

### Breathable Crib Mattress Facts

Recently we have seen the marketing of crib mattresses that are noted to be “breathable”. The underlying approach is that the mattress is designed to be porous. The waterproofing has been removed from the cover, and the baby can breathe right through the cover into the interior of the mattress, and the interior is washable. One purported feature of such “breathe into the interior” mattresses is a presumed lower risk of suffocation.

I have reviewed an independent lab’s testing of both Naturepedic and Lullaby Earth “breathable” mattresses as compared to one of these “breathe into the interior” mattresses. The data clearly shows that both the Naturepedic and Lullaby Earth crib mattress with a breathable mattress pad cover, pass the threshold of what is considered suffocation risk under the worst possible scenarios, and, in fact, pass five (5) times over, and are just as “breathable” as the “breathe into the interior” mattress.”

While there are no differences in suffocation risk between the Naturepedic and Lullaby Earth mattresses compared to the “breath into the interior” mattress design where the baby is able to breathe through the cover fabric into the interior, there are potential issues with the “breath into the interior” design. Please be advised that if the waterproofing is removed from a crib mattress, this can create hygienic issues. More specifically, if the mattress is not waterproof but instead made to be porous so that the baby can breathe into the interior of the mattress, then there is the potential for urine and fecal material to enter the interior of the mattress. This could lead to possible growth of organisms associated with such a process. In my mind it does not seem to be prudent to have a baby breathing into such a space.

Such a mattress can, conceivably, be cleaned. However, this would require continual removal of the interior core of the mattress, washing the interior core in the shower, waiting hours for the core to dry (mattress cores cannot fit into a household dryer), and making sure that all droplets are removed prior to placing back into the exterior fabric.

Please also be advised that parents and caregivers who wish to use such a design need to set aside the time to do the above on an ongoing basis. As well, they need to find alternate sleeping arrangements for the baby during the time that the baby has no mattress. Also if a baby is breathing into the interior of a mattress, caution should be exercised to make sure that no chemicals of concern are contained within the interior space that a baby might breathe.

Parents and caregivers who would like to provide extra breathable airflow for babies should consider adding a breathable mattress pad cover to the crib mattress. With this approach, the baby would get just as much extra breathable airflow as if the baby were breathing into the interior of the mattress, but without the hygienic and chemical concerns that come with breathing into the interior of a mattress. This is exactly what the Naturepedic and Lullaby Earth mattresses and breathable pads provide.

A review of the “breathe into the interior” design concludes that: (a) it is not prudent to remove the waterproofing from a crib mattress as that only creates non-hygienic conditions every time the baby has an accident; (b) this requires asking care-givers to remove the core of a mattress and washing it in the shower and drying it on an on-going basis; (c) this requires finding an alternate crib mattress or other safe sleeping area for the baby every time the mattress is not functional. A far safer approach to adding “breathability” to a crib mattress is to keep the mattress hygienic and to add a breathable layer between the baby and the mattress, as is done with the Naturepedic and Lullaby Earth designs.

A handwritten signature in black ink, appearing to read "Edwin Simpson MD FAAP". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

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