

Press Release

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Almost One-fourth of Hong Kong People Consider it Proper to Reuse Cooking Oil Stored for Over 10 Days
Expert Warns Increased Risk of Heart Disease and Cancer brought about by Homemade 'Million Year Oil'

Becoming increasingly health-concerned, many Hong Kong people are worried about the threat imposed by 'million year oil' in restaurants, but are unaware of reusing cooking oil at home and even store up used cooking oil for over 10 days, unconsciously producing 'million year oil'! Expert warns reusing cooking oil on a long-term basis could increase the risk of developing heart disease and certain type of cancer. The Hong Kong Edible Oils Association (HKEOA) urges the use of an appropriate amount of fresh quality oil for cooking, avoids reusing cooking oil to safeguard the health of family members.

To understand Hong Kong families' habit of reusing cooking oil, HKEOA commissioned the Public Opinion Programme of the University of Hong Kong (HKUPOP) to conduct a survey in January 2010, which successfully interviewed 505 Hong Kong citizens. Dr. Robert T. Y. Chung, Director of the HKUPOP, will present result of the survey at a press conference today.

Most worried when eating out: Use of 'million year oil' at restaurants

Result indicates 57% of Hong Kong people worried about the quality of cooking oil used by restaurants, among which 86% expressed concern over the use of 'million year oil' by restaurants.

Unconsciously producing 'million year oil' at home, posing threat to health

'Million year oil' however, could originate from home as many Hong Kong households do reuse cooking oil. Survey result shows that 88% of respondents whose family would cook at home have prepared food by frying or deep frying before, 73% had reused cooking oil in the past under different circumstances, and 56% would reuse cooking oil if there is no change in colour or smell of the oil. At the same time, 29% of Hong Kong people thought cooking oil used for frying or deep frying could still be reused for 2-3 times, and almost one-fourth (23%) would even reuse cooking oil which is properly stored for over 10 days.

Reuse of cooking oil increases the risk of heart disease and cancer

Prof. Edmund T.S. Li, Associate Professor of HKU School of Biological Sciences as well as Honorary Consultant of HKEOA, points out that Hong Kong people have a lot of misconceptions towards reusing cooking oil. He deciphers the four major misconceptions of reusing cooking oil, as follows:

Mystery 1: What's wrong with reusing cooking oil?

According to Prof. Li, chemical properties of cooking oil would undergo changes upon heating. During the heating process, triglyceride will decompose, and more than 200 substances including peroxides will be produced. Upon ingestion of cooking oil with graded amounts of peroxide, concentration of conjugated diene in chylomicron particles of blood will increase accordingly. Peroxides and its by products will produce free radicals which directly associate with risk of developing chronic diseases such as heart disease and cancer. Besides, PAHs in airborne grease

increase risk of developing lung cancer. Latest study in 2009 indicated cooks exposed to cooking-oil fumes without adequate air ventilation by exhaust-hood had doubled the amount of oxidized DNA in their urine. Research also show that rats fed with oil heated under high temperature for a long period of time, had liver damaged by oxidized and polymerized oil. Their offspring were also lighter and had smaller livers.

Mystery 2: Is 'million year oil' harmful only after being used for many times, like that in restaurants? Prof. Li points out heated cooking oil with colour darkened, texture thickened or foam formed that does not disappear easily is unsuitable for reuse. He also quotes the result of a laboratory simulation of dinner preparation for a family of four, which indicates drastic increases in anisidine level (17 times), peroxide level (27 times) and the amount of free fatty acids (26 times). Based on these data, it is obvious the chemical property in oil undergo great changes even after being used for only once, and consumption of reused oil on a long-term basis is thus, harmful to health.

Impossible to differentiate quality of used cooking oil with naked eye

Mystery 3: How to find out if used cooking oil has deteriorated?

Prof. Li quotes another simulation test on cooking oil, which indicates using the same cooking oil to deep fry French fries and chicken wings for three consecutive days would bring about apparent rises in anisidine level (39 times), peroxide level (11 times) and the amount of free fatty acids. Prof. Li explains the carbohydrates and proteins from seasoning and food darkened the oil colour. Yet at the same time, many harmful substances could not be distinguished by naked eye, the re-usability of heated cooking oil could not be guaranteed even with its residue removed and without any change in colour, texture or smell. For better health, the best way is to avoid reusing cooking oil.

Mystery 4: Is there any 'shelf life' for used cooking oil?

Prof. Li further reveals test results on oil that had the residue removed and stored under room temperature for up to five days after deep frying French fries and chicken wings. The peroxide level in oil had already increased for 23 times after frying. During storage, the level kept rising for 8-10% per day. On the fifth day, the peroxide level had increased for 42% since day one. The amount of free fatty acids rose for 67% right after deep frying, and increased for another 50% reaching the fifth day. Prof. Li states these data evidently indicate that the amount of harmful substances in used oil would keep increasing, despite being used for only once, covered and stored under room temperature.

Recommendation on Household Usage of Cooking Oil

HKEOA has always advocated and educated the public on information related to cooking oil and health. Mr. Francis Sze, Chairman of HKEOA, states that quality cooking oil consists of a variety of nutrients. With the use of an appropriate amount of fresh quality cooking oil and suitable cooking methods, the nutrients in oil could be absorbed, including monounsaturated fatty acids (MUFA) which is good for the heart, and at the same time making the food more delicious.

HKEOA suggests to store cooking oil inside covered containers and at a cool place. The use of the same oil for prolonged cooking or throughout a meal preparation should be avoided.

Suggestions on cooking techniques from registered dietician

To educate the public how to enjoy food without using excessive oil, Mr. Leslie Chan, registered dietician and Chef of a TV cooking programme will demonstrate techniques of healthy and tasty cooking, including:

- Use table spoons to measure and control the amount of oil;

- Use cooking utensils with flat surfaces to increase the surface of contact between food and oil;
- Fry multiple pastries and cakes at the same time to avoid oil wastage;
- Add cooking oil at the stage of seasoning instead of during cooking

With Chinese New Year approaching, many families will prepare New Year snacks for celebration. Mr. Sze reminds the public, "The right amount of quality cooking oil should be used, avoiding reuse, so that your family can enjoy both tasty Chinese New Year food and remain healthy."

About Hong Kong Edible Oils Association (HKEOA)

Established in 2006, HKEOA is the first association representing the edible oil industry, made up of leading edible oil producers and distributors. The association members belong to companies which produce and sell branded oil products with 70% market share of local edible oil retailing and the food and beverage industry, representing over 15 leading edible oil brands. HKEOA aims to act as a bridge for communication among the industry, government and consumers, bringing together people and organizations of the industry for its advancement and edible oil quality enhancement. Website of Hong Kong Edible Oils Association: www.hkeoa.org

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