



衛生署

Department of Health



# Prevention of Accidental Poisoning in Children at Home

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## Introduction

Accidental exposure to poisons in children is not uncommon. Children like exploring new things and confronting new frontiers. However, they cannot differentiate what is good or harmful to them. Very often, they will unknowingly put object into their mouth for tasting or touch things which may be harmful to them. Toddlers are at high risk of poisoning.



Items non-toxic to adults may be very harmful to children, even in small amounts. For example, tablets for treating high blood pressure or diabetes in adults can seriously harm a child.

Another common agent involved in accidental poisoning among children is household products such as cleansing solutions used in the kitchen, bathroom or toilet. If bottles containing these products are left in an unlocked cupboard or a place within easy reach of children, they may swallow the colourful liquid inside which looks pleasing to them. Children may also accidentally ingest cleaning products stored for convenience in beverage bottles.

Many of the accidental exposures to poisonous substances are, in fact, preventable by taking simple measures. In the following pages, we would illustrate the problems with some examples, followed by some tips on how to prevent accidental exposures to poisons in children at home. We hope, after reading this bulletin, members of the public can raise their awareness towards these dangers and will adopt ways to prevent such accidents from occurring.



衛生防護中心  
Centre for Health Protection



## Facts and Statistics

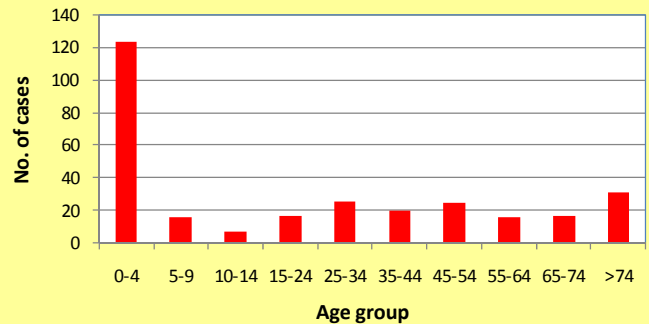
During the year 2006 and 2007, there were a total of 429 accidental poison exposure cases recorded by the Accident & Emergency Departments (AED) of six acute regional hospitals (QMH, PYNEH, UCH, PWH, PMH & TMH), in which 298 cases (70%) occurred at home. Of these 298 poison exposures, 139 cases involved children aged below 10 years (47%) (Figure 1) including the toddlers (children who begin to walk and up to the age of 3 years) who accounted for 114 cases (Figure 2). As such, toddlers are of special concern in accidental exposures to poisons.

Among these exposures in children below ten, western medicines (62%) and household products (22%) were the main poisoning agents. Breakdown on the types of poison groups are shown in Figure 3. The pattern is similar to those of other developed areas including the US.

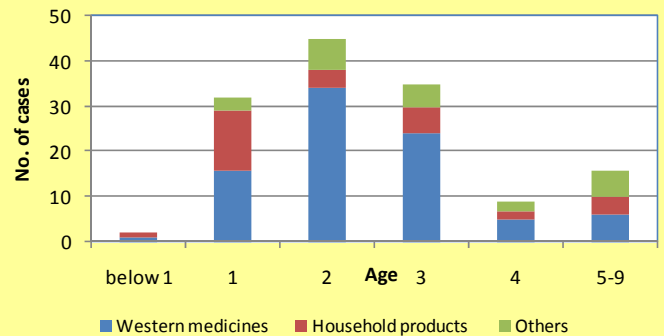
The three most common western medicines involved were cold & flu medicines (17%), followed by pain killers (13%) and blood pressure lowering medicines (13%), as shown in Figure 4.

The second most common agents involved in these cases were household products such as home cleaning products / disinfectants, personal care products (like cosmetics and beauty products), and pesticides, as shown in Figure 5. Small items like button batteries which can be poisonous may be easily swallowed by children as illustrated in one of the following cases.

