Burns and scalds - children
Summary

- Keep hot drinks and pot handles out of reach.
- Never leave children alone in the bathroom or kitchen.
- If a child is burned, apply immediate first aid. Dial triple zero (000) for an ambulance if the injury is severe.
- Do not use butter, oils or ice to treat burns.
- The best way to prevent scalds in the bathroom is to reduce the temperature of the hot tap water at the basin, bath and shower to 50ºC. By law, all new hot water systems now have this setting.
- The maximum bathing temperature recommended for young children is 37 to 38 ºC.

Children are curious and like to explore their surroundings. They don’t know that hot water and hot drinks can cause burns. A child’s sensitive skin burns far more easily than adult skin. Burns and scalds are a major cause of serious injury in children from newborn to 14 years old. Children under four years, especially those aged between one and two years are most at risk due to their increased mobility and natural curiosity.

A severe scald can inflict a serious injury and may mean a long stay in hospital. It may also require painful skin grafts and years of treatment, and can result in permanent scarring. A severe scald over a large skin area can cause death.

Causes of scalds

Scalds are burns from hot liquids or steam. Any hot substances can scald a child. Treat all hot things as if they are as dangerous as fire. In fact, everyday items used in and around the house cause the most scald injuries.

These include:

- hot drinks such as cups of tea and coffee
- water from saucepans, kettles, jugs, billies, urns and thermoses
- hot food solids and saucepans of hot liquid
- coal ashes
- friction burns – for example, treadmills
- running hot – water from taps, showers and bath water
- lighters and matches
- fat and hot cooking oil
- steam and vapour.

Times when injuries are likely to happen

Children are most at risk when you are:

- in a hurry, under a lot of pressure, busy or have too many things going on at the same time
- entertaining
- not feeling well
- distracted
- tired, or when your child is tired
- away from home, visiting friends or family, or on holiday and out of routine.

A change of routine can help

Perhaps this is the time to skip unnecessary jobs or to change your routine. Suggestions include:

- Avoid the high demands of families between 4 pm and 7 pm by feeding a hungry toddler their main meal at midday and serving something light that you don’t need to cook in the early evening.
- Arrange for the rest of the family to eat a later meal, once your toddler is safely in bed.
- Prepare the evening meal earlier in the day when you are less likely to be distracted by competing family demands.
- Occasionally, give your baby a wipe instead of a bath if you don’t have the time to stay beside them. Alternatively, bath your baby earlier in the day.

Bathroom safety

The bathroom is one of the most hazardous rooms in the house for a baby or child. Scalds and burns can occur here, as well as falls and drowning. Most hot tap water scalds occur in the bathroom.
There are a number of ways to protect your child against serious injury in the bathroom. Some suggestions include:

- Use a bath thermometer to make sure the bath’s water is always a safe and comfortable temperature. The recommended maximum water temperature for bathing young children is between 37 ºC and 38 ºC.
- A soft bath spout cover and non-slip suction mini bath mats can help prevent falls in the bath.
- Keep the bathroom door closed when not in use. You may wish to put a lock or restraint on the outside of the bathroom door (out of reach of children, but accessible to adults in case of emergency).
- Always remain within arm’s reach of children in the bath.

Take the child with you if you have to answer the door or telephone.

**When hot water is too hot**

The average temperature of domestic hot water is 70 ºC. A much safer temperature for domestic hot water is 50 ºC. This is because water at a lower temperature takes longer to cause injury. For example:

- At 60 ºC, it takes one second for hot water to cause third-degree burns.
- At 55 ºC, it takes 10 seconds for hot water to cause third-degree burns.
- At 50 ºC, it takes five minutes for hot water to cause third-degree burns.

**Turn your hot water down**

To reduce the risk of injury to your child from hot water scalds, install a recommended device to control bathroom hot water to a maximum of 50 ºC. Options include:

- **Tempering valves** – these are fitted to the water pipeline and mix hot and cold water to a specific temperature, adjustable between 35 ºC and 50 ºC.
- **Hot water shutdown devices** – these are fitted to the end of a tap and automatically cut off water flow once the water reaches the pre-set temperature.

