

## Nappy Rash

(also known as diaper rash, nappy dermatitis, diaper dermatitis or irritant diaper dermatitis)

Nappy rash is one of the most common skin conditions found in infants. The wearing of nappies causes an increase in skin wetness and alkalinity. If the wetness is prolonged, this can lead to softening and breaking down of skin which makes it more susceptible to friction from the surface of the nappy. It also increases the risk of further skin damage and other problems caused by exposure to irritants, especially faeces (poo) and urine (wee). Other factors which may aggravate or lead to worsening of the rash; include repetitive skin cleansing, inadequate skin care, teething, infections, antibiotics, diarrhoea and problems with the gut or urinary tract

### If my baby has eczema will they be more likely to develop nappy rash?

In infants the eczema usually develops on the face and scalp first, and the nappy area is often unaffected. All infants with eczema are slightly more prone to their skin being irritated by things like soap, urine in the nappy area, or saliva around the cheeks. Parents often find that nappies irritate their child's eczema, especially around the waist bands and top of legs. Any friction or pressure can cause sweating and irritation of the skin, so try a slightly different size, brand or type of nappy along with regular emollients to any problem areas. If your child has recently started using trainer pants or pull-up nappies then these may simply be a bit too tight.

### Preventing or clearing nappy rash

#### What type of nappy should I use?

There is no reliable evidence to suggest that one sort of nappy is better than another in preventing or clearing nappy rash. Nappy choice is therefore up to you and will depend not only on its absorbency but on convenience, cost, and environmental considerations. There is no single nappy that is better than others and it is very much a case of trial and error to find one that suits your child. Ensure the size of the nappy is appropriate as using nappies which are too tight can make the situation worse.

**Disposable nappies** have a gel-core of modern disposable nappies absorbs and retains fluid, keeping it away from the skin and preventing mixing with faeces.

**Washable cloth nappies** are an alternative to disposable nappies and there are many available. When washing these use fragrance-free detergents which don't contain enzymes or whitening and brightening

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ingredients. Don't use fabric softeners as these can irritate your baby's sensitive skin and don't overload the washing machine, as the nappies will not come out clean or be rinsed properly. Use an extra rinse cycle, too.

### How often should I change my child's nappy?

Ideally, change the nappy as soon as it is wet or soiled. The aim is to prevent the skin being in contact with urine and poo for long periods. This is especially important if your baby is teething and has offensive, runny poo. If your child has a rash in the nappy area, reduce the time between each nappy change. The frequency of each change will vary depending on the age of the child and should take place as soon after soiling as possible. The required frequency of nappy changes varies with the age of the child: new-borns may pass urine more than 20 times and a 1-year-old on average 6 times a day .

### How should I clean the nappy area?

It is recommended that the nappy area is cleansed with warm water and/or a water-soluble emollient, or preservative MI (methylisothiazolinone) free, fragrance-free and alcohol-free baby wipes after soiling. Do not use soap or bubble bath. Soap products can lead to drying of the skin and may affect the skin pH, making it more prone to damage from faeces. After washing, make sure the baby's bottom is properly dry before putting on a new nappy. Dry by patting, not by rubbing, with a towel. Do not use powder such as talcum powder which may irritate the skin. Various moisture-absorbing powders, such as talcum or starch, reduce moisture but may introduce other complications. Airborne powders of any sort can irritate lung tissue, and powders made from starchy plants (corn, arrowroot) provide food for fungi and are not recommended.

### Are there any barrier creams or ointments I can use to protect the skin?

Barrier preparations provide a protective layer between the skin and urine/faeces.

- ◇ Petroleum gel or soft paraffin: There is no evidence that any barrier cream is more effective than simple water-repellent ointments (white - petroleum jelly or yellow - soft paraffin) in the treatment of uncomplicated nappy rash. A water-repellent emollient or barrier preparation can be applied with each nappy change to reduce irritant contact with urine and faeces. They should be applied thinly to ensure that it is well absorbed. Any excess barrier cream or water-repellent ointment may transfer to the nappy reduce its 'breathability' and preventing it from absorbing faeces/urine.
- ◇ Branded preparations may contain antiseptics, fragrances, and perfumes which may worsen the nappy rash. Also zinc and castor oil products contain pharmaceutical grade arachis (peanut) oil. This is highly refined, and therefore, effectively, the peanut oil should have been removed. As a precaution, however the Committee on the Safety of Medicines advises that people with a known allergy to peanuts or soya (possible cross-sensitivity) should not use medicines containing peanut oil.
- ◇ Vitamin A containing ointments have been suggested as possible treatments for nappy rash although there is not enough evidence to say whether vitamin A is effective for treating or preventing nappy rash and more research is needed.
- ◇ Other creams containing marigold (calendula), honey, tea tree and many others are marketed for nappy rash although there is not enough evidence to say whether they are effective for treating or preventing nappy rash and more research is needed.

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## Is there anything else I can do?

Leave the nappy off as much as possible to let fresh air get to the skin. Obviously, you cannot leave the nappy off all the time. However, the more fresh air, the better. Try letting the baby lie without a nappy on a towel or disposable absorbent sheet for a period of time each day. (However, change the towel or sheet as soon as it becomes wet.)

Don't use tight-fitting plastic pants over nappies. They keep in moisture and may make things worse.

## Treatment for severe nappy rash

Sometimes nappy rash does not improve with simple measures and is more severe. Severe nappy rash is where redness covering an area greater than 10% of the area covered by the nappy, with or without papules (spots), oedema (fluid retention), or ulceration. Moderate to severe nappy rash is more likely to be distressing to your child. Sometimes a nappy rash can be due to infection with a yeast called *Candida albicans* (thrush). Thrush thrives in wet and warm environments and may be combined with other forms of nappy rash caused by irritation from urine. Thrush can be diagnosed by little white pus filled spots on a red base or tiny red spots in the nappy area which your doctor will usually be able to diagnose. Severe nappy rash is generally treated with a prescribed cream or ointment.

## Further management and referral

For some children things do not improve despite following the treatment plan and nappy care principles and they should be followed up and referred appropriately. These include children with persistent nappy rash who after 7–10 days of treatment have not improved or if there is deterioration. A referral may be made to dermatology if any of the following apply:

- Nappy rash remains moderate to severe or distressing despite treatment.
- Nappy rash requires frequent repeated courses of topical corticosteroids.
- The rash has spread onto areas of skin not in contact with faeces /urine.
- Presence of raw areas of skin or ulceration.
- Nappy rash is infected and not getting better with oral antibiotics.
- Cellulitis (an infection of the deeper layers of the skin) is present
- Presence of skin problems elsewhere
- Doubt about the diagnosis

## Further information

For images of nappy rash visit [www.dermnetnz.org/dermatitis/napkin-dermatitis-imgs.html](http://www.dermnetnz.org/dermatitis/napkin-dermatitis-imgs.html)

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