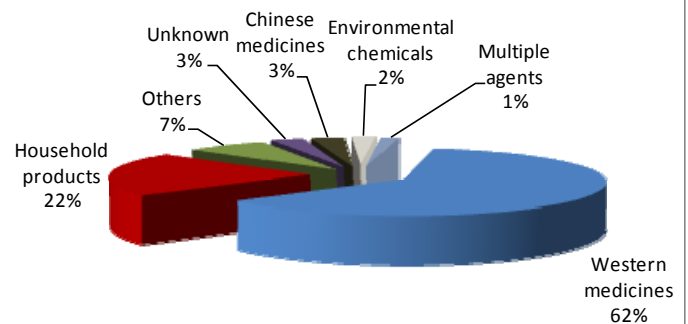
**Figure 1: Age Distribution of Patients Accidentally Exposed to Poisons at Home (Jan 2006 - Dec 2007)**



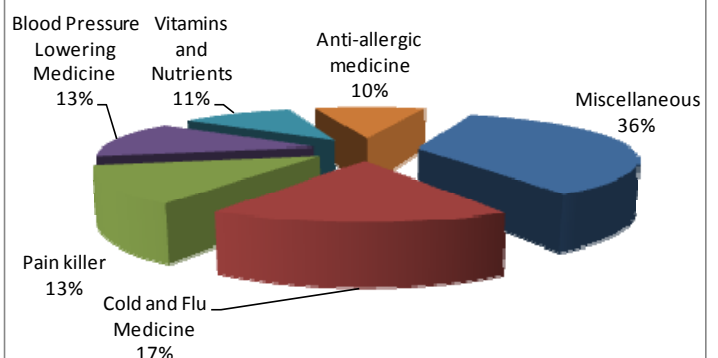
**Figure 2: Exposures to Main Poison Groups in Children by Age (Jan 2006 - Dec 2007)**



**Figure 3: Main Poison Groups Involved in Accidental Poison Exposures among Children (Jan 2006 - Dec 2007)**

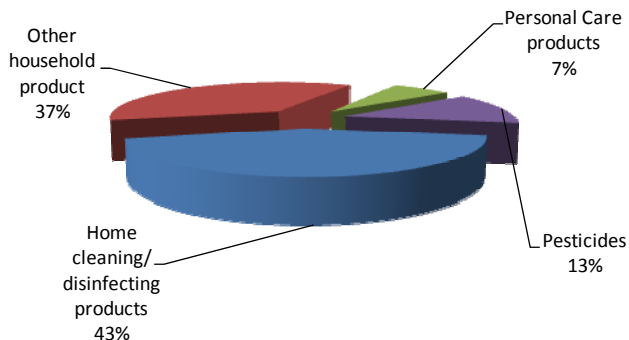


**Figure 4: Types of Western Medicines Involved in Accidental Poison Exposures among Children (Jan 2006 - Dec 2007)**





**Figure 5: Distribution of Household Products for Accidental Poison Exposures in Children (Jan 2006 - Dec 2007)**



Investigations into these cases revealed that circumstances when these accidents happened include:

- keeping medicines in unlocked drawer, in purse and handbag left unattended;
- storing cleansing agents in unlabelled or beverage bottles;
- placement of items such as cockroach bait, desiccant or washing powder in locations that are within easy reach of children.

Among all 139 exposure cases, one-third (32%) required hospitalization, in which 3 patients were admitted to ICU. Another 39% was discharged after observation at AED. Patients of the remaining one-third (29%) were discharged directly after seeking medical attention at AED. There was no complication or death.



## News 1: Erectile Dysfunction Products Poisoning

## News Corner

As of the end of June, over 60 male patients have been admitted to public hospitals for low blood sugar levels. These patients presented with dizziness, confusion or unconsciousness. Some of them admitted they had consumed various products from unknown or unclear sources which claimed to treat impotence. These products were found to have been tainted with an anti-diabetic drug in such an amount that had reduced the blood glucose of the victims to life-threatening levels. Two patients have died so far. Members of the public are thus strongly advised not to consume similar products from unknown or unclear sources which claimed to treat impotence or improving sexual performance.

