

Risk of ciguatera fish poisoning: impact on recommendations to eat more fish

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Aims: To characterize the risks of Ciguatera Fish Poisoning and to consider whether dietary recommendations need refining in view of those risks.

Background: Regular fish consumption has been recommended for both primary and secondary prevention of cardiovascular disease. Ciguatera Fish Poisoning (CFP) is the most frequently reported intoxication resulting from fish consumption in Australia. The ciguatoxin are produced by the unicellular *Gambierdiscus toxicus*, a component of plankton typically associated with bleached coral reefs. The clinical syndrome included gastrointestinal and prominent neurological symptoms. Regular fish consumers may accumulate a subclinical toxin level, and may be at increased risk of developing clinical and/or recurrent CFP.

Method: Medline, USDA, AFFA, CSIRO and AHA databases and websites search.

Results: Cold water fish species do not constitute a CFP risk and have a favorable long chain n-3 fatty acid profile, (Tuna, Atlantic Salmon, Blue-eye and Sardines). Warm water mackerels and reef fish, particularly Coral Trout pose the most significant CFP risk.

Conclusion: Recommendations regarding fish intake ought to include consideration of CFP as risks may outweigh benefits for some fish species.