

 **Melatonin for atopic dermatitis and sleep disturbance** (*JAMA Pediatr.* 2015;doi: 10.1001/jamapediatrics.2015.3092)

Scratching in the night and sleep disturbance are always the major concerns for most of the children with atopic dermatitis and their parents, but there is lack of clarity in medicines to be used. Reduced levels of nocturnal melatonin have been linked to sleep disturbance and increased disease severity in children with atopic dermatitis. This study evaluated the role of melatonin in children with atopic dermatitis and disturbed sleep. Following melatonin treatment, the sleep-onset latency shortened, and the severity of atopic dermatitis improved (decrease in the Scoring Atopic Dermatitis Index).

Melatonin supplementation seems to be an important treatment that should be considered whenever children with atopic dermatitis have trouble falling or staying asleep.


 **Anemia in children with atopic disease** (*JAMA Pediatr.* 2005;doi: 10.1001/jamapediatrics.2015.3065)

This retrospective study reported a link between anemia and atopic disease. This link might be related to anemia of chronic disease. We know that children with atopic diseases have higher rates of fatigue, which are usually attributed to chronic sleep disturbances. However, unrecognized anemia may contribute to fatigue in atopic children, and should be considered in those with excessive or unremitting fatigue. The exact mechanism for the observed link between atopic disease and anemia is unknown. Chronic inflammation, food allergen avoidance and use of systemic immunosuppressant medications might be the contributing factors.


 **Nasal irrigation with saline solution for bronchiolitis** (*Acta Paediatr.* 2015;November 6;doi: 10.1111/apa.13282)

All guidelines to treat bronchiolitis till date do not recommend nasal irrigation in bronchiolitis. There is a lack of data on its benefits or adverse effects, but this is a common practice in Italy. The authors of this study randomly assigned infants with bronchiolitis and oxygen saturation (SpO<sub>2</sub>) of 88-94%, to the isotonic, hypertonic or standard care groups. Variations in SpO<sub>2</sub> and the “Wheeze, air exchange, respiratory rate, muscle use (WARM)” respiratory distress score were recorded at 0, 5, 15, 20 and 50 minutes. Five minutes after the intervention, the median SpO<sub>2</sub> value (95%) in the isotonic group was higher than both the hypertonic (94%) and the standard care (93%) groups. The differences between the

isotonic and standard treatment groups were statistically significant, while the hypertonic group only reached significantly higher values after 50 minutes. Authors conclude that a single nasal irrigation with saline solution significantly improves oxygen saturation in infants with bronchiolitis.

 **Resting heart rate and cardiovascular risk factors in adolescents** (*Eur J Pediatr.* 2015;174:1621-8)

Resting heart rate is a marker of cardiovascular disease and mortality in adults, and is associated with higher levels of blood pressure, triglycerides, glucose and obesity in children and adolescents. An analysis of the association between elevated resting heart rate and cardiovascular risk factors in boys and girls is reported in this study. The effect of clustering of cardiovascular risk factors on resting heart rate was analyzed. This study shows that the risk factor clustering is associated with elevated resting heart rate in adolescents, and that the clustering of risk factors amplifies the elevation of resting heart rate in a gender-dependent fashion.

 **Vitamin D content in human breast milk** (*Am J Clin Nutr.* 2015;Dec 16;pii: ajcn115105)

What is the status of Vitamin D content of human breast milk is a question largely unanswered. This study measured the level of Vitamin D2, Vitamin D3 and 25-hydroxyvitamin D [25(OH)D] in maternal blood, foremilk and hindmilk at 2 weeks, 4 months and 9 months postpartum, and at 4 and 9 months in infants. Concentrations of vitamin D and 25(OH)D correlated significantly, and were higher in hindmilk than in foremilk. Vitamin D levels in milk were also correlated with maternal plasma 25(OH)D concentrations. Mothers who were taking vitamin D supplements had higher concentrations than in nonusers. The result showed that exclusively breastfed infants received <20% of the daily dose recommendation of vitamin D for infants during the first year of life.

 **Metformin for children with type 1 diabetes** (*JAMA.* 2015;314:2241-50)

The objective of this study was to assess the efficacy and safety of metformin as an adjunct to insulin in treating overweight adolescents with type 1 diabetes. Giving metformin to obese and overweight adolescents with type 1 diabetes, in addition to their insulin therapy, did not improve glycemic control, but did result in reduced insulin doses and weight.

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