

## E-NEWSLETTER Vol.01\_2025



# RISKS AND PREVENTION OF MICROBIAL

**CONTAMINATION ON TOOTHBRUSH** 





Toothbrushes can easily become contaminated with microbes due to the diverse microorganisms in the mouth and improper storage. While brushing daily is vital for oral hygiene, it can also lead to the buildup of bacteria on toothbrushes.

Associate Professor Erica Hartmann from Northwestern University in the United States researched on microorganisms in homes, focusing on damp areas like toothbrushes. Her study revealed that toothbrushes can harbor over 600 types of viruses, most of which are not harmful to humans. However, bacteria such as Pseudomonas, Enterobacter, *Escherichia coli*, Bacillus, Klebsiella, Beta-hemolytic streptococci, Viridans streptococci, *Streptococcus mitis*, Micrococci, and various types of fungi were found to contaminate toothbrushes after brushing or due to improper storage conditions and handling by consumers. These microorganisms can cause bloodstream infections, oral diseases, respiratory issues, kidney diseases, and cardiovascular problems.

A study with 160 participants evaluated disinfectants effectiveness in cleaning toothbrushes. Participants received toothbrushes and toothpaste with detailed instructions for maintaining oral hygiene. After one month, their toothbrushes were collected and divided into four groups, each group was treated with the following disinfectants:

Group 1: 0.2% chlorhexidine gluconate

Group 2: Listerine

Group 3: Dettol

Group 4: Tap water

The results showed that Dettol was the most effective disinfectant, followed by Listerine and 0.2% chlorhexidine gluconate, while tap water was ineffective in disinfecting toothbrushes.





The American Dental Association (ADA) suggests the tips to reduce microbial contamination on toothbrushes:

Replace your toothbrush every 3 months

Use a toothbrush cover

Choose toothbrushes with charcoal bristles to reduce bacteria

Rinse with mouthwash before brushing

Use toothpaste containing triclosan

Disinfect your toothbrush daily

Store your toothbrush in a dry location

Following these practices can reduce bacterial buildup and enhance oral health.

2. https://www.newscientist.com/article/2451111-your-toothbrush-is-teeming-with-hundreds-of-types-of-viruses/ 4. https://pmc.ncbi.nlm.nih.gov/articles/PMC9646506/ 6. https://pmc.ncbi.nlm.nih.gov/articles/PMC9983579/



The European Chemical Agency (ECHA) defines microplastics as synthetic polymer particles or polymer-coated particles below 5 mm. in all dimensions that are organic, that are solid, porous, or hollow. ECHA released conclusions to the European Commission on the future restriction of microplastics in the EU. The proposed restriction approved by the commission is expected to impact the cosmetics industry.

As from 17 October 2023, Regulation (EU) 2033/2055 restricts synthetic polymer microplastics on their own, or intentionally added to mixtures with the aim of reducing the emission of microplastics in all products in order to protect the environment.

The transitional periods for the implementation of the ban on the sale of containing microplastic products in the EU are set by the regulation and are indicated in the table below.

Transitional period for the application of the ban (according to paragraph 6 under entry 78 of Annex XVII to R/EC 1907/2006)

Designation of the substance, of the group of substances or of the mixture	Date of application
<ul> <li>Rinse-off products (intended to be removed after application on the skin, the hair or the mucous membranes), unless they contain beads for exfoliation, polishing or cleansing</li> </ul>	From 17 Oct, 2027
<ul> <li>Synthetic polymer microparticles for use in the encapsulation of fragrance</li> <li>Leave-on products</li> </ul>	From 17 Oct, 2029
Lip products, nail products, and make-up products unless they contain microbeads	From 17 Oct, 2035

## References:

- https://trade.ec.europa.eu https://www.cosmeticsandtoiletries.com



## **Achieving Your** Weight Loss Goal in 2025



As we step into 2025, many of us set a goal to lose weight - a common New Year's resolution to start the year with a healthier focus. Whether it is from enjoying holiday treats or simply wanting to improve overall well-being, weight loss often becomes a priority. Achieving this goal typically involves a combination of exercise, healthy eating, and for some people, the support of dietary supplements to enhance results.

