



## Diaper Rash

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Irritant diaper rash is a common experience in the lives of families with diaper aged children. Most, but not all diaper rash is a reflection of local factors (topical irritation from the feces more than urine) contained within the diaper itself. If the rash in the diaper area doesn't occur in the presence of loose or frequent and loose stools, there is a chance that the rash is not a consequence of contact with feces. If there is fever, the rash extends beyond the diaper area that is hardly influenced by the line defining the margin of the diaper, and is not associated with irritant effects of diarrhea, this rash is probably caused by a viral or bacterial illness and the diagnosis and necessary treatment best reside in the hands of a physician familiar with pediatric care.

If there are frequent and loose bowel movements and the injury to the diaper area skin is gradual and progressive, then you have a contact diaper dermatitis and the following care ideas will likely help.

The pendulum of opinion on cloth versus disposable diapers in the prevention of diaper dermatitis has swung back and forth over the years. A clear cut advantage likely does not exist. Some experts would suggest the use of disposable diapers once diaper dermatitis develops. This advice is linked primarily to the purported ability of the disposable diaper to better wick moisture away from the skin. Honestly, promptness in limiting contact time of the feces with the skin is going to make more of a difference than the type or brand of diaper itself.

Loose stools are the genesis of most diaper dermatitis, so a conversation about limiting loose stools is warranted. Almost all diarrhea in childhood is infectious and of viral origin. Refer to the article on Gastroenteritis for suggestions regarding loose stools. Most diarrhea will be improved in just a few days and resolved in a week or so. Your goal is to manage the skin proactively for a week or so. In a perfect world, the bathroom tub or shower would have a hand held shower so that the feces can be gently and thoroughly removed from the diaper skin. Please don't use the kitchen sink sprayer for this purpose or you clearly risk introducing the diarrheal illness that likely started all of this into your own



food source. Sharing is caring? There is **NO** substitute for the complete removal of feces from the skin. Use a gentle cleanser like Cetaphil, Ceravae or Eucerin, lots of tepid (not hot!) water to rinse and pat the skin to dry to reduce wiping and chafing. The diaper skin does not need to be as dry as a desert basin before more ointments are applied and efforts (rubbing, buffing, patting or blow dryers) to do so, will invariably chafe the skin, remove more natural oils and likely aggravate the situation. In your zeal to help, temper your efforts to dry the skin to the level of parchment paper. In many circumstances, the shower spray approach is unavailable and substitutes like moist cloths or disposable diaper wipes will be used as a substitute. Diaper wipes are often pre-moistened. If so, avoid fragrances and drying agents, especially those with alcohol that will likely sting and over dry. The fragrances may be an inherent source of irritation. If you can find very gentle wipes (with a "high thread count?") that can be moistened with tap water, this may be the best choice. In creating a semi-arid diaper skin it is arguable that a blow dryer on a cool setting (don't burn the skin on a heated setting) may be part of the drying process to help limit buffing, rubbing and patting of the skin.

All this water, cleaners, wiping, and patting, no matter how carefully done, will remove natural moisture and oil from the skin leaving it more vulnerable to injury, chafing and breakdown. You'll need to replace moisture / oil to the skin both inside and beyond the diaper area. You can use good quality lotions and creams like Cetaphil, Ceravae and Eucerin beyond the diaper area. Inside the diaper area ointments like Vaseline and Aquaphor will provide excellent moisturizing and have the additional benefit of providing a barrier of ointment so that less of the next stool contacts the skin before you gently, thoroughly and completely remove it from the skin. Barrier ointments that are not mixed with feces need not be completely removed at each diaper change as removal itself has a potentially irritant effect. All of this should be done at every bowel movement. Remember, thorough and gentle! The work involved is considerable and requires a lot of supplies to effectively protect the skin. It's worth the considerable effort for those first few days because the culprit, diarrhea, will usually begin to abate in that time and you can win this battle before the skin fully breaks down.

Once the skin begins to show wear and tear from the diarrhea, opportunists will potentially invade the diaper area. The most likely opportunist that would need special care in the diaper area is the yeast



*Candida albicans*. This yeast loves wet moist warm areas as you'd expect any yeast would. In the classic physical appearance of yeast, the diaper area is a series of small red bumps, potentially with tiny milky blisters on top. The blisters are fragile, may rupture and leave a small superficial ulcer. The rash will be very persistent without specific care. That specific care will involve topical application of an anti-fungal cream or ointment. There are a number of these that are prescription and a few that are now available without prescription. Typical non-prescription choices would include Lotrimin and Lamisil. The margin of the diaper rash is typically most densely infected with yeast and thus the typical advice is to apply the anti-fungal to the entirety of the rash with emphasis at the margin of the rash and the inch of skin beyond the rash that still appears normal. Three or four applications per day will usually be needed and continue for a couple of days after the skin looks great again. Some experts would recommend adding this component to the care of diaper rash after just a few days as a proactive tool to prevent yeast colonization of the diaper area. These creams are affordable and pose little threat to the skin if no yeast is actually present. Look at Google Images to get a visual representation of the diaper area infected by yeast. In situations of considerable inflammation, a very mild topical steroid ointment may be added once or twice a day for a few days to reduce inflammation and the discomfort associated with inflammation. Generally, the decision to add a topical steroid should be reserved for a healthcare provider. The use of antibacterial creams / ointments from the over-the-counter options would often include neomycin as one of the components in the cream. As a self-directed option this should be avoided as it will seldom be helpful, can be a skin sensitizing chemical and would be done at the direction of a physician in special circumstances.

In summary, this set of recommendations for self-initiated or physician directed care is aimed at irritant diaper dermatitis primarily. As a consequence, if diarrhea is not present, you should probably let the pediatrician look at the situation first. If diarrhea and irritant diaper rash are present and you're doing your best with these suggestions and matters are worsening after the first few days (or sooner, if your level of concern is increasing), let us see the child to consider other diagnoses and therapy.