



食物環境衛生署
Food and Environmental
Hygiene Department

Code of Practice

On

*The Import and Sale of Live Marine Fish
for Human Consumption*

For Prevention and Control of Ciguatera Fish Poisoning

CODE OF PRACTICE

Import and Sale of Live Marine Fish for Human Consumption

For Prevention and Control of Ciguatera Fish Poisoning

I. Introduction

This Code of Practice contains the minimum requirements in importing and selling live marine fish for human consumption to ensure food safety, especially in terms of the prevention and control of ciguatera fish poisoning. This Code is applicable to all importers, wholesalers (including local fish farms) and retailers (including restaurants selling live marine fish) who import or sell live marine fish. It is the responsibility of fish traders to ensure that the requirements have been met effectively to protect public health and to protect the public from ciguatera fish poisoning. Reference should also be made to other relevant documents e.g. licensing requirements and other legislation where appropriate.

II. Background

1. Ciguatera fish poisoning

Ciguatera fish poisoning is reported in Hong Kong from time to time, sometimes as large outbreaks. It is caused by the presence in the fish of toxins elaborated by the dinoflagellate and other algae that grow in coral reef areas. Fish eating the algae become toxic, and the effect is magnified through the food chain so that large predatory fish become the most toxic. This occurs worldwide in tropical areas.

Ciguatoxin does not cause any harm to the marine fish but may cause gastrointestinal and neurological symptoms in human several hours after consumption of the fish. Most cases of ciguatera fish poisoning are self-limiting. The toxin cannot be removed by normal cooking or refrigeration.

2. Ciguateric fish

Ciguateric fish cannot be identified by inspection, taste, texture or smell. Quick and reliable screening tests for ciguatoxic fish are currently not available. In general, the larger the fish the higher the level of toxin.

Ciguateric fish is found in tropical waters. In Hong Kong, cases of ciguatera fish poisoning had been related to live coral reef fish imported from areas such as, Nan Sha Islands and South Pacific.

According to past records of ciguatera fish poisoning cases reported in Hong Kong, fish species which are more likely to contain ciguatoxin include Moray eel, Lyretail Grouper, Black fin red snapper or Two-spot red snapper, Humphead wrasse, Tiger grouper, Flowery grouper and Spotted coral grouper.

Sizes of fish involved in reported cases usually ranged from one to five catties, but fish weighing less than one catty and fish weighing over 20 catties had also been reported.

III. Avoidance of High Risk Fish

Ciguateric fish has normal look, taste and smell. According to experience from the fish trade, certain types of fish from some specific areas carry particularly high risk of carrying ciguatoxin. Importers should avoid importing fish known to have a high chance of carrying ciguatoxin, or coral reef fish from unknown or suspicious sources. Wholesalers and retailers should avoid purchasing and selling these types of fish. The Food and Environmental Hygiene Department (FEHD) would regularly update and disseminate to the trade a list of fish that is considered to be of higher risk for ciguatera fish poisoning. Reference is made to recent ciguatera fish poisoning case reports when preparing the list. A current list of these types of fish is at Appendix I.

IV. Record Keeping

To allow prompt and effective control measures in case of the occurrence of ciguatera fish poisoning cases, importers, wholesalers and retailers should keep proper and accurate records of the supplies and distribution of all live marine fish with details on the source of fish, landing point, distribution, amount, types of fish, and addresses and names of purchasers and distributors for at least 60 days counting from the date of each transaction. (See Table 1 for details.) The records should be readily available for inspection at all times by officer(s) of the Government of the Hong Kong SAR.

Table 1 Records to be Kept by Importers, Wholesalers and Retailers

Records to be Kept	Importers	Wholesalers	Retailers
<u>About the catch</u>			
Source of fish	✓	✓	
Landing point	✓		
<u>Sales details</u>			
Date of purchase		✓	✓
Name and address of supplier		✓	✓
Date of distribution	✓	✓	
Names and addresses of purchasers	✓	✓	
<u>Details on the fish</u>			
Type of fish	✓	✓	✓
Amount of fish	✓	✓	✓
Size of fish	✓	✓	✓

V. Reporting of Fish Imports

Importers are required to report to FEHD for every import of live coral reef fish. Importers should make the reporting within 48 hours of arrival of every shipment the date of arrival, amount, type, size and source of fish imported using the form at Appendix II.