One of such innovative ingredients that has gained attention is a citrus polyphenol blend, a natural ingredient that has been backed by over 10 years of research. The benefits of this blend have been demonstrated in over 300 clinical subjects, using gold-standard research methods. Its positive impact on fat loss and metabolism has been proven across both Asian and Caucasian populations.

### Key Benefits of Citrus Polyphenol Blend:



Promotes adipose beiging process, which increases energy expenditure



Increases resting energy expenditure by 181 Kcal after just 16 weeks of supplementation

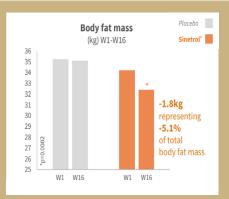


Reduces body fat mass without affecting lean muscle



Improves body weight, waist, and hip measurements





Additionally, a 2024 study highlighted the impact of Sinetrol® on several important metabolic markers, including improvements in HDL (good cholesterol), LDL (bad cholesterol), HbA1c (blood sugar), and leptin (the fatregulating hormone). The study also showed a reduction in visceral adipose **tissue** which is fat that surrounds the organs in abdominal cavity, including liver, stomach, and intestines, potentially due to positive changes in the gut microbiota.

Wishing you a year filled with health, happiness, and the successful achievement of your goals!

### Research

Effect of Sinetrol Xpur on metabolic health and adiposity by interactions with gut microbiota: a randomized, open label, dose-response clinical trial

Jananee Muralidharan<sup>1</sup>, Cindy Romain<sup>1</sup>, Linda Chung<sup>2</sup>, Pedro Alcaraz<sup>3</sup>, Francisco Javier Martinez-Noquera<sup>2</sup>, Mayoura Keophiphath<sup>3</sup>, Benjamin Lelouvier<sup>4</sup>, Patricia Ancel, Benedicte Gaborit and Julien Cases

Background Sinetrol® Xpur is a polyphenolic ingredient rich in citrus flanoids that has shown weight loss effects in previous studies. The dose dependent nature, gut microbial actions of this product has not been explored previously, thus presented in this study.

Methods In this open label study, we evaluated the effect of Sinetrol® Xpur supplementation on healthy but overweight/obese adults (20-50 yrs) for 16 weeks. Participants (n = 20) were randomly allocated to a high dose group (HD, 1800 mg /day) or low dose group (LD, 900 mg/day) of the product for 16 weeks. Fat composion, gut microbial composition, were evaluated using MRI and 16S rDNA sequencing respectively at week I and 16.

Results We observed HDL, HbAIC, LDL and leptin improved signihcantly over 16 weeks, irespective of the dosage. There was a trend for decrease in visceral adipose tissue (VAT), BMI over time and body weight displayed a trend for dose dependent decrease. Eubocterium xylanophilum, Ruminococcacea UCG-004 genus which increased in HD and LD respectively were negatively associated to VAT. doses increased butyrate producers such as Eubocterium ruminantium and Ruminococcaceae NK4A214 genus.

Conclusions Overall chronic supplementation of Sinetrol® Xpur, irrespective of their dose improved HbA1c, LDL and leptin and tended to decrease visceral adipose tissue via changes in gut microbiota. Trial registration number NCT03823196.

**Keywords** Obesity, Polyphenols, Gut microbiota, Fat loss, Metabolism

References
1. https://www.fytexia.com/en/health-areas/metabolism-body-composition/fat-loss-for-the-long-term-sinetrol/
2. Muralidharan J, Romain C, Chung L, et al. Effect of Sinetrol\* Xpur on metabolic health and adiposity by interactions with gut microbiota: a randomized, open label, dose-response clinical trial. Nutr Metab. 2024;21:83.



