

# Misleading myths & dangerous dares

Illustrations:  
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A whole of host of unsettling or even alarming claims and trends related to health are spreading online. However, most of them don't hold up to scientific scrutiny.





**W**e all know helpful tips and tricks that come in handy for annoying everyday problems. Many of them are well-intentioned and, should they prove useless, are disappointing but not dangerous. But there are also dubious claims and trends making the rounds that, if taken seriously, could lead to negative effects on our health. By the time they are picked up by traditional media, they tend to have already spread far and wide on social media.

### INCOMPLETE AND PROBLEMATIC ADVICE

Microplastics are everywhere: the environment, our food, our bodies. Though current information does not suggest that they cause health problems in our cells, they still place within the top three most feared substances in the survey results of the BfR Consumer Monitor. But the alleged secret solution to this dilemma has long been circulating on social media: just drink lemon oil and the microplastic will dissolve in the body. An apparently simple solution for a complex problem that otherwise makes consumers feel powerless? That goes down easy – much like oil. Unfortunately, it is not true.

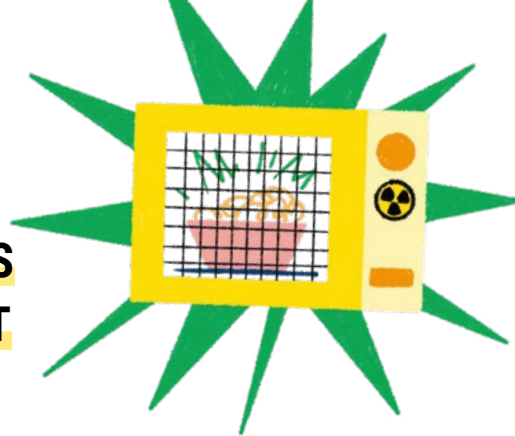
Aside from “life hacks” like this one, there are also several warnings being spread about supposedly unknown problems, which cause uncertainty because they highlight aspects which are either false or taken

out of context. For instance, there is a claim making the rounds that the dyes being used to achieve the orange colour of a certain apéritif are carcinogenic. The dyes in question are sunset yellow FCF (E 110) and Ponceau 4R (E 124), both of which are permitted for use in certain food products across the EU. One substantial prerequisite for approval is that a substance does not pose a health risk. This is assessed by the European Food Safety Authority (EFSA). EFSA concluded that there are no concerns regarding carcinogenic potential for these dyes.

### CONGLOMERATION OF MICROPLASTICS, DYES, & OTHER INGREDIENTS

Olive oil is supposedly diluted with mineral oil for bigger profits, chocolate is supposedly allowed to contain a certain amount of animal excreta, and the reason that older people are more likely to have cancer is supposedly due to exposure to radioactive irradiation of food in the microwave. These claims are often accompanied by all sorts of unsubstantiated promises of salvation through use of superfoods and food supplements – often instead of consultation with a medical professional. Given all the false and distorted information, the question inevitably arises as to who is making these claims and why?

## THE BFR FELT THAT IT WAS NECESSARY TO HIGHLIGHT THE HEALTH RISKS OF BOTH “DARES”.



What they all have in common is that the scientific community is under pressure to classify or correct these claims in ever shorter spans of time.

### HOT CHIPS, COLD DEODORANT

In the summer of 2023, two versions of another internet phenomenon, social media challenges, caused an international stir among adolescents, ultimately leading to a variety of emergency medical interventions. Thanks to the “hot chip challenge”, video clips of people eating an extremely spicy maize chip and then visibly struggling with the consequences spread like wildfire. The chilli ingredient capsaicin causes various symptoms, ranging from a burning sensation in the intestinal tract to nausea and circulatory problems. The ingredient was also present in amounts which carry an increased risk of damage to the stomach lining. After being banned in several German federal states (“Laender”), the manufacturer ended up withdrawing the product from the market. In the “deodorant challenge”, people sprayed deodorant on the same spot on their skin for as long as they could stand. The drop in temperature down to as low as -30 °C within a few seconds can cause serious skin damage. An even more dangerous version of the challenge involved intentionally inhaling the spray, which can lead to loss of consciousness, heart failure, and respiratory paralysis. The media has already drawn a connection



between the “deodorant challenge” and the deaths of several adolescents. The German Federal Institute for Risk Assessment (BfR) felt that it was necessary to highlight the health risks of both of these “dares”.

### CHALLENGE FOR COMMUNICATION

Thankfully, these extreme examples are not representative of the majority of challenges. Most of them involve dancing, singing, or engaging in athletic activity. When it comes to the particularly egregious cases such as the aforementioned misuse of deodorant or the deliberate chewing of laundry detergent gel pods, most people’s sense of personal risk prevents them from taking part in such challenges. Depending on the type of claim being made or the action being taken, providing scientific clarification can be more complex especially when there is a lack of data or studies on the matter in question. The speed at which such content goes viral poses a challenge for risk communication too. Regardless, in addition to general media literacy of consumers and reliable information, proper risk communication is an important building block for finding a healthy medium amid the masses of tips, tricks, myths, and dares. —

#### More information



BfR communication  
“Extremely spicy food”  
(pdf)

#### More information



BfR communication  
“Deodorant challenge”  
(pdf)