



Tell me

Episode 4: Why does chopping onions make me cry?

Hello everyone and welcome to *Tell me*, the Alimentarium's mini podcast. My name is Lynda and I'm one of the guides at the Alimentarium. If you've never heard of us before, the Alimentarium is the first museum in the world that looks at all aspects of human food. It's in Vevey, on Lake Geneva in the French-speaking part of Switzerland. We launched this series of podcasts in French a few months ago, to answer children's questions about food and nutrition.

This is a translation of one of the episodes and we hope that our English-speaking visitors will also find it interesting and that it might encourage you to send us your questions by e-mail or via social media. We've all got questions about food, no matter how old or young we are, and there's no such thing as a silly question... unless you already know the answer! So please write to us, in English if you prefer or, better still, send us an audio recording with your questions. We'll give you all the contact details at the end of this episode. In the meantime, sit back and enjoy listening to us answer Léna, who is 13 years old and who wants to know:

Why does chopping onions make me cry?

Well, just imagine how many tears all the generations before you have shed over onions! We've been eating onions for thousands of years, as a condiment to flavour certain dishes, and as a main vegetable in soups, fritters, pies, etc. Onions come in several colours... yellow, red, pink, white, and brown... and in different shapes too. Some are round; some are flat; and some oval.

Although nobody is sure where onions first grew, historians think they probably originated in Iran or, at least in the Near East. In any case, we know that onions were very popular all around the Mediterranean basin in ancient times. The Romans introduced them to the rest of Europe, where they became a staple foodstuff for peasants in the Middle Ages.

This was helped by the fact that onions are easy to grow, and keep well throughout winter, making them popular food when it's cold outside. However, our appreciation of onions has changed over history.

For example, in Ancient Egypt, both the rich and the poor enjoyed eating raw and cooked onions. They even used them as offerings to their gods! Yet during the Middle Ages and the Renaissance, European aristocrats despised onions. They left them for peasants to eat, as they supposed that the value and nobility of food was related to where it came from. So, they thought that things that grew underground, such as root and bulb vegetables, were

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vile and lowly. Eating such things was definitely beneath them!

Let's get back to the question though, about why onions make us cry.

Onions belong to the Liliaceae family, a large group of vegetables which also includes garlic, shallots, chives, and leeks. They all have a superpower! They absorb sulphur in the soil and store it in their cells!

The trouble is, when you want to eat an onion, and you slice or chop it with a knife, you rip its cells apart and this releases a chemical compound called alliin. It also releases an enzyme, called alliinase, which sort of cuts up the alliin chemically, releasing a gas which soon floats up to your eyes.

Once in your eyes, the gas transforms again and irritates them. Yes, it stings! You feel it most after about 30 seconds. That's when your body produces a lot of tears to clean out your eyes... so you cry, even though you aren't sad!

Do you want to know a little trick to stop this happening? I suggest you cut your onions under running water, as this will wash away most of the irritant molecules. Otherwise, you can put your onions in the freezer for 15 minutes before chopping them, as the cold temperature will slow down the chemical reaction.

So, there you have it! Now you know why chopping onions makes us cry!

If you've got questions about food, please send us an email or audio file to community@alimentarium.org or contact us via social media. Don't forget to give us your name, and your age too if that's ok with you! We look forward to hearing from you... and to answering your question in a future episode of our *Tell me* podcast!

Meanwhile, there's much more to explore on our website www.alimentarium.org/en.

Thanks for listening!

We hope you'll join us again soon!



Interactive illustrations and more episodes available on our website:

www.alimentarium.org/en