3-5	TLM Food Expo, Singapore https://tlmevent.com/
6-7	India International Beauty & Wellness Fair, Jaipur, India https://www.indiabeautyfair.in/
10-12	TLM Food Expo, Penang, Malaysia https://tlmevent.com/
14	CAHB and Mini CAHB Makeup Seminar, Chemico Asia Pacific (M) Sdn. Bhd., Kuala Lumpur, Malaysia
15-16	Functional Foods for Wellness Summit, Bangkok, Thailand https://ffwsummit.com/
15-17	COSME Week Tokyo 2025, Koto, Japan https://www.cosme-week.jp/tokyo/en-gb/lp/visprom25.html
16	CAHB and Mini CAHB Makeup Seminar, Chemico Asia Pacific (M) Sdn. Bhd., Penang, Malaysia
16-17	The Cosmetic and Beauty International Conference (CBIC), Mae Fah Luang University, Chiang Rai, Thailand https://cbic-icim2025.mfu.ac.th/
16-18	Japan Selection 2025, Bangkok, Thailand https://js-dmk.jp/
21-23	Cosmoprof North America Miami, Miami, USA https://cosmoprofnorthamerica.com/miami/
22-23	Comet Scientific Congress 2025, Cergy, France https://www.comet-congress.com/en/
22-23	Sustainable Foods Summit 2025, San Francisco, USA https://www.sustainablefoodssummit.com/northamerica/
23-25	International Private Label & Contract Manufacturing Expo 2025, Mumbai, India https://tradeshows.tradeindia.com/iplcmexpo/



- Beautyworld Japan Fukuoka, Fukuoka, Japan 3-5 https://beautyworld-japan-fukuoka.jp.messefrankfurt.com/fukuoka/en.html
- Vitafoods India 2024, Mumbai, India https://www.vitafoodsindia.com/ 5-7
- BioFach 2025, Nuremberg, Germany https://www.biofach.de/en 11-14
- **12-14** The 37<sup>th</sup> Gourmet Show Spring 2025, Tokyo, Japan https://www.gourmetshow.jp/english/
- **12-15** Food Pack Asia 2025, Bangkok, Thailand https://foodpackasia.com/th/homepage/
  - Momentive Seminar, Chemico Asia Pacific (M) Sdn. Bhd., Kuala Lumpur, Malaysia 13
- **16-19** Global Beauty & Wellness Exchange, Bluffton, USA https://globalbeautyexchange2025-february.converve.io/
- **17-19** Beauty Asia 2025, Singapore https://beautyasia.com.sg/
- **17-21** Gulfood, Dubai, UAE http://www.gulfood.com/
- **24-25** Professional Beauty India, Kochi, India https://professionalbeauty.in/register/kochi?source=sidebanner





**25-27** Food & Beverage Expo, Surat, India https://foodexpo.sgcci.in/

**28-29** Paris Packaging Week, Paris, France https://www.parispackagingweek.com/en/

**28-29** Sustainable Foods, London, UK https://www.sustainablefoodsevent.com/









CAHB center in collaboration with Chemico Myanmar Co., Ltd. organized an interesting seminar on December 4th, 2024 under the title "Sensory Awakening and Unique Performance by Rheology Modifiers." This seminar presented about a variety of thickeners with sensory test of each thickener to know well about its texture and appearance. Many interesting formulations using these thickeners were introduced as well.

### **CAHB Seminar, Malaysia**

Chemico Asia Pacific (Malaysia) Sdn. Bhd., in collaboration with Chemico Asia Health and Beauty (CAHB) Center, successfully hosted a product seminar on December 19th, 2024 at the Chemico Asia Pacific Seminar Room, Malaysia. The seminar aimed to share the latest market trends for toiletries and hair care, transfer new innovative information and product knowledge and build strong customer relationships. Attendees gained valuable insights into market trends and effective product applications. A highlight of the event was the hands-on lab session, where participants had the opportunity to prepare the chosen formulations by themselves and gain a practical experience of the products. The seminar concluded with an engaging Q&A session, leaving attendees inspired and excited to explore the new products.



























