

# POSITION STATEMENT

## Sun protection and infants (0-12 months)



\* Endorsed by the Australasian College of Dermatologists

### Summary statement

Current evidence suggests that childhood sun exposure makes an important contribution to the lifetime risk of skin cancer.<sup>1</sup>

The mechanisms are unclear, but it may be that skin is particularly susceptible to the harmful effects of solar ultraviolet (UV) radiation during childhood. The possibility that sun exposure during childhood stimulates the initial mutational step in the development of melanoma is supported by epidemiological research.<sup>2</sup>

The cumulative nature of sun damage indicates that infants should be protected from exposure to UV radiation from the day they are born.<sup>3</sup>

### Recommendations

Cancer Council Australia recommends keeping infants out of the sun as much as possible.

When this is not possible, parents and carers should minimise exposure of infants to UV radiation by:

1. Planning the day's activities to minimise the infant's exposure to the sun, especially between 10am and 3pm.
2. Covering as much of the infant's skin as possible with loose fitting clothes and wraps made from closely woven fabrics.
3. Choosing a hat with a broad-brim or in a legionnaire style so the baby's face, neck and ears are protected.
4. Make use of available full shade and provide shade for the infant's pram, stroller or play area. The material used should cast a dark shadow. The infant will still need to be protected from scattered and reflected UV radiation.
5. Checking the infant's clothing, hat and shade positioning regularly to ensure he/she continues to be well protected from UV radiation.
6. Apply a SPF30+ broad spectrum water resistant sunscreen. Broad spectrum water resistant sunscreen (SPF 30+) may be applied to any small areas of skin that cannot be protected by clothing (such as face, ears, backs of hands). Sunscreen will need to be applied 20 minutes before going outside and reapplied every couple of hours or more often if it has been wiped or washed off.

### Sunscreen use and infants

There is no evidence that using sunscreen on infants is harmful.<sup>4</sup> Although premature infants may have increased skin permeability consistent with incomplete development of the skin, the structure of the stratum corneum (the skin layer principally determining permeability) in full term infants is indistinguishable from that of adults providing an effective barrier.<sup>5,6</sup>

If infants are kept out of the sun or well protected from UV radiation by clothing, hats and shade, then sunscreen need only be used occasionally on very small areas of an infant's skin.

Some infants may develop minor skin irritation in response to sunscreen use. True allergic contact dermatitis to the active chemicals in sunscreen is very rare but may result from reactions to preservatives or perfumes in the product.

Sunscreen milks or creams formulated for sensitive skin usually contain titanium dioxide or zinc oxide and are less likely to contain alcohol or fragrances that might irritate the skin. As with all products, use of any sunscreen should cease immediately if any unusual reaction is observed.

## Vitamin D

Australia's high ultraviolet radiation levels mean that even when babies are outdoors for very short periods before 10 am and after 4 pm with small amounts of skin exposed, they are likely to receive enough ultraviolet radiation exposure to maintain healthy vitamin D levels even with the use of sun protection.

## Nappy rash

Nappy rash includes a number of inflammatory skin conditions of the groin and buttock area that are direct or indirect result of wearing nappies. Nappy rash is extremely common and generally results from a combination of factors that begin with prolonged exposure to moisture from urine and faeces. Appropriate recommendations include frequent nappy changing, applying barrier creams to the affected areas and exposing the inflamed area to the open air as much as possible.<sup>7</sup> The practice of exposing a naked infant to direct or indirect sunlight puts them at high risk of sunburn and skin damage and therefore is not recommended.

## Jaundice

Neonatal jaundice generally only causes concerns in about 10% of infants.<sup>7</sup> Treatment for jaundice should be under medical supervision in a controlled environment. Exposing infants to direct sunlight is inappropriate to treat neonatal jaundice.

## References

1. Armstrong BK, Kricger A. Epidemiology of Sun Exposure and Skin Cancer. *Cancer Surveys* 1996;26: Skin Cancer.
2. Armstrong BK. Melanoma: Childhood or Lifelong Sun Exposure. In: Grob JJ, Stern RS, MacKie RM & Weinstock WA. (eds). *Epidemiology, Causes and Prevention of Skin Diseases*. Blackwell Science Carlton, Victoria 1997.
3. Hurwitz S. The Sun and Sunscreen Protection: Recommendations for Children *J Dermatol Surg Oncol*. 1988; 14(6):657-70.
4. Marks R. The Use of Sunscreens in the Prevention of Skin Cancer. *Cancer Forum* 1996; 20: 211-215.
5. Wester RC, Maibach H. Comparative Percutaneous Absorption. In: Maibach HI, Boisits EK (eds) *Neonatal Skin Structure and Function*. Marcel Dekker, New York 1982.
6. McCormack JJ, Boisits EK, Fisher LB. An In Vitro Comparison of the Permeability of Adult Versus Neonatal Skin. In: Maibach HI, Boisits EK (eds) *Neonatal Skin Structure and Function*. Marcel Dekker, New York 1982.
7. Harrison S, Buettner P, MacLennan R. Why do mothers still sun their infants? *J Paediatr. Child Health*. 1999; 35:296.

**Cancer Council Australia, GPO Box 4708, Sydney NSW 2001**  
**Ph: (02) 8063 4100 Fax: (02) 8063 4101 Website: [www.cancer.org.au](http://www.cancer.org.au)**