

# Ants self-medicate to fight disease

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*Temnothorax rugatulus*. Credit: Arizona State University

We humans have been using self-medication to cure the illnesses since the dawn of our species. There is some evidence that also other animals can exhibit this type of behavior, but the evidence has been hard to come by.

Scientists from the University of Helsinki, Finland, have now shown that black ant *Formica fusca* can change their taste for food once exposed to [fungal pathogens](#), ingesting [hydrogen peroxide](#), which can be found in damaged plants, other insects and cadavers.

"When ants are feeding on the diet containing extra free radicals they are able to survive infections significantly better. Moreover, the ants also choose the diet including extra free radicals after they are exposed to

fungus, but not in its absence," says researcher Dalial Freitak from the Faculty of Biological and Environmental Sciences.

"It is an amazing discovery that ants have an idea of their [health status](#) and seem to adjust the dosage of medicine correspondingly," adds fellow researcher Nick Bos.

For healthy individuals under no infection conditions, feeding on the free radical diet has the same detrimental side-effects as with any drug. But once infected, free-radical-feeding ants have about 20 percent higher probability of surviving the otherwise lethal fungal disease.

**More information:** "Ants medicate to fight disease." *Evolution* 2015. [DOI: 10.1111/evo.12752](https://doi.org/10.1111/evo.12752)

Provided by University of Helsinki

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