



To: Physicians, Nurses, and Other Health Care Providers in American Samoa  
From: Ron Kirschner, MD  
Medical Director, Nebraska Regional Poison Center  
Subject: Ciguatera fish poisoning update  
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- Ciguatera fish poisoning (CFP) is due to consumption of fish containing ciguatoxins that open sodium channels in nerve cells.
- Ciguatoxins are produced by microorganisms that are consumed by fish and concentrated in those higher on the food chain. The fish typically appear normal.
  - The risk of CFP is greatest with consumption of larger predatory reef fish.
- The classic findings of CFP include GI, neurologic, and cardiovascular effects.
- GI symptoms (vomiting, diarrhea, abdominal pain) typically resolve within 1-4 days but neuro effects may persist for weeks to months.
  - The most common neuro effects are paresthesias/dysesthesias of the face and extremities (often with a sensation of hot and cold reversal).
  - Bradycardia and hypotension are occasionally seen.
- The diagnosis of CFP is based clinical findings and a history of consuming reef fish. There are no blood or body fluid tests available to confirm the diagnosis.
- Treatment is primarily supportive; volume repletion and correction of any hemodynamic instability are the first priorities.
  - Mannitol (0.5-1.0 g/kg IV over 30-45 minutes) may alleviate neuro symptoms, and is most likely to be effective within 48-72 hours of fish consumption.
  - Amitriptyline and gabapentin, in doses prescribed for neuropathic pain, have been used to treat dysesthesias, but there are no controlled studies.
  - Alcohol or certain foods may exacerbate neuro symptoms in some patients, and they should avoid such foods for 3-6 months.
- The incidence of CFP can be reduced by avoidance of larger reef fish (> 3 kg).

#### References

Chan TYK. Severe bradycardia and prolonged hypotension in ciguatera. *Singapore Med J* 2013; 54: e120.  
Friedman, MA. Ciguatera fish poisoning: treatment, prevention and management. *Marine Drugs* 2008; 6: 456.

- **In American Samoa, health care professionals and the public can reach the Poison Center by calling 1-800-222-1222.**

**Our trained staff of nurse and physician assistant specialists in poison information and physician toxicologists is available 24 hours a day to answer your questions.**