

# Home safety



The Royal Children's Hospital Safety Centre, Melbourne 2008

Pre-schoolers are often injured at home. This is because they may spend the greater part of their day at home, are curious, adventurous and do not fully understand the consequences of their actions.

Very few houses are purpose-built for children; they have features and objects that pose risks for them. There are many simple ways to reduce this risk, for example by:

- removing potentially dangerous items
- adding safety products
- moving objects, such as furniture, and changing the layout of a room
- changing the way you go about your daily routine.

## Prevention is best

The choices you make will depend upon your individual situation and the age of your child or children. Most importantly, take steps now to provide a safe play space. Make sure you also maintain a constant vigil over your adventurous, inexperienced child. In many situations adult supervision will reduce the risk of injury.

If parents or carers incorporated safety features at the design, construction or renovation stage when building a new home or renovating a home the potential for injury reduction would be high and long lasting. By modifying the environment, injury risk can be reduced without relying on human behaviour, at a stage which may be most cost effective.

Common scenarios leading to injury:

- collisions because of poorly designed kitchens
- injuries to children in play areas because of poor visual contact between work areas (kitchen, laundry) and play areas (yard, family room)
- collisions and impacts because of poorly positioned doorway openings
- falls due to poor lighting, floor surface, tripping hazards, visitors or other distractions
- lack of supervision of children during phone calls.

## Rates of home injury

The frequency of hospital-treated home injury is relative to the age of the child, i.e. the younger the child, the higher the frequency of injury. Children aged 0–4 years account for 54% of hospital-treated home injuries, compared to 27% for 5–9 year olds and 20% for 10–14 year olds.

## Main causes of injury

Common causes of injuries to young children in the home include poisoning, burns, finger jams, dog bites, falls and near drowning.

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## Suggested ways to increase safety inside the home

### Kitchen

The majority of child injuries associated with the kitchen are in the 0–4 age group. Injuries include poisoning, falls or from hot beverages or hot water. Try to keep children out of the kitchen when you are cooking. Place a safety gate (a half door), in the doorway. Some parents may choose to use a playpen at this busy time.

Poisoning is the fourth highest cause of child hospitalisation in Victoria. All household cleaning and other poisonous products should be kept out of reach and out of sight of young children. Lock poisons away including the cleaning products under the kitchen sink.

Consider installing an oven guard, or a stove guard that fits around the hot plates.

Use tablemats rather than a tablecloth on the table to stop young children from reaching up and pulling down items.

The dishwasher, fridge door, drawers and cupboards should be fitted with child resistant locks or latches (there are different types for different uses).

Include a fire blanket, extinguisher and a smoke detector near the entry to the kitchen.

Tie knots in plastic bags and store out of reach of children to avoid suffocation.

Safety taps or tap covers may be necessary if the tap water is too hot.

### Bathroom

In proportion to the amount of time in use, the bathroom is the most dangerous room in the home for children. Under 5 year olds were involved in 70% of bathroom child injuries. Almost two thirds of admitted cases related to either scalds or near drowning. Fall injury is also common in the bathroom due to the combination of water and potentially slippery surfaces.

The skin of infants and young children burns more deeply and more quickly and at lower temperatures than that of most adults. (Wilson, 1991). In addition, the relative surface area affected in a child is much greater than for an adult for a similar exposure. At 60°C it takes one second for hot water to cause a full thickness burn in a child, which will need surgery and skin grafting. At 50°C it takes 5 minutes for hot water to cause a full thickness burn (Moritz, Henriques, 1947) Other than children, high-risk groups for tap water scalds are older people, who also have sensitive skin, and people with disabilities.

All new hot water installations must deliver hot water not exceeding 50°C in residential buildings at the outlets in all bathrooms and ensuites

#### Options to reduce the risk of scalds include:

- turning down the thermostat on hot water services (gas)
- installing a tempering valve to the bathroom pipes (recommended for electric hot water services)
- installing a mixing valve
- installing anti-scald devices in taps, child resistant taps, tap covers or single lever mixing taps, which prevent hot water being turned on to the full.

#### Other ways to improve bathroom safety include:

- Keep the door shut or place a safety gate (a half door) in the doorway.
- Install a poisons cabinet and fit child resistant locks to cupboards and drawers.
- Use anti-slip mats on the floor, bath and shower. Contact a flooring company who specialises in anti-slip materials.
- Protect electrical outlets with power point covers.
- Lock away hair dryers and electrical shavers.
- Do not use a floor heater.
- Always check the temperature of the water before placing your baby or child in the bath; use your elbow or a thermometer (a comfortable temperature for a baby is between 37–39°C).
- Ensure hot water taps are turned off tightly, particularly before putting children in the bath.

#### Always remain within arms reach of your baby or child in the bath.

### Laundry

Keep the door closed or use a safety gate (half door) in the doorway.

Choose a nappy bucket with a firm fitting lid and keep it off the floor to avoid drowning; for example, place it in the laundry trough or on top of the washing machine.

Fit cupboards with child resistant locks for safe storage of washing powder and cleaners.

### Living/family room and bedroom

Provide a safe play space in the living area.

Store toys in a box. A toy box should have ventilation holes to avoid suffocation and a slow closing latch to prevent finger jams.

Install smoke alarms and use guards for heaters and fire places.

Install finger jam protectors and door-stoppers to prevent serious finger injuries on either end of the door.

Remove furniture that has sharp edges, e.g. coffee table; attach corner cushions to sharp corners and move the table to the side of the room, away from traffic paths.

As well as taking action to reduce the chances of your child being injured it is essential to learn first aid, specifically those skills for dealing with babies and children. Basic first aid skills can make a difference in reducing the seriousness of an injury.

*Statistics are based on those provided by the Victorian Injury Surveillance Unit, Monash University. Figures have been rounded off for ease of reading.*

#### For further information:

For further safety features throughout the home please refer to The Royal Children's Hospital Safety Centre *Home Safety Checklist*.