

For *Healthwise* Insert
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CRMC Introduces New Pediatric Asthma Test

Young children who experience repeated bouts of dry cough or wheezing can be exhibiting early signs of asthma or other respiratory illness. What's a worried parent to do? Spirometry is a test of lung function that can be helpful in making a diagnosis, but requires coordinated cooperation from children (blowing out rapidly with maximum force at the right moment). For this reason children usually need to be more than six years old for the test to be accurate. What about younger children? How can they be evaluated?

Cortland Regional Medical Center is currently the only hospital in Central New York to offer a new asthma test that studies have shown to be both more accurate and far easier to perform in very young children. The Respiratory Care staff recently began using impulse oscillometry (IOS) testing in its Pulmonary Function Lab as an alternative to conventional spirometry.

According to Jan Simpson, Respiratory Care Manager, this type of test has been found to be especially useful in pediatric, as well as geriatric patients, who are unable to perform the maneuvers required for traditional spirometry testing. In fact, IOS testing is appropriate for children as young as three years old, and can dramatically improve early intervention and treatment to diminish the severity of symptoms as the child grows.

Oscillatory resistance measures can extend the range of pulmonary function testing to children who may be unable to perform a standard flow-volume loop. IOS is measured during quiet breathing and requires very little patient cooperation, just brief normal breathing into a mouthpiece, during the passive measurement. Gentle pulses of air

are superimposed upon the normal resting breathing of the patient, and the resultant changes in airway pressure and flow are detected and analyzed. Airway resistance is computed for multiple frequencies, which can be used to evaluate the central and peripheral airways. Response to a bronchodilator medication is evaluated by a reduction in measured resistance during normal quiet breathing.

“Having this new technology available in our Pulmonary Function Lab will allow for improved diagnosis and management of individuals with known or suspected lung disease,” said