By law, all new hot water systems are now required to comply with the Victorian plumbing regulations, which limit hot tap water to no more than 50 ºC in bathrooms at the basin, bath and shower in new houses and new renovations. The only exceptions to this are premises intended for children and the elderly, such as early childhood centres, schools and nursing homes. These have a temperature limit of 45 ºC.

Remember that the maximum bathing temperature recommended for young children is between 37 ºC and 38 ºC, so cold water still needs to be mixed with water from the hot tap.

**Kitchen safety**

Some simple steps you can take to prevent scalds in the kitchen include:

- Never leave cooking unattended.
- Always supervise your children in the kitchen.
- Keep hot drinks and handles out of reach.
- Put a baby down when drinking something hot.
- Use non-slip place mats instead of tablecloths.
- Turn handles of saucepans in towards the back of the stove, out of reach of small children.
- Keep hot drinks away from the edge of the table or bench. Make sure your care extends outside your home, when visiting relatives and friends or attending playgroups.
- Use a cordless kettle to prevent a child pulling over the kettle, or make sure cords are well away from the edge. Empty any unused water out of the kettle after boiling.
- Use the back hotplates on the stove before using the front ones.
- Give toddlers their own special mug so they don’t drink from an adult mug or cup, which may contain liquid that is too hot.
- Carry plates to pots, not pots to plates.
- It is safer to serve cold drinks when children are present and to have a tea break when toddlers are sleeping.
- Your toddler may be safer in the playpen or in the highchair for a short time when you are very busy in the kitchen, or you could use a child safety gate.

**First aid advice for burns**

Stop the burning process, while considering your own safety by:

- **If on fire** – stop-drop-cover and roll.
- **If electrical** – turn off current.
- **If chemical** – remove the burning agent and irrigate with water.

Immediate first aid will reduce the severity of a burn. If someone has received a burn, you should:

- Apply cool running water (not ice or iced water) to the burn for at least 20 to 30 minutes (useful for up to three hours after the burn).
- Carefully remove wet clothing only if the skin is not blistered or stuck to the clothing.
- Remove all jewellery and watches. Burns cause swelling and it may hinder circulation.
- Cover the burn using a clean dressing, a clean sheet, non-fluffy towel/tea towel or cling film.
- If the burn is severe or spread over a large area, keep the child warm and calm, and dial triple zero (000) to call an ambulance.
- Burns that involve the face, hands, feet, genitals or bottom, or if the burn area is larger than a twenty-cent piece, should be seen by a doctor as soon as possible.

**What not to do for burns and scalds**

betterhealth.vic.gov.au
If a child is burned, there are a few things you should not do, including:

- Never use butter, oils or ointments to cover the burn, as they may retain the heat.
- Never use ice. Children can be dangerously chilled in ice water.

**Home safety and first aid advice**

The Royal Children’s Hospital Community Information team (formerly Safety Centre) in Melbourne holds first aid courses for the public. The six-hour paediatric emergency care course is particularly helpful for parents, grandparents, nannies and childcare providers. You can also contact the Community Information telephone line on (03) 9345 5085 for advice plans and safety products to reduce the risk of burn injuries in your home.

**Where to get help**

- The Community Information (formerly Safety Centre) telephone line, The Royal Children’s Hospital Tel. (03) 9345 5085
- Kids Health Info Bookshop, The Royal Children’s Hospital Tel. (03) 9345 6429 to buy safety products
- Hardware and bathroom suppliers
- A qualified plumber or gasfitter

**Things to remember**

- Keep hot drinks and pot handles out of reach.
- Never leave children alone in the bathroom or kitchen.
- If a child is burned, apply immediate first aid. Dial triple zero (000) for an ambulance if the injury is severe.
- Do not use butter, oils or ice to treat burns.
- The best way to prevent scalds in the bathroom is to reduce the temperature of the hot tap water at the basin, bath and shower to 50°C. By law, all new hot water systems now have this setting.
- The maximum bathing temperature recommended for young children is 37 to 38°C.