## News 2: Aconitine Poisoning

Recently, an elderly man was admitted into the Intensive Care Unit of a hospital with such symptoms as numbness over tongue and mouth, as well as difficulty in breathing two hours after consuming a Chinese herbal medicine prepared according to a formulation listed in a book. Aconitine poisoning was suspected. Fortunately, he made a full recovery. This highlighted a few pertinent points that the public should pay attention to:

- Individual herbal formulation and the preparation methods may not be suitable for every individual
- Interaction between herbal components of a prescription can lead to serious consequences
- If in doubt, members of the public are advised to consult and seek advice from Chinese medicine practitioners



## Accidental Poisoning by Western Medicine

Western medicines are the most common agents of accidental poisoning in children. Some medicines are especially dangerous such as those used for treating hypertension, diabetes, and depression since a small dose of these medicines can cause severe adverse reactions in children. Other common western medicines associated with accidental poisoning in children at home are cold and flu medicines and pain killers.

### Case History



*A grandmother left 2 tablets of calcium-channel blocker, a very common blood pressure lowering medicine, on a table to get a glass of water. The pills were found missing when she returned. She noticed that her 20-month-old grandson was playing at the table around that time.*

*Twenty minutes later, her grandson developed flushing of face and trunk. He was immediately brought to the Accident and Emergency Department of a public hospital. The child was found to have a rapid pulse and the blood pressure on the low side on presentation. He was otherwise well.*

*Treatment with an adsorbing agent was given to remove any remaining poisons in the stomach. He was then closely monitored in the observation ward. The patient's pulse rate and blood pressure returned to normal and the flush subsided after a few hours of observation. He was discharged the next day.*



### Advice on Prevention of Western Medicine Poisoning:

#### *Dos*

- Read the labels and instructions carefully children in a well-lit place before giving medicines to your children
- Always measure doses accurately – do not guess
- Discard expired medicines properly
- Keep medicines including dietary supplements, in locked cabinets which are out of sight and out of reach of small children and return to safe storage immediately after use

#### *Don'ts*

- **Do NOT give other people's medicines or those left from a previous consultation to your children**
- **Do NOT mix different tablets in the same container**
- **Do NOT store medicine in food bottles or refer to medicine as candies**
- **Do NOT store medicines in the fridge or cupboard where children expect to find food**





## Potential Household Product Poisoning

Any household product including small items can be a potential risk to young children who like exploring their surroundings. Drain opener, pesticides, dish washing liquid and similar products can cause serious harm even if a small amount is ingested.

### Case History



*A 6-year-old girl told her mother several hours after swallowing a button battery. She was immediately taken to a hospital. She had no symptoms at the time.*

*X-ray examination confirmed that the battery remained in the stomach. Endoscopy was later performed and the battery was successfully removed from the child's stomach. The battery remained intact and the child was discharged well.*

Batteries contain powerful alkaline corrosives that can cause severe burns if they leak inside the body. Different batteries contain different ingredients. Among the most common are lithium, manganese dioxide, silver oxide, and zinc. Of these, lithium and manganese dioxide usually cause the most severe burns. In general, large batteries are more likely to cause symptoms than small ones. The electrical current passing through the moist tissue of the body can cause significant injury even though the batteries do not leak.



### Advice on Prevention of Household Product Poisoning:

#### *Dos*

- Store all household cleaners, personal care products and other small objects that can easily be swallowed by a child in a locked cabinet or high shelf
- Handle the household products carefully when you are using them. Your children may ingest them when you are focusing on your work. Store them safely once you have finished using them
- Identify potentially toxic items at home and make sure they are clearly labeled
- Teach your children not to put things into their mouth indiscriminately

#### *Don'ts*

- Do NOT put household products in containers which are originally used to store food and drinks
- Do NOT apply the cleansing products in excess of the recommended amount. The residual products may be poisonous to your children
- Do NOT apply various cleansing products at the same time as chemical reactions may produce toxic substances
- Do NOT apply pesticides directly onto household utensils or surface used for food preparation



## Key Messages for YOU



**I**n case of suspected poisoning or poison exposure:

- Keep calm
- Seek medical advice immediately. Do not wait for symptoms to appear!
- Call 999 emergency hotline or go to hospital immediately if the condition is serious

Young children like exploring new things in their surroundings. They may be exposed to poisons at home or elsewhere. We must take responsibility for making our home safe for children. Remain vigilant when you are out or on holidays with your children. The best protection is to make sure that a child has **NO ACCESS** to poisons.



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