

Domeboro for skin health

Many disturbances to the health of our skin are simply due to a stressful local environment. Repeated exposure to urine and feces contribute to infamous diaper rashes. Adults can have it too; due to constant wetness with skin folds that overlap or areas that are excessively sweaty.

THE TECHNICAL SKIVVY ON THE SKIN: Multiple small proteins are released near the skin surface to form a cornified envelope and small fatty acids are also released into the upper layers of the skin. The lipids surround and fix skin cells on the skin's surface, rather like cement in a brick wall. Lipids repel water and their acidic pH is hostile to bacteria. The skin also secretes small proteins called antimicrobial peptides (eg beta defensins), which are proteins that kill bacteria by damaging their cell membranes. Moreover, additional antimicrobial peptides (eg cathelicidins) are released by cells in response to injury, such as a wound. These antimicrobial peptides act on the 'frontline' of the body to destroy invading bacteria.



The skin's outermost barrier consists of skin commensals (normal bacterial inhabitants like staph epidermidus and corynebacterium) which form the skin microflora, which prevent other potentially pathogenic microorganisms from achieving a foothold on the skin. So restoring the skin to its optimal health frequently will not require antibacterial or even antifungal medication.

With both a baby's bottom and an adult's constantly sweaty skin the first corrective measure is to keep the area clean and dry. To clean the skin, baby wipes of course are convenient on the road, but some are allergenic. If your baby is ok with them, keep using the same brand. Soaking in a tub or pouring water gently over the area is a great way to clean the skin without soap. Soap dries out the skin by removing natural lipids and should be used sparingly if at all. But there are areas that will require soap at times, and if you need it, make a mild soap solution in a spray bottle and spray it on. Maximize your use of water and minimize the scrubbing as it can break the natural skin barriers.

To help pull out the irritation on the skin we can use aluminum acetate astringent solution (Domeboro). It comes in individual packets or a gel sometimes. This *astringent* is available over the counter without prescription (ask the pharmacist... it might be behind the counter). Into a dish-soap bottle (emptied of the soap and cleaned!!) pour one packet and fill the bottle with water. To avoid accidentally drinking it don't use a water bottle and LABEL IT NOW! You will be able to keep using it without refrigerating.



For babies: keep it at the changing table and use a little on a clean paper towel or if you can, keep a bunch of clean washcloths at the table (but only use them once before sending to the laundry again). Plaster the wet towel on the affected skin, allowing the astringent to do its job for a minute or two. It won't hurt unless the skin is really raw.

Next clean the skin with a cloth soaking-wet with *clean* water. Finally, pat it dry (vigorous wiping can traumatize the skin and make things worse). Brave parents of toddlers even let a little naked cruising happen here. Some advise avoiding baby powders, as they are concerned that it gets inhaled into lungs. If however it is used sparingly, talcum or corn starch can make for drier and more comfortable skin. Just use a small amount and don't spew it out near your baby's face.

When the skin ecology is poor, yeast and fungus can grow, and clotrimazole (Lotrimin, an anti-fungal cream), or mycostatin (Nystatin, an anti-yeast cream) can be used. But they don't restore the natural skin health; they just get rid of a bad invader. The invaders will return if the skin doesn't get healthier. If the skin is quite red and irritated, you can use sparingly a mild steroid cream (cortisone or hydrocortisone, available over the counter) to get rid of some redness more quickly, but it does nothing to restore the basic proper skin health. Steroids can also atrophy (thin out) the skin over time, so warnings *not* to use them on diaper rash abound.

A lot of people use moisturizers and protective barrier creams and ointments (and these are heavily advertised). Every person is different so some people may need to use moisturizers. But natural oils (lipids) are best, and by avoiding or minimizing soap, the skin can maintain its natural oils without additional creams. Thick barrier ointments [some all natural too] can be difficult to clean off and by the physical trauma of removing such creams you can worsen the rash.

The last thing to check is that the diapers you are using don't have a perfume that your baby is allergic to, or if using cloth, that there is no allergy to the laundry detergent. Hopefully now you are a skin expert!

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CARING FAMILY, SC 815-459-2200

Todd S Giese, MD, Racquel N Ramirez, MD, George B Gancayco, MD, Jamie
TM Gancayco, MD & Lauren K Mielke, FNP Family Nurse Practitioner.
Visit our website at: www.mycaringfamily.com