Ageing Brain

Currently there are no preventative dietary recommendations for preserving brain health and cognition by any major health organisation. ILSI Europe’s workshop in 2014 called ‘Nutrition for the Ageing Brain – Towards an Optimal Diet’ which aimed to investigate how and when nutrients can support brain health. The proceedings of this 1st workshop were published in October 2016. Following the success of this first workshop, a second workshop was held in June 2018, focusing on functional aspects and potential strategies. The proceedings are in the pipeline.

Status: Third workshop to be held 2018.

### Nutrient Status of Population Groups

Our body needs a combination of several nutrients to maintain good health. The evaluation of nutrient intake and status of the population is an essential step for setting nutrient recommendations.

### Carbohydrate-Based Recommendations for Dietary Guidelines

Dietary recommendations and guidelines can help consumers to adopt healthy lifestyles and to make healthy food choices. However, although the process for dietary guidelines development has improved over the years, non-communicable diseases relating to poor dietary choices are still more widespread than ever. ILSI Europe aims to bring clarity to this methodology, using to develop carbohydrate-based dietary recommendations.

Status: Manuscript submitted.

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### Early Life Nutrition

The next generation is anticipated to have a shorter life expectancy. As nutrition influences long-term health in infants, scientists can identify risk factors for health outcomes at the earliest stages of life.

#### Gestational Diabetes & Diet

Gestational Diabetes Mellitus (GDM) occurs when a glucose intolerance (of any degree) appears during pregnancy. It’s estimated that 2% of all pregnancies in Europe result in GDM. High maternal weight is associated with a higher risk of GDM. ILSI Europe is now conducting a literature review into treatment options vs. lifestyle interventions.

Status: Manuscript in preparation.

#### Early Growth Velocity

Infants who have suffered a period of undernutrition tend to compensate and then grow rapidly once their nutritional conditions improve. Rapid growth early in life may increase the risk of chronic diseases later in life. This activity evaluates the influence of growth patterns on the risk of disease later in life (e.g. obesity, metabolic syndrome, diabetes, cardiovascular diseases) in pre-term infants and infants of small weight for gestational age.

Status: First manuscript published, second manuscript submitted.

#### Determinants of Immune Competence Across Lifespan

While the importance of a well-functioning immune system for health outcomes is recognised, the critical nutrients supporting optimal immune development in the first year of life as well as the impact of early life nutrition on later life immune competence are still under debate. This activity will explore the interaction between nutrition and immune system in early life. The influence of early life nutrition on the immune system in later life will also be evaluated. It is intended to provide nutritional recommendations for an optimal performing immune system throughout life.

Status: Manuscript in preparation.

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### Energy Balance

A balanced healthy diet must satisfy human needs for energy and all essential nutrients. Energy balance refers to the relationship between the energy that we use up, and the energy that we take in. If energy balance is positive for some time, the reserve in the body is increased (e.g. fat in adipose tissue), whereas a negative energy balance for long periods (insufficient energy intake to meet requirements) is almost always accompanied by a deficiency in the intake of one or several nutrients.

#### Dietary Fibres

Dietary fibre is often recommended for appetite control, but not all fibres are equally effective. For example, eating too many sugary foods can lead to health problems. In 2016, ILSI Europe will review the evidence suggesting that exposure to sweetness affects diet quality and energy intake as well as whether sweet taste per se affects health. The literature on testing sweetness effects over sustained exposures is limited.

Status: Workshop 3-4 April 2017.

#### Dietary Sweetness – Is it an Issue?

Humans are attracted to sweet things, an adaptation from evolution. But eating too many sugary foods can lead to health problems. In 2016, ILSI Europe will review the evidence suggesting that exposure to sweetness affects diet quality and energy intake as well as whether sweet taste per se affects health.

Status: Workshop 3-4 April 2017.

#### Adaptation to Changes in Satiety

How long should research studies run in order to give confidence in the sustained efficacy of interventions with supposed appetite-related benefits? To address this issue, ILSI Europe is conducting a systematic review of the literature on testing satiety effects over sustained exposures.

Status: Manuscript in preparation.

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### NWO Project

Mindless eating is implicated in over-consumption of food, which is associated with a lack of control, taste and attention. All this weakens the properties that determine meal termination. This project aims to link these different eating behaviour, gaining such an understanding that ultimately lead to the development of strategies that enhance eating behaviour.
Dietary Carbohydrates Task Force

“Understanding the links between carbohydrates and health.”

Objective

The Dietary Carbohydrates Task Force aims to understand the links between carbohydrates and health, particularly the relevance of controlling glycaemia, and the types and quantities of carbohydrates that should be consumed to optimise health.
Eating Behaviour & Energy Balance Task Force

“Understanding how to improve appetite control and energy balance.”

Objective

The Eating Behaviour & Energy Balance Task Force aims to evaluate the scientific underpinning for routes to achieve improved energy balance and appropriate methods for their substantiation and communication to consumers.

Recent Impact

One common goal: discuss the **scientific** evidence
51 Participants

Academia

Industry

Public Sector
New – Nutrient Density Project

Importance
The effort to reduce people global energy intake might impair their nutrient balance, unless they eat more nutrient dense foods. Recent data showed that around 2 billion people suffer from micronutrient deficiency. There is a need to change the approach on how to fight obesity, moving from a single nutrient approach to a more holistic approach through the concept of ‘Nutrient Density’.

Objective
The project will focus on better understanding how to use the nutrient profiling approach for whole diets in order to ensure their sufficient nutrient density. It would thus have a very positive impact on public health and help reducing the obesity epidemic.
ILSI Europe Staff

Prof. Diána Bánáti
Dr Stéphane Vidry
Ms Ruth Marquet

Dr Cyril Marsaux
Dr Pierre Dussort
Ms Toula Aslanidis
Have a very fruitful workshop…
...and a sweet stay in Brussels!