



衛生署

Department of Health

Poisoning Watch

Volume 6, Number 1
December 2013

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Introduction

Nowadays, a misconception prevails and that is, being slim is beautiful and healthy. Some people may look for quick and easy ways to reduce body weight such as taking slimming products. This phenomenon is partially aggravated by extensive commercial promotion of multifarious weight reduction products, e.g. health supplements, slimming coffee/tea, etc. through advertisements in public places and printed and electronic media. Nevertheless, people generally do not have sufficient knowledge of the ingredients of slimming products, let alone understanding their health risk before taking them. In this issue, we summarised the local situation of adverse effects / poisoning related to intake of slimming products.



衛生防護中心
Centre for Health Protection





Local situation of adverse effects / poisoning associated with slimming products

From 2010 to 2013 (up to June), the Department of Health (DH) had received a total of 58 reports of adverse effects or poisoning related to consumption of slimming products. All patients were females aged from 15 to 53 years (median: 25 years) (Figure 1). As shown in Figure 2, the most common symptoms of the reported cases were psychiatric symptoms (32/58, 55.2%), such as hallucination and delusion. Cardiovascular symptoms, including chest discomfort and palpitation, ranked second (16/58, 27.6%). Other presenting symptoms included loss of consciousness, malaise, tea-coloured urine, etc. Majority of the cases required hospitalization (53/58, 91.4%).

Figure 1: Number of cases of adverse effects or poisoning related to slimming products, 2010 to 2013 (up to June)

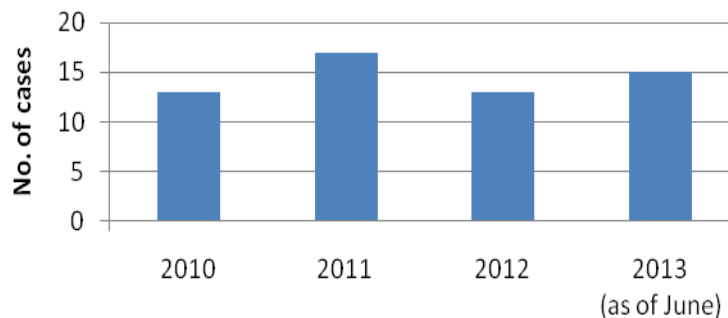
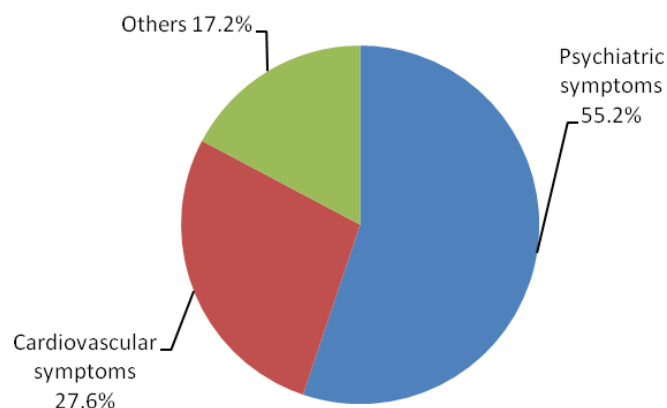
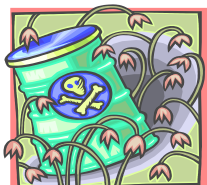


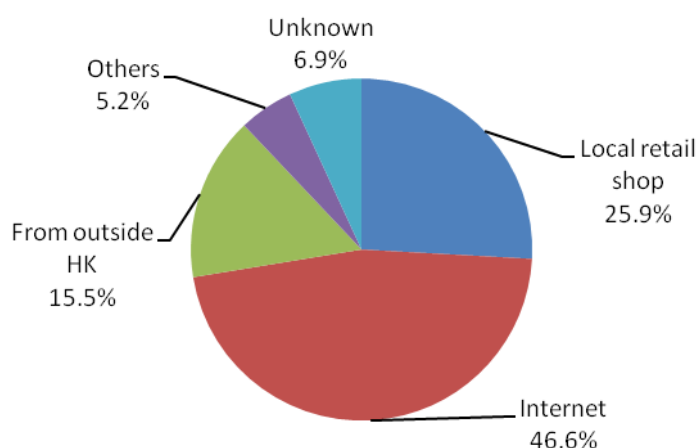
Figure 2: Distribution of presenting symptoms among the 58 cases, 2010 to 2013 (up to June)





Among the 58 cases, almost half (27/58, 46.6%) purchased the slimming products from the internet, one quarter from local retail shops (15/58, 26%) and the remaining from outside Hong Kong (9/58, 15.5%) or other sources (Figure 3).

