Bitterness and taste disorders after eating pine nuts: what's new since 2017?

Inedible types of pine nut may accidentally or fraudulently find their way onto the market and cause lingering taste disturbances. This phenomenon peaked in 2009, with 700 cases reported to the network of poison control centres in August of that year alone. Although there have been far fewer cases in recent years – around ten annually – the problem has not gone away and a slight increase was observed in 2021. ANSES reiterates the recommendations regarding this type of poisoning: report any persistent bitterness after eating pine nuts and keep the packaging so that the product batch concerned can be withdrawn or recalled.

Our first article in Vigil’Anses issue 4 drew consumers’ attention to taste disorders associated with the consumption of inedible pine nuts. This new article provides an update on this phenomenon, which may be decreasing but still persists, and sets out what to do about it.

As a reminder, pine nuts are small oilseeds that are generally consumed as is, or used to garnish a dish or a drink, or in culinary preparations such as pesto. Despite health controls, inedible (and therefore cheaper) varieties of pine nuts are offered for sale, often mixed with edible pine nuts, and can cause a particularly unpleasant taste disturbance called dysgeusia. This leaves a metallic and/or bitter taste in the mouth, which is exacerbated by eating or drinking any kind of food or drink. This occurs 24 to 48 hours after eating the pine nuts, and can last for several days or weeks. Sensitivity varies according to the individual: after consuming the same product, some will experience the adverse effect and others will not [1].

An alert that peaked in August 2009

An earlier retrospective study from March 2008 to January 2010 had counted more than 3000 symptomatic cases in France reported to the network of poison control centres after exposure to pine nuts. Most of these occurred in 2009 (see Figure 1) with a peak of around 700 cases in August 2009 [2].

This peak was due to the consumption of inedible pine nut species from China that had only recently arrived on the market. At the request of the European Commission, therefore, the Chinese authorities put in place strict export measures for their pine nuts and European import controls were stepped up.

Between January 2010 and September 2017 (see Figure 1), the number of cases fell sharply from around 1200 symptomatic cases in 2010 to around 50 per year between 2015 and 2017 [3]. Several years after the alert, cases were still therefore being regularly observed.

And since then? Fewer poisoning cases but a problem that still persists

For the period from 1 October 2017 to 31 December 2021 (see Figure 2), the number of cases further declined to an average of about 10 symptomatic cases per year from 2018 onwards, although with an upturn in 2021 (n = 27). These figures are still well below those observed in 2009.

In this study period, 68 people who were symptomatic after consuming pine nuts were counted in the poison control centres’ database. Dysgeusia was reported in 90% of these cases. The pine nuts had been purchased in various places in France: supermarkets, organic food shops and markets. In seven cases, i.e. about 10%, they were presented for sale loose (in bulk). It is important to note that in 19 cases (i.e. almost 30%), the consumers were unable to provide any information about the place of purchase, the commercial name of the product or the batch number. Without this information, the health authorities cannot withdraw or recall inedible pine nuts from the market to prevent others from suffering the same discomfort.

1. The study did not include people poisoned by pine nuts that were not purchased in France.
Recommendations for consumers

These new data show that cases of dysgeusia after pine nut consumption continue to occur, albeit in smaller numbers. ANSES reminds consumers of the importance of reporting any lingering bitterness after eating pine nuts. This can be done either by contacting a poison control centre directly (especially when medical advice is needed) or through the Ministry of Health’s adverse health events reporting portal. In the latter case, the report will automatically be transferred to the regionally competent poison control centre, which may contact the consumer to obtain further information. For action to be taken, it is particularly important to keep the product packaging so that the name, batch number, expiry date and place of purchase can be provided. This information will enable the withdrawal or recall of the product batch concerned to be triggered, and will prevent the occurrence of new cases.

In January 2022, ANSES established daily monitoring of cases of poisoning by pine nuts reported to the poison control centres, in order to be able to promptly identify non-compliant batches circulating in France and report them to the competent authorities.

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References:

