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# Survey on Popular Food Items: Street Snacks

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Centre for Food Safety

Food and Environmental Hygiene Department

**July 2008**

# Background

- Street snacks is a distinguishing feature of Hong Kong. Everyday, many street vendors are manufacturing various kinds of food and attracting many people to eat frequently. Therefore, the safety of these foods is all along an issue of concern.
- In view of this, the Centre for Food Safety (CFS) recently conducted a project on street snacks as the latest theme of “Survey on Popular Food Items” to assess their safety.
- Tests include microbiological testing and chemical analysis.



# Testing items



## Microbiological testing

- Include pathogens such as *Bacillus cereus*, *Salmonella*, *Staphylococcus aureus* and *Vibrio parahaemolyticus*.
- Street snacks may associate with unsatisfactory hygiene conditions because:
  - Storage of raw and cooked food in the small sized food premises can easily cause cross contamination
  - Large serving volume by using simple cooking utensils may lead to inadequate cooking of food
  - Hot environment allows rapid bacterial growth

# Testing items (cont'd)

## Chemical analysis

- Street snacks may not be made from fresh raw materials. Hence, colouring matters are commonly applied to them to make them more colourful and attractive, e.g., pork intestine, fruit juice, vegetarian food, curry sauce and egg products, etc. Therefore, colouring matters (including Sudan dyes) is one of the major testing parameters in this project.
- CFS also collected vegetable samples for testing of pesticide residues.



# Testing items (cont'd)

## Chemical analysis

- Include aflatoxin in frying oil and its quality.
  - Certain types of plant oil such as peanut oil may be contaminated by naturally occurring aflatoxin. Long term intake of aflatoxin can be associated with liver cancer.
  - Upon heating, frying oil may undergo chemical reactions that worsen its quality, e.g., the unpleasant flavour due to oxidation. As such, testing also include peroxide value of frying oil to assess its quality.



# Types of food tested

- 345 samples of various street snacks were collected from over 200 retail outlets for testing.

Type of food	No. of samples	Percentage
Stewed food, egg & marinated (lo sui) food	116	34%
Grilled and baked food	87	25%
Non-bottled drink and confectionery	56	16%
Deep-fried/ stir-fried food & frying oil	53	15%
Sauce and others	33	10%
<b>Total</b>	<b>345</b>	<b>100%</b>

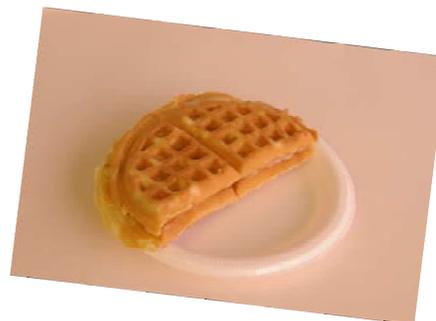
# Stewed food, egg & marinated (lo sui) food

- Samples include fish ball, squid, beef ball, shrimp ball, cuttlefish ball, pork skin, pork blood cubes, beef brisket, pork intestine, pig oviduct, cart noodles, tea egg, egg with vinegar and ginger, quail egg, marinated (lo sui) egg, marinated (lo sui) beef omasum, marinated (lo sui) ox tripe and marinated intestine.



# Grilled and baked food

- Samples include sausages, chicken leg, chicken wing, pork/ beef/ chicken skewer, grilled dried squid, sugar roasted chestnut, baked sweet potato, baked octopus ball, egg waffle and grid cake.



# Non-bottled drink and confectionery

- Samples include flavoured ice beverage, soy milk, fresh fruits/vegetables juice, glutinous rice ball, steamed rice cup cake, white sugar sponge cake, soybean curd dessert, peanut brittle and dragon's beard candy.



# Deep-fried & stir-fried food and frying oil

- Samples include deep-fried dace fish ball, deep-fried sweet potato, fried stuffed tofu, fried stuffed green pepper, fried stuffed eggplant, stinky tofu, deep-fried pork intestine, whelks in XO sauce, stir-fried clam, stir-fried noodle/ vermicelli and frying oil.