Figure 3: Sources of the slimming products among the 58 cases, 2010 to 2013 (up to June)



Drugs / substances found in the slimming products and their adverse effects

As part of the investigation, remnants of the incriminated slimming products, if any, would be obtained from the patients for laboratory analysis. Remnants were available in 53 out of the 58 cases and all were found to contain undeclared or banned drugs / substances. Thirty-six remnants (36/53, 67.9%) contained more than one undeclared or banned drugs / substances. The most common one was sibutramine (52/53, 98.1%), followed by phenolphthalein (26/53, 49.1%), animal thyroid issue (12/53, 22.6%) and diuretics (6/53, 11.3%).

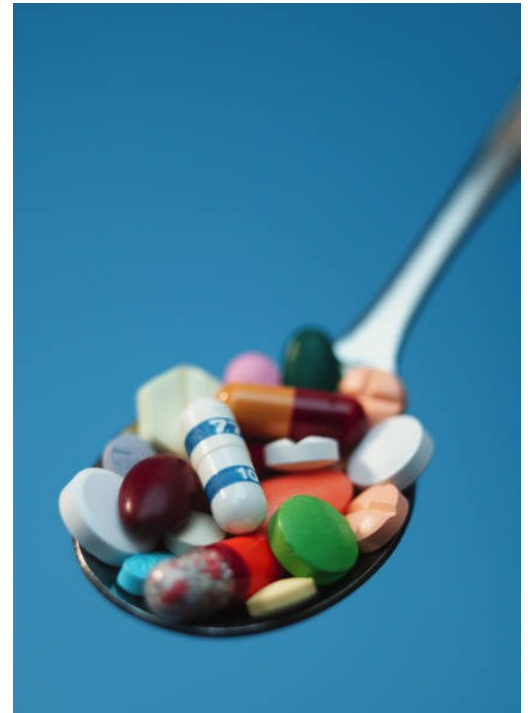


Sibutramine

Sibutramine is a Part I poison in Hong Kong. Under the Pharmacy and Poisons Ordinance (Cap. 138) and its Regulations, all pharmaceutical products must be registered with the Pharmacy and Poisons Board of Hong Kong before they can be sold legally in the market. Illegal sale or possession of unregistered pharmaceutical products and Part I poisons are criminal offences. The maximum penalty for offences under the Pharmacy and Poison Ordinance upon conviction is a fine of \$100,000 and imprisonment for 2 years.

Sibutramine is an appetite suppressant. It had been used for the treatment of obesity previously. However, there may be a gradual reversal of weight loss once intake of sibutramine is stopped.

The Sibutramine Cardiovascular Outcomes Trial (SCOUT) study conducted between January 2003 and March 2009 in Europe, Latin America, and Australia showed a higher rate of cardiovascular events such as heart attack and stroke in obese and overweight patients using sibutramine than in patients managing their weight through exercise and diet alone. In view of the findings of the SCOUT study, the use of the product in Hong Kong, and regulatory actions taken by other international regulatory agencies, DH de-registered all pharmaceutical products containing sibutramine in November 2010, as recommended by the Pharmacy and Poisons (Registration of Pharmaceutical Products and Substances: Certification of Clinical Trial/Medicinal Test) Committee.



**Phenolphthalein**

Phenolphthalein was once used for treatment of constipation but has been banned as a pharmaceutical product in Hong Kong since 2001 because of its possible cancer-causing effect. Phenolphthalein has been found to be genotoxic and it can damage or cause mutations to DNA.

Animal thyroid tissue

Animal thyroid tissue contains a mixture of thyroid hormones which increase the basal metabolic rate leading to weight reduction. It carries a risk of hyperthyroidism and cardiovascular complications.

Diuretics

Diuretics are prescription-only medicines used for the treatment of conditions like congestive heart failure, high blood pressure and edema. It may cause hypotension and electrolyte imbalance with loss of potassium, calcium, sodium, and magnesium. Serious adverse effects from overdose may lead to dehydration, seizures, kidney damage, collapse or even coma.

Are you overweight or obese?

