

Could pizza herb prevent winter vomiting disease?

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Scientists have found that carvacrol – the substance in oregano oil that gives the pizza herb its distinctive warm, aromatic smell and flavour – is effective against norovirus, causing the breakdown of the virus' tough outer coat. The research is published today in the Society for Applied Microbiology's *Journal of Applied Microbiology*.

Norovirus, also known as the winter vomiting disease, is the leading cause of vomiting and diarrhoea around the world. It is particularly problematic in nursing homes, hospitals, cruise ships, and schools, and is a very common cause of foodborne-disease outbreaks. Although the disease is unpleasant, most people recover fully within a few days. But for people with an existing serious medical problem, this highly infectious virus can be dangerous.

Dr Kelly Bright, who led the research at the University of Arizona said "Carvacrol could potentially be used as a food sanitizer and possibly as a surface sanitizer, particularly in conjunction with other antimicrobials. We have some work to do to assess its potential but carvacrol has a unique way of attacking the virus, which makes it an interesting prospect."

Unfortunately the human form of norovirus is nearly impossible to work on in the laboratory so the research has been carried out using the mouse form of the virus, which is considered the most similar in its resistance to antimicrobials and disinfectants.

In the experiments, carvacrol appeared to act directly on the virus capsid – a tough layer of proteins that surrounds the virus – causing it to break down. This would give another antimicrobial the opportunity to enter the internal part of the virus and kill it. So if carvacrol is used as a sanitizer in the future, it's likely to be in conjunction with another antimicrobial. And because it is slower acting than many disinfectants, such as bleach, it would be best used as part of a routine cleaning regimen to provide long-lasting antimicrobial residue on surfaces.

The good news is that because carvacrol acts on the external proteins of the [virus](#), it is unlikely that norovirus would ever develop resistance. It would also be safe, non-corrosive and it won't produce any noxious fumes or harmful by-products. This makes it particularly attractive for use in settings where people are likely to be vulnerable to traditional bleach or alcohol based cleaners, such as schools, hospitals, long-term care facilities, child day-care centres, and drug and alcohol rehabilitation facilities.

The bad news: no amount of pizza could prevent [norovirus](#), and quite apart from other [negative health effects](#) of a mainly pizza diet, concentrated carvacrol, although non-toxic, would be quite unpalatable, causing a burning sensation and then numbness of the tongue!

Provided by Wiley

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