

Botulism associated with home preserved mushrooms

In [June 1995](#) *Food Safety & Hygiene* commented on two separate incidents of food poisoning by *Clostridium botulinum* in **Italy** associated with roasted eggplant in oil.

Two clinical cases of botulism, one fatal, have now been reported in members of a family in the **United Kingdom** who ate home preserved mushrooms bottled in oil. The affected people had been given the mushrooms while on holiday in southern Italy by members of their family. The mushrooms were consumed without heating. Botulism toxin type B and the organism that produces it were subsequently detected in the mushrooms by the Public Health Laboratory Service Food Hygiene Laboratory (at Colindale).

Contamination of food products with *C. botulinum* which grows in the absence of air may or may not affect the taste of the food. Early recognition of the symptoms of botulism and treatment with antitoxin are extremely important because the antitoxin can inactivate the toxin formed by the bacteria only before it binds with neuromuscular receptors. When death occurs, it is usually because of respiratory failure in the victim.

The production and sale of vegetables in oil is becoming more common. These products may be sold through normal retail outlets or at neighborhood markets. Botulism is very rare in this country but it is necessary to take strict precautions when producing this style of product if the risk of food poisoning is to be avoided. The Food Science Australia Fact Sheet, '[Preservation of vegetables in oil and vinegar](#)' outlines a recommended procedure for their manufacture.

It is essential that sufficient acid, usually in the form of vinegar, is included in the formulation. As noted in the 1995 article, it is a requirement of the Australian Food Standards Code that this class of product has a pH below 4.6. The pH value is a measure of the acidity of a food. Foods with a pH below 4.6 do not in general support the growth of food poisoning bacteria including *C. botulinum*.

(Reference: A bulletin for the Australian Food Industry August 1998. *Produced by [Food Science Australia Information Services](#) PO Box 52, North Ryde 1670.
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