**References**


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Please note that we cannot answer personal medical queries. If you are looking for health or medical advice we recommend that you:

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More information

Skin

The following content is displayed as Tabs. Once you have activated a link navigate to the end of the list to view its associated content. The activated link is defined as Active Tab

- Skin basics
- Skin cancer
- Skin health
- Skin conditions
- Skin irritations
- Burns, sores and infections
- Skin changes

Skin basics

- Birthmarks
  In most cases, we do not know what causes birthmarks. Most are harmless, happen by chance and are not caused by anything the mother did wrong in pregnancy...
- Blushing and flushing
  Severe blushing can make it difficult for the person to feel comfortable in social or professional situations...
- Skin explained
  The skin is a good indicator of health - if someone is sick, it often shows in their skin...
- Sweat
  Sweat's main function is to control body temperature...
- Wounds - how to care for them
  Chronic wounds are more likely to heal if they are treated with moist rather than dry dressings...
- Wrinkles
  Sun exposure, smoking and ageing are the main causes of wrinkles...
Skin cancer

- Melanoma
  If untreated, melanomas can spread to other parts of the body and may be fatal...
- Skin cancer
  Check all of your skin, not just sun-exposed areas. If you notice anything unusual, including any change in shape, colour or size of a spot, or the development of a spot, visit your doctor as soon as...
- Skin cancer - children
  Encourage your child to be SunSmart ? whatever their age...
- Skin cancer - protecting outdoor workers
  People who work outdoors are in one of the highest risk groups for skin cancer...
- Skin cancer - risk factors
  The major cause of skin cancer is over exposure to ultraviolet radiation from the sun or other sources, such as solariums...
- Skin cancer - tanning
  A suntan is a sign of skin damage ? there is no such thing as a 'safe' tan...

Skin health

- Healthy ageing - the skin
  Many age-related skin changes can be reduced with healthy lifestyle choices and good skin care...
- Stretch marks
  Over time, stretch marks lose their bright colouring and become silvery, shimmering lines...
- Sunburn
  Even mild sunburn can cause permanent skin damage and may increase your risk of skin cancer...
- Sun protection in the snow
  Winter activities such as snow skiing or snowboarding pose a high risk of sunburn...

Skin conditions

- Acne
  Acne is common and can make people of all ages feel embarrassed, but treatments can help if acne is causing distress...
- Bowen's disease
  Bowen's disease produces persistent red scaly patches on the skin that are neither sore nor itchy...
- Eczema (atopic dermatitis)
  Eczema can vary in severity, and symptoms may flare up or subside from day to day...
- Erythema nodosum
  Erythema nodosum appears as red tender lumps, most commonly on the shins...
- Leprosy (Hansen’s disease)
  Once a person with leprosy begins treatment they quickly become non-infectious...
- McCune-Albright syndrome
  The severity of symptoms or how a child with McCune-Albright syndrome will be affected throughout life is difficult to predict...
- Psoriasis
  There is no cure for psoriasis, but it can be well controlled with treatment...
- Raynaud's phenomenon
  Raynaud's phenomenon can be a sign of a more serious underlying condition, so see your doctor if you experience it...
- Rosacea
In men, severe rosacea can cause the nose to become reddened and enlarged (rhinophyma).

- **Scleroderma**
  The most common symptom of scleroderma is a thickening and hardening of the skin, particularly of the hands and face.

- **Tinea**
  Tinea is contagious and can be spread by skin-to-skin contact or indirectly through towels, clothes or floors.

**Skin irritations**

- **Bedbugs**
  Bedbugs have highly developed mouth parts that can pierce skin.

- **Bites and stings – first aid**
  If you are bitten or stung by an insect or animal, apply first aid and seek medical treatment as soon as possible.

- **Cradle cap**
  Cradle cap is not contagious and it is not caused by poor hygiene or bad parenting.

- **Dandruff and itching scalp**
  Itching scalp can be caused by a number of conditions, including dandruff, seborrhoeic dermatitis and psoriasis.

- **Fleas**
  Fleas are parasites that feed off the blood of humans and animals, and can spread infection.

