Ciguatera Fish Poisoning

What is ciguatera fish poisoning?

- Ciguatera fish poisoning is one of the most common types of marine poisoning. It is caused by a toxin produced by small sea algae. These algae adhere to dead coral and are eaten by smaller reef fish.
- The smaller fish are eaten by bigger fish and the toxin travels up the food chain until a human eats a larger fish (e.g. snapper, barracuda, amberjack, moray eel, sea bass, sturgeon and parrot fish). This toxin is harmless to the fish but acts as a poison in humans.
- Ciguatera toxin does not affect the texture, appearance, taste or smell of fish. The toxin is not destroyed by stomach acid or by cooking, freezing, smoking or any other method of food preparation.
- The major risk areas for ciguatera fish poisoning are the Caribbean and South Pacific islands and tropical or subtropical areas between latitude 35° N and 35° S.
- Most coral reefs are not ciguatoxic. Outbreaks of ciguatera are usually very localized and are limited in time and distribution. Knowledge of toxic areas is usually based on the experience of local fishermen.

What are the symptoms of ciguatera fish poisoning?

- Symptoms can occur within minutes to hours after eating contaminated fish.
- Symptoms vary depending on the amount and parts of the fish eaten, as well as the fish’s size and species.
- Digestive symptoms such as diarrhea, abdominal cramps and vomiting can occur within 12 hours of eating the fish.
- Symptoms involving the nervous system can begin to occur within hours to days of the digestive symptoms. These can include:
  - numbness, tingling or a “pins and needles” feeling in the lips, mouth, throat, legs or arms
  - tooth pain
  - itching
  - muscle aches
  - blurred vision
  - weakness
  - heat and cold reversal (cold surfaces feel hot and hot surfaces feel cold.)
• Deaths, although rare, can occur due to low blood pressure and shock.
• Symptoms involving the nervous system may continue for weeks to months.
• Symptoms become more severe with each exposure to the toxin.

How do you prevent ciguatera fish poisoning?

• Avoid eating larger reef fish weighing more than 3 kg (6 pounds). Large fish are more likely to have acquired a high level of toxin.
• Avoid eating the heads or internal organs of fish. These parts of the fish contain more toxin.
• Avoid eating any fish that is considered dangerous by the local population.
• Never eat barracuda or moray eel and avoid or limit red snapper and grouper.

How do you treat ciguatera fish poisoning?

• Seek medical care to manage symptoms and prevent complications. Treatment may include vomiting to empty the stomach.
• If possible, obtain a sample of the fish for analysis.

For more information, call the International Travel Centre at (306) 655-4780
www.saskatoonhealthregion.ca/internationaltravel