

What should (not) be in a smoothie?

- Most fruits and vegetables available on the market, as well as herbs, nuts, and seeds can be used for smoothies.
- However, give consideration to variety, diversity, and tolerance. Large amounts of high-fibre vegetables and cabbages can cause digestive problems.
- Depending on its growing conditions, spinach can contain varying amounts of oxalic acid, which among other things binds to calcium. Prolonged intake of large amounts of oxalic acid can lead to calcium deficiency and the formation of kidney stones.
- Dried plant parts, such as wheat or barley grass powder, should only be added shortly before consuming. These dried ingredients may contain microorganisms that can rapidly multiply in smoothies.
- You should only put plant parts into the blender that are usually consumed raw. Pits, stems, and peels can contain undesirable ingredients in greatly varying quantities. In individual cases, for example, they contain higher amounts of pesticide residues. The maximum levels are often only set and monitored for plant parts that are commonly consumed.

Smoothies are considered healthy. They are rich in vitamins and can help boost the immune system. But preparation does involve some potential risks.

It sounds simple: put fruit and vegetables into a blender, add some fresh herbs, and your delicious smoothie is ready. However, you should pay attention to certain things when selecting the ingredients and preparing them to ensure that no unwanted ingredients creep in, such as harmful plant substances, contaminations, or pathogens.

Kitchen hygiene matters

- As protection against foodborne diseases, fruit, vegetables, and fresh herbs should always be thoroughly washed and, if possible, peeled.
- The following applies in particular to young children, pregnant women and the elderly: avoid ready-to-eat mixed salads and only use frozen ingredients, such as raspberries, after you have heated them thoroughly.
- Smoothies are not suitable for meal prepping, i.e. preparing meals ahead of schedule. They should be consumed as soon as possible after preparation. Until then, they can be stored in the fridge at up to 7°C on the day of preparation until consumption.

More information



BfR-FAO "(Green) smoothies" (pdf)

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