- **Hives**
  Hives (urticaria) is a reaction to the release of histamine into the skin.

- **Nappy rash**
  Most babies get nappy rash at some stage, no matter how well they are cared for.

- **Scabies**
  If you have scabies, your sexual partners and all members of your household will also need to be treated.

**Burns, sores and infections**

- **Bites and stings – first aid**
  If you are bitten or stung by an insect or animal, apply first aid and seek medical treatment as soon as possible.

- **Blisters**
  A blister is one of the body's responses to injury or friction.

- **Boils**
  Some areas of the body are more susceptible to boils, including the face, throat, armpits, groin and buttocks.

- **Burns and scalds**
  Immediate first aid for all burns is to hold the burn under cool running water for at least 20 minutes.

- **Burns and scalds - children**
  Most hot tap water scald injuries to children happen in the bathroom.

- **Buruli ulcer**
  Since the ulcer gets bigger with time, early diagnosis and prompt treatment of Bairnsdale disease can keep skin loss to a minimum.

- **Cellulitis**
  Cellulitis is a bacterial infection of the skin that occurs most commonly on the lower legs and in areas where the skin is damaged or inflamed.

- **Chilblains**
  The symptoms of chilblains are made worse with sudden temperature changes.

- **Cold sores**
  Cold sores are blisters around the mouth and nose, caused by the herpes simplex virus.
• **Cysts**
  Cysts may be as small as a blister or large enough to hold litres of fluid.

• **Frostbite**
  Exhaustion, hunger and dehydration further lower the body's defences against frostbite.

• **Impetigo - school sores**
  Impetigo, or school sores, is a highly contagious skin infection that commonly affects school-aged children.

• **Leg ulcers**
  Age, varicose veins, smoking and arterial disease increase the risk of leg ulcers.

• **Molluscum contagiosum**
  Molluscum contagiosum can be mistaken for genital warts or pimples, check with your doctor for an accurate diagnosis.

• **Pityriasis rosea**
  Generally, pityriasis rosea is a one-off event - once it has gone, the rash doesn't reappear.

• **Pressure sores**
  Pressure sores can be difficult to treat and may lead to serious complications.

• **Shingles**
  Shingles is caused by the same virus responsible for chickenpox.

• **Skin cuts and abrasions**
  The body begins repairing a wound immediately and the process may continue for days, weeks, months or even years.

• **Tinea**
  Tinea is contagious and can be spread by skin-to-skin contact or indirectly through towels, clothes or floors.

• **Warts**
  Warts can be stubborn, so you may need to use more than one type of treatment.

**Skin changes**

• **Cosmetic surgery**
  Cosmetic surgery carries risks and, in some cases, the results are not what you may anticipate.

• **Home tattooing**
  Home tattooing, or getting tattoos overseas, puts you at risk of serious complications that can be debilitating and life-long.

• **Piercings**
  If you want to have your body pierced, choose an experienced, registered practitioner to reduce the risks of infection and scarring.

• **Tattoos**
  If you want to get a tattoo, choose an experienced, registered practitioner to reduce the risks of infection and scarring.

**Related Information**

• **No Jab No Play**
  No Jab No Play – from 1 January 2016, all parents/guardians seeking to enrol their child at an early childhood service in Victoria must provide evidence that the child is fully immunised for their age.

• **A Healthy Start to School**
  A Healthy Start to School – a guide for parents of children in their foundation year of school.

• **Asthma explained**
  Asthma cannot be cured, but with good management people with asthma can lead normal, active lives.

• **Animals and child safety**
  A Healthy Start to School – a guide for parents of children in their foundation year of school.
Children should always be closely supervised near animals and taught how to behave safely around pets.

Related information on other websites

- Child and Youth Health SA - First aid - burns
- The Child Health & Safety Resource Centre (CHAS) Melbourne - Parenting Books and Home Safety Products
- The Royal Children's Hospital, Safety Centre, Melbourne - Fire Safety
- The Royal Children’s Hospital, Safety Centre, Melbourne - First Aid Training

Support Groups

- CPA - Early Fire Safe

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