

## Pumpkin skin may scare away germs

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Pumpkin skin contains a substance with an antibacterial effect against microbes that cause millions of cases of yeast infections in adults and infants each year. Credit: Wikimedia Commons

The skin of that pumpkin you carve into a Jack-o'-Lantern to scare away ghosts and goblins on Halloween contains a substance that could put a scare into microbes that cause millions of cases of yeast infections in adults and infants each year. That's the conclusion of a new study in the current issue of ACS' *Journal of Agricultural and Food Chemistry*.

In the study, Kyung-Soo Hahm, Yoonkyung Park and colleagues note that some disease-causing <u>microbes</u> are becoming resistant to existing <u>antibiotics</u>. As a result, scientists worldwide are searching for new antibiotics. Past studies hinted that <u>pumpkin</u>, long used as folk medicine in some countries, might have antibiotic effects.



The scientists extracted proteins from pumpkin rinds to see if the proteins inhibit the growth of microbes, including Candida albicans (C. albicans). That fungus causes vaginal yeast infections, diaper rash in infants, and other health problems. One protein had powerful effects in inhibiting the growth of C. albicans, in cell culture experiments, with no obvious toxic effects. The pumpkin protein could be developed into a natural medicine for fighting yeast infections in humans, the report suggests. The protein also blocked the growth of several fungi that attack important plant crops and could be useful as an agricultural fungicide, they add.

More information: "Antifungal Mechanism of a Novel Antifungal Protein from Pumpkin Rinds against Various Fungal Pathogens", *Journal of Agricultural and Food Chemistry*, pubs.acs.org/stoken/presspac/p ... ll/10.1021/jf902005g

Source: American Chemical Society (<u>news</u>: <u>web</u>)

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