VI. Sampling of Fish for Laboratory Testing

In the absence of a quick and reliable test for ciguatoxin, routine testing of fish is not effective in preventing ciguatera fish poisoning. Laboratory tests with reasonable reliability, including mouse bioassay, neuroblastoma assay and high performance liquid chromatography, are provided by certain local and overseas institutes. Such laboratory tests take longer time to perform. Ciguatoxin occurs in a sporadic manner in fish. Even with the most reliable test, it is difficult to draw conclusions on a fishing area or a batch of fish basing on laboratory results of a selected sample of the fish only.

Fish traders may make their own arrangement to send samples of fish for ciguatoxin testing using the more reliable tests. However, traders should understand the drawbacks and limitations of sample testing. Negative samples do not imply that fish from the same fishing ground are all free from ciguatoxin.

VII. Ciguatera Fish Poisoning Incidents

Upon receipt of notifications of ciguatera fish poisoning from the Department of Health, the FEHD will inform the traders involved of the incident. The traders involved should immediately stop sale and distribution of, and make every effort to recall the incriminated batch of fish. The traders involved should also provide details, records and relevant documents on the distribution of the incriminated batch of fish and report the progress of recall to the FEHD. The trade would alert their members and trading partners for the incidents. When public health is believed to be threatened or compromised, FEHD may consider disclosing the names of the traders involved

VIII. Review of the Code of Practice

This Code of Practice will be reviewed regularly in consultation with the fish trade and other relevant parties.

Food and Environmental Hygiene Department
The Government of the Hong Kong Special Administrative Region

December 2004

List of Fishes at Higher Risk of Ciguatera Fish Poisoning

<i>Fishes Involved in Ciguatera Fish Poisoning Outbreaks in Recent Years:</i>
Leopard Coral Grouper
Two-spot Red Snapper
Lyretail Grouper
Flowery Grouper
Moray Eel
Spotted Coral Grouper
Tiger Grouper
Hump Head Wrasse



香港金鐘道六十六號金鐘道政府合署四十二至四十五樓
42/F-45/F Queensway Government Offices, 66 Queensway, Hong Kong

Record of Live Coral Reef Fish Imports

Please complete this form and send it to the Veterinary Public Health Section of FEHD by fax within 48 hours upon arrival of live coral reef fish imports in Hong Kong (Fax number : 2521 8067). Should you have further enquiry, please contact us at 2867 5452.

The personal data in this form is supplied to FEHD by the informants voluntarily for monitoring of coral reef fish imports and sources of fish incriminated in ciguatera fish poisoning incidents. All the information collected will only be read by the staff concerned. If you want to view or amend the personal data, please contact the Veterinary Public Health Section of FEHD at 2867 5452.

Company : _____
 Contact person : _____ Telephone : _____
 Address : _____
 Source (Country) : _____ (Area) : _____
 Route of Transport* : By air/ sea/ land
 (Flight no./ Vessel registration no./ Vehicle registration no. : _____)
 Date of Arrival : _____ Landing Point : _____
 Total weight of Coral Reef Fish : _____

Fish type	Total Weight (KG)	Average Weight (KG)	Remark
1. Giant Grouper			
2. High fin Grouper			
3. Tiger Grouper			
4. Lyretail Grouper			
5. Flowery Grouper			
6. Blacksaddled Coralgrouper			
7. Leopard Coralgrouper			
8. Squaretail Coralgrouper			
9. Malabar Grouper			
10. Humphead Wrasse			
11. Potato Grouper			
12. Crown Sweetlip			
13. Two-spot Red Snapper			
14. Moray eel			
15. Speckled blue grouper			
16. Blackspot Tuskfish			
17. Blue-barred Orange Parrotfish			
18. Coral Grouper			
19. Star Snapper			
20. Highfin Coralgrouper			
21. Other fish			

* Please delete the **INAPPROPRIATE** items