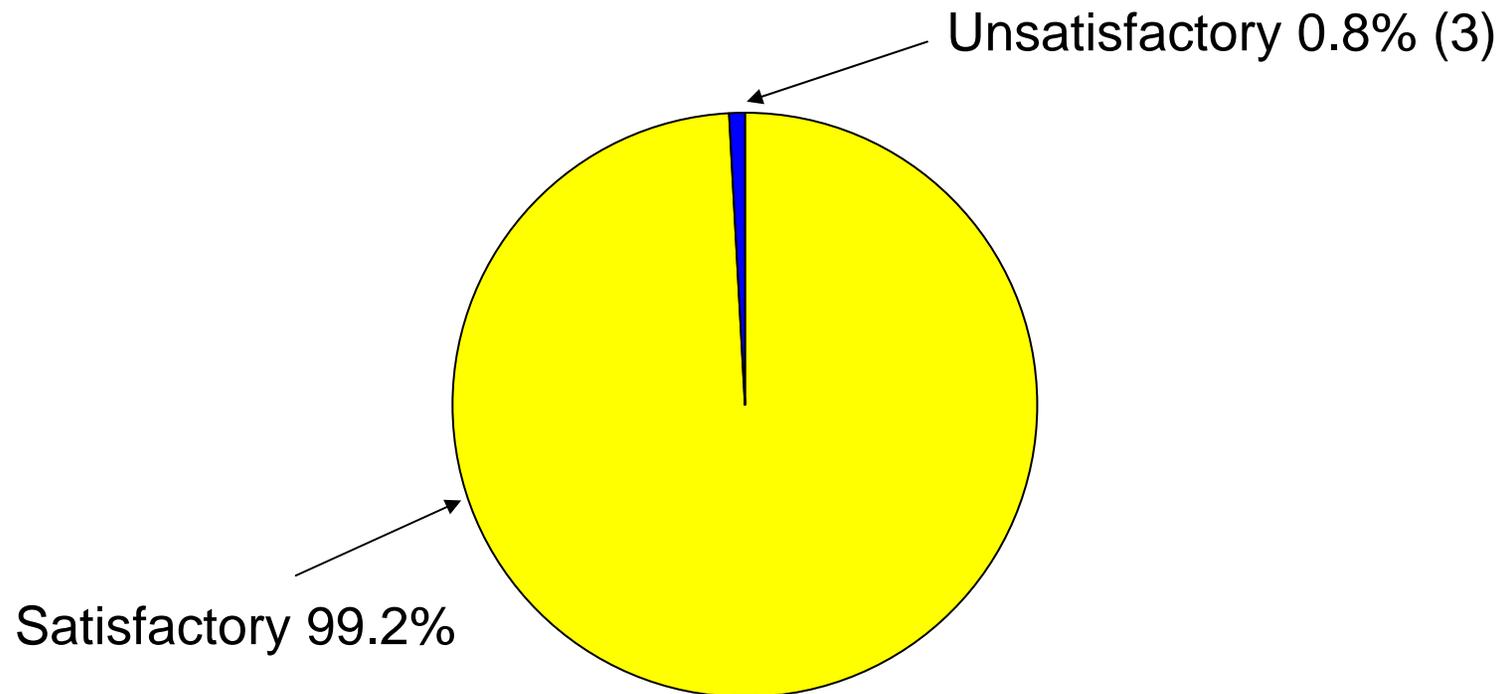
# Sauce and others

- Samples include curry sauce, satay sauce, shark fin soup, Chinese fish and lettuce soup, fish siu mai, steamed dumplings, steamed rice-roll, vegetarian food and cold lo mein.



# Overall results

- 3 samples were unsatisfactory. Overall satisfactory rate was 99.2%.



# Unsatisfactory samples

- 3 unsatisfactory samples:

Sample	Unsatisfactory testing item	Result
2 curry squids and 1 deep-fried pork intestine	Orange II (colouring matter)	Detected <sup>(1)</sup>

(1) Not permitted in food. It is of low toxicity and should not pose significant health effect on consumers.



# Follow-up actions

- Issue warning letters to concerned vendors.
- Take follow-up samples.
- Take prosecution actions if there is sufficient evidence.

# Advice for trade

- All unsatisfactory samples involved the use of non-permitted colouring matters in food. The trade should use only permitted food additives, follow good manufacturing practice & comply with legal requirements for manufacturing food products.
- To ensure the quality of frying oil, food business should:
  - choose frying oil of good quality and consistent stability;
  - filter frying oil frequently to remove food particles;
  - replace frying oil frequently to maintain quality.



# Advice for trade

- Although all samples for microbiological testing were satisfactory, the trade should always comply with hygienic practices:
  - ❑ maintain good personal hygiene
  - ❑ wash raw materials thoroughly
  - ❑ cook food thoroughly
  - ❑ separate raw food from ready-to-eat food to prevent cross contamination
  - ❑ always cover food properly (including those for display) and keep food at safe temperatures (4°C or below; above 60 °C)



# Advice for consumers

- Do not purchase from unlicensed hawker. Buy foods only from licensed and reliable food premises.
- Note the food storage conditions of street vendors. Do not purchase foods which have been improperly stored, e.g., those were not covered well or kept under ambient temperature for prolonged period.
- Do not eat food which is undercooked, inadequately reheated or of abnormal colour and taste.
- Maintain a balanced diet to minimize risk. Avoid eating too much street snacks as some of them are high in energy, sugar, fat and/or cholesterol.