It is common to use Body Mass Index (BMI) for assessment of overweight and obesity in adults. It is calculated by dividing the body weight (in kilograms, kg) by the square of height (in metres, m), i.e. kg/m^2 . According to the World Health Organization (WHO)'s standard for Asian adults, BMI from 23.0 to less than 25.0 kg/m^2 is classified as overweight and BMI 25.0 kg/m^2 or above is classified as obese. Another method is to measure the waist circumference. A waist circumference over 90cm or about 36 inches for males, or over 80cm or about 32 inches for females, is considered central obesity.



Harmful effects of obesity and overweight

Obesity increases the risk for a number of chronic diseases, including hypertension, heart disease, hypercholesterolaemia, diabetes mellitus and cerebrovascular disease. Some studies reveal that obese children are more likely to remain overweight and obese in adulthood, and obese adults are more likely to suffer from non-communicable diseases (NCDs) such as heart disease, diabetes, stroke and cancer. According to WHO, 44% of the diabetes burden, 23% of the ischaemic heart disease burden and between 7% and 41% of certain cancer burdens are attributable to overweight and obesity. Notwithstanding the above, it is important to achieve weight control through proper ways.

Local prevalence of obesity and overweight

DH has set up a Behavioural Risk Factor Surveillance System since 2004 to collect information on health-related behaviours of Hong Kong's adult population aged 18 to 64 through telephone surveys conducted systematically and periodically. The System monitors, among others, the prevalence of overweight and obesity among adults aged between 18 and 64 according to the WHO's classification for Asian adults. According to the 2012 Survey, 36.6% of respondents had a BMI of 23.0 or above (i.e. classified as overweight or obese). Those with a BMI of 25.0 or above (i.e. classified as obese) comprised 18.8%. A higher proportion of males (47.2%) than females (27.8%) were classified as overweight or obese. People aged 45 to 54 had the highest proportion (51.1%) of being overweight or obese.





Proper ways of weight control

Weight gain is a consequence of the imbalance between energy gained from food or beverages and energy expended in normal body functioning or daily activities. Overweight and obesity is largely attributable to the lifestyles of unhealthy dietary habits, the wide availability of high fat and sugary foods and the lack of physical activity. Overseas and local medical researches indicate that these unhealthy lifestyles are the cause of many NCDs. In this regard, overweight and obesity should be managed by adopting healthy lifestyles, especially having a balanced diet and regular exercise, rather than taking slimming products.

Physical activity should be done with perseverance. Adults should engage in at least 150 minutes of moderate-intensity aerobic physical activity, or 75 minutes of vigorous-intensity aerobic physical activity, or equivalent amounts every week for improved health.





Healthy eating can be made possible through:

- ⇒ Following the recommendations of the food pyramid to eat a wide variety of food and have a well-balanced diet;
- ⇒ Eating grains and cereals in every meal, especially high-fibre options like red rice, brown rice, rice with added vegetables, buckwheat noodles or wholemeal bread, etc.;
- ⇒ Eating at least two servings of fruit and three servings of vegetables every day;
- ⇒ Choosing food containing less salt, fat and sugar, e.g. low-fat milk/skimmed milk, lean meat, fish, poultry with skin removed, fresh fruit and vegetables, etc.;
- ⇒ Reducing consumption of preserved or processed food, e.g. ham, bacon, sausage, preserved Chinese sausages or meat, salted duck egg, salted fish and preserved vegetables, etc.;
- ⇒ Avoiding snacks high in salt, fat/oil and sugar, e.g. potato chips, deep-fried chicken drumsticks, hamburgers, candies, soft drinks and instant noodles, etc.; and
- ⇒ Preparing food with low-fat cooking methods, e.g. steaming, boiling, baking and poaching, etc.





All registered pharmaceutical products should carry a Hong Kong registration number on the package in the format of "HK-XXXXX". Unregistered pharmaceutical products have not been evaluated by the Pharmacy and Poisons Board and their safety, quality and efficacy may not be guaranteed. Members of the public should consult healthcare professionals before using any product for weight control. People should not, out of their own accord, buy or use products of unknown or doubtful composition, in particular those purchased from the internet and areas outside Hong Kong. They should consult health-care professionals if they have doubt over the products or feel unwell after taking the product.

More information about healthy eating, physical activity and prevention of NCDs is available at DH's Health Zone (www.cheu.gov.hk) and on the "Change for Health" website (www.change4health.gov.hk).

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