

CHILDHOOD BURNS



The situation in South Africa

- More than 1 300 young children die each year as a result of burn injuries.
- Many more are seriously injured, at least 6 per 10 000 children are seriously burned in Cape Town each year.
- These injuries predominantly affect 1–2-year old children in low-income settings.

Risk groups

Injuries tend to occur according to the following patterns:

- **Infant scalding:** These injuries form a third of all serious burn injury cases. They are typically sustained by boys in the home and are due to scalding to the upper abdomen – the likely consequence of hot tea, coffee, soups, foods, or hot water prepared for bathing or cleaning.
- **Toddler scalding:** This group makes up a quarter of all cases. Female toddlers are especially vulnerable – they receive burns to their lower abdomen and legs typically during evening hours. This is likely due to easy access to cooking pots, kettles or heating equipment often found on the floors or on makeshift tables in low-income homes.
- **Older children with flame burns:** This is about 20% of all serious burn injury cases, the majority of which occur at night or in the early morning. It is mostly pre-school and school-aged children who sustain flame burns, which can be explained by their rapidly increasing physical mobility and social independence. This exposes them to high-risk activities such as cooking and the lighting of fires. There is a high proportion of females in this group.
- **Other causes:** These injuries are the result of various causes such as contact with hot objects, electrification and, to a lesser extent, flames. A large proportion of these occur outdoors and injure the head and neck region. There are more male than female children in this group, which consists mainly of older toddlers and children of school-going age.

The home and neighbourhood

In general, the poorer the household and neighbourhood, the greater the risk of childhood burn injuries. The following characteristics of such households and neighbourhoods were found to increase the risk of burn injuries:

- Flammable building materials used in the construction of the home
- Poorly demarcated cooking or washing areas (due to too few rooms)
- The use of portable kerosene and gas stoves
- The use of hot water geysers with no or limited temperature control
- Overcrowding in the home and/or neighbourhood
- Female-headed households.

Prevention

A range of prevention interventions are needed to reduce injuries due to hot fluid burns in young children – an appropriate focal point for the burn injury prevention sector. These include:

- The development of mandatory specifications for high-risk products, including paraffin stoves and hot water geysers
- Affordable electrification
- Distribution of stove guards or barriers
- Support for low-income households, especially female-headed homes.



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A framework for action

The following preventive actions are recommended:

Injury group	Who is affected?	Injury agent(s)	High risk activities, products and behaviours	What can be done
Infant scalding	Infants; boys	Hot liquids and foods	Bathing and cooking; hot water geysers without temperature control; not keeping children away from hot liquids	Mandatory specifications for hot water geysers; parent support and training; home visitation; economic and home care support for female-headed households
Toddler scalding	Toddlers; girls	Hot liquids and foods	Bathing; cooking or cleaning; portable stoves and paraffin stoves	Mandatory specifications for hot water geysers; home visitation; stove guards; access to affordable electrification
Older children with flame burns	Pre-school and school-aged children; girls	Flames	Cooking and the lighting of fires	Stove guards; access to affordable electrification; home visitation; burn prevention school curricula
Other causes	Toddlers and school-going children; boys	Hot objects, electrification, and to a lesser extent flames	Outdoor play and experimentation	Burn prevention school curricula; barriers for electrical sub-stations; controlled dissemination and disposal of flame accelerants

Further Reading:

- Van Niekerk A, Rode H, Laflamme L (2004). Incidence and patterns of childhood burn injuries in the Western Cape, South Africa. *Burns*, 30(4): 341-347.
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- Van Niekerk A (2006). Childhood burns: Emerging evidence for prevention action and policy in South Africa. *African Journal of Safety Promotion*, 4(1): 112-121.

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