

# The physician's view

## How is asthma-like breathing first noticed in young children?

Parents are usually the first to pick up on early signs of potential asthma due to recurrent wheezing, coughing or unusual breathing patterns during sleep. Although some 30 % of infants may show some level of impaired breathing, symptoms generally resolve as the lungs develop.

## How do you find the children who may benefit from treatment?

With wheeze being a fairly common, but in most cases transient condition, it's a big challenge to identify the children that really do have an early asthma-like condition which would benefit from careful monitoring and possibly medication. It has been found that asthma-like or obstructed breathing conditions reveal themselves very commonly at night, while the child is asleep. Clearly, it would be useful to take advantage of this finding.

## What advantages could night-time measuring offer?

Sleeping conditions are normally replicable to a very high degree, every night, so a night-time measurement technique could not only allow for "one-time" measurements but also reliable, longer-term follow-up. However, night-time observations are only practical when they can be done in the home. A challenge is that the method would need to be easy for the parents to use and to be virtually unnoticeable for the child. Ventica is the first device that meets these basic at-home-use requirements.

## How important is it to involve the parents?

We need the parents' help in the clinic when using diagnostic tools, we need them to give daily medication, and we also need their help with feedback. So, parents are truly indispensable in the care we provide. Understanding and involvement also give parents a sense of empowerment, making it easier for them to accept a physician's advice to start medication. Likewise, if breathing obstruction is relatively moderate, they are better informed to accept advice that starting medication should be delayed. A device like Ventica, which allows parents to participate in measurements while breathing disturbances occur in their child's sleep, can also be immensely comforting for the parents.

## What are your experiences with Ventica?

The results from Ventica measurements appear to correlate well with the results from the standard diagnostic techniques used in our clinic. This is especially true for infants aged 1-3 years. The electrodes and the device do



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not appear to bother children or affect their sleep. Also, parents have found it simple to use. The EVI (Expiratory Variability Index) generated by Ventica is an objective indication of bronchial obstruction. Objective feedback from daily life is important support for clinical decision-making as parents cannot otherwise reliably report wheezing or other signs of obstructed breathing.

## What are your perspectives on treating asthma-like conditions in children?

Since we do not yet have any disease-modifying treatments, and there are none on the horizon, our goal cannot yet be curing asthma, it's more about enabling normal life for the child despite the underlying condition. It is hugely important to optimally control any symptoms. It is important for the child's development, naturally, that they can play as much as the other kids – but equally important is that the parents see that their child is as lively as their peers. However, it is a major step to control asthma with corticosteroids in the youngest of children while their lungs are still developing. New methods for measuring and monitoring lung function in our youngest patients are always welcome. The EVI from Ventica is a promising addition and hopefully proves to be the solution that allows for objective ambulatory feedback to be included into the clinical routine.