



衛生署

Department of Health

# Poisoning Watch

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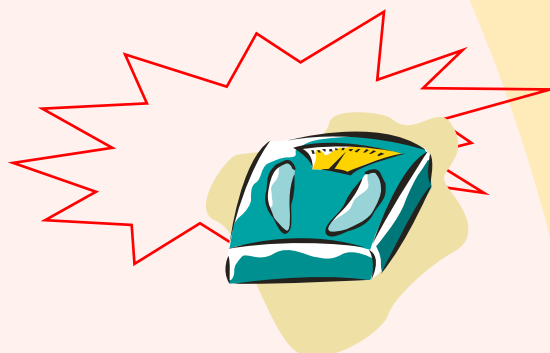
### Slimming products Are you aware of any serious adverse effects?

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## Slimming products — Are you aware of any serious adverse effects?

### Introduction

Overweight and obesity are defined as abnormal or excessive fat accumulation that presents a risk to health. Body mass index (BMI) is commonly used in classifying overweight and obesity in adult populations and individuals. It is defined as the weight in kilograms divided by the square of the height in meters ( $\text{kg/m}^2$ ). Although the causality of obesity is not completely understood, it is linked to several metabolic, genetic, and environmental factors. The epidemic of overweight and obesity is part of a worldwide trend, and it is contributing to increasing levels of non-communicable diseases such as hypertension, cardiovascular heart disease and diabetes mellitus. Overweight and obesity are in epidemic proportions throughout Hong Kong. According to the Hong Kong Population Health Survey 2003 / 04, close to two-fifths (38.8%) of persons (aged 15 or above) were categorized as overweight or obese (BMI value of  $23 \text{ kg/m}^2$  or above).

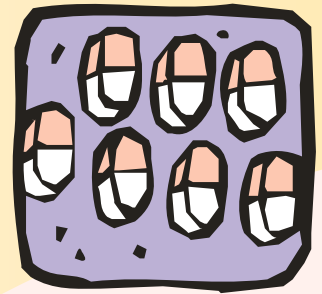


衛生防護中心  
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## Slimming products

Every day we can easily come across various advertisements on products that promote weight loss, including slimming pills, creams, gels, tea bags, etc. Consumers should be cautious if the product claims are 'too good to be true'. Many products are marketed as dietary or health supplements, and claimed to be composed of only natural or herbal ingredients. In some cases the complete ingredients of the slimming products may not always be listed. There have been examples where a slimming product contained undeclared western medicines / drug analogues that could endanger the health of consumers. People with chronic illness and required regular medications are more vulnerable to the side effects / drug-drug interactions of these slimming products.



## Facts and statistics

From January 2007 to March 2010, the Department of Health had received 39 established poisoning cases related to slimming products (5 in 2007, 20 in 2008, 13 in 2009 and 1 in 2010 as of March 2010). A total of 41 patients were involved and their ages ranged from 13 to 56 (except one case which involved a 3 year old child who accidentally consumed the product). Most of the victims were female (>90%).

The slimming products in our reported cases are not registered proprietary Chinese medicines / pharmaceutical products in Hong Kong. Sibutramine was detected as an underclared drug ingredient in the slimming products in 37 cases (4 in 2007, 20 in 2008, 12 in 2009 and 1 in 2010). In addition, some of these slimming products may contain more than one undeclared ingredient which could potentiate the harmful risks.



## What is sibutramine?

Sibutramine has been marketed as an appetite suppressant for the treatment of obesity. It acts as a neurotransmitter reuptake inhibitor which reduces the reuptake of neurotransmitters such as serotonin, norepinephrine and dopamine. By blocking their reuptake, sibutramine increases the amount of these neurotransmitters in the brain which helps to enhance satiety. However, on stopping sibutramine, there may be a gradual reversal of weight loss.

Under the Pharmacy and Poisons Ordinance, products containing sibutramine must be registered before they can be sold in Hong Kong. They are classified as prescription only medicine and can only be sold on a doctor's prescription and dispensed under the supervision of a pharmacist.

## Adverse effects of sibutramine

There are a number of adverse effects reported with the use of sibutramine including headache, dry mouth, constipation, insomnia, rhinitis and pharyngitis. Some serious adverse effects are reported as below.



### Cardiovascular risks

Recently, there had been review indicating an increased risk of heart attacks and strokes with sibutramine. Subsequently in January 2010, the manufacturer added a warning to the drug label stating that the use of sibutramine in patients with cardiovascular disease is contraindicated.



## Psychiatric effects

There have been reports of psychiatric symptoms associated with the use of sibutramine. These adverse effects of sibutramine, although rare, could be serious which include anxiety, depression, nervousness, mania, mood swings, panic attacks, psychosis and suicidal ideation.



From January 2007 to March 2010, among the established poisoning cases related to slimming products, 18 patients presented with psychotic symptoms which included behavioural and emotional disturbances, visual and auditory hallucinations. One patient presented with marked fluctuation in mood, irrelevant speech, paranoid ideation and having suicidal thoughts and self-harm behaviour after consuming a slimming product.

## More pharmaceutical agents detected

In addition to sibutramine, other pharmaceutical agents / drug analogues have been detected in the slimming products in the reported poisoning cases. They included:

1. Phenolphthalein, which had been banned from the market as a laxative due to the concerns of its tendency to cause cancer.
2. Fenfluramine, which had been withdrawn from the market as an anti-obesity drug after reports of valvular diseases, and pulmonary hypertension.
3. Thyroid hormones or animal thyroid tissues were found in some slimming products which carries a risk of hyperthyroidism and related cardiovascular complications.
4. Diuretic such as spironolactone, used primarily to treat heart failure, was detected in one of the slimming products. The presence of diuretics could induce electrolyte imbalance; raised serum potassium level which could lead to potentially fatal abnormal heart rhythms.







5. Analogues of anti-obesity drugs were also detected which may exhibit pharmacological properties similar to the original parent compound. No formal animal or human studies have been performed on these drug analogues to support their uses.

Therefore, taking slimming products adulterated with these pharmaceutical agents / drug analogues could be very dangerous and associated with unpredictable risks.

## Weight management in the right way

The aim of treatment for obesity is to lose weight in order to improve general quality of life, both physically and psychologically. A reasonable goal might be to begin making lifestyle changes by increasing physical activity and limiting the intake of calories. The most suitable type of diet and exercise will vary from person to person. It is advisable to consult a doctor before making any significant changes to your lifestyle.



In fact, there is no 'magic bullet' for losing weight. It is recommended to lose body weight at the rate of 0.5 – 1 kg a week with a goal of about 10% body weight reduction achieved over 6 months. Reducing weight more quickly than this can increase the physiological strain following acute energy deficit and the risk of weight regain. Any sound weight management plan should incorporate good nutrition, healthy eating behaviours and regular physical activity.





## Advice on the weight management

Public are advised to:

1. Set a reasonable weight reduction plan which should include a combination of diet, exercise and behavior modification.
2. Consult a doctor before using any slimming product for weight reduction.
3. Do not use any slimming products from dubious sources or those containing unknown ingredients as they could cause serious health consequences.

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