

# Curcumin may help overcome drug-resistant tuberculosis

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New research indicates that curcumin—a substance in turmeric that is best known as one of the main components of curry powder—may help fight drug-resistant tuberculosis. In Asia, turmeric is used to treat many health conditions and it has anti-inflammatory, antioxidant, and perhaps even anticancer properties.

Investigators found that by stimulating [human immune cells](#) called macrophages, curcumin was able to successfully remove *Mycobacterium tuberculosis*, the causative bacterium of tuberculosis, from experimentally infected cells in culture. The process relied on inhibiting the activation of a cellular molecule called nuclear factor-kappa B.

The ability of curcumin to modulate the immune response to *Mycobacterium tuberculosis* points to a potential new tuberculosis treatment that would be less prone to the development of drug resistance.

"Our study has provided basic evidence that curcumin protects against *Mycobacterium tuberculosis* infection in human cells," said Dr. Xiyuan Bai, lead author of the *Respirology* study. "The protective role of curcumin to fight drug-resistant tuberculosis still needs confirmation, but if validated, curcumin may become a novel treatment to modulate the host immune response to overcome drug-resistant tuberculosis."

**More information:** *Respirology* , [dx.doi.org/10.1111/resp.12762](https://doi.org/10.1111/resp.12762)

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