

Canned fish can still trigger allergic reactions, says study

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Scientists say the assumption that it's ok for people with a fish allergy to eat canned fish (without first undergoing a thorough assessment) can be wrong and dangerous.

Professor Andreas Lopata from James Cook University's Australian Institute of Tropical Health and Medicine (AITHM) and the Tropical Futures Institute (TFI) in Singapore led the [new study](#) published in the journal *Allergy*.

Fish allergy is highly complex and often life-threatening for a lifetime. Professor Lopata said the prevalence of [fish](#) allergy can be as high as 6% among children in countries where seafood is consumed frequently.

"Currently, there is no effective treatment. The management of fish allergy relies on complete avoidance of implicated fish in the diet of affected individuals, education—and then [emergency treatment](#) as a last resort," said Professor Dianne Campbell from the Children's Hospital in Westmead, Sydney.

Professor Campbell said despite this, [health professionals](#) sometimes recommend consumption of canned fish, in order to promote a [healthy diet](#) for those suffering from fish allergy.

Singapore-based co-author Dr. Thimo Ruethers said canned fish is subject to [extreme heat](#) during processing and some fish-allergic people are able to eat it safely, as demonstrated by oral food challenges conducted for this study.

"However, prior to this study the safety of consuming canned fish has not been evaluated with required comprehensive immunological and molecular analysis," he said.

The scientists tested 17 canned [fish products](#) available in Australia, from nine different manufacturers.

"Contrary to common belief, we found that although allergens ([allergy](#)-triggering fish proteins) were markedly reduced in canned fish,

they were not destroyed during the heating process. The canned product remained dangerous to some people with fish allergies," Dr. Ruethers said.

He said the consumption of canned fish by fish-allergic patients requires a careful assessment on an individual basis, often involving a supervised oral food challenge.

"It's also important to note that every canned fish product is different. Canned tuna appeared safer, as compared to canned salmon or sardine," Dr. Ruethers said.

"To the best of our knowledge, this is the first study of its type," lead author Dr. Aya Taki said.

"Based on our findings, we recommend that immunogenicity of canned fish should be further investigated, with a view to developing diagnostic tools for selection of fish-allergic patients who may be able to tolerate these products safely."

More information: Aya C. Taki et al, Thermostable allergens in canned fish: Evaluating risks for fish allergy, *Allergy* (2023). [DOI: 10.1111/all.15864](https://doi.org/10.1111/all.15864)

Provided by James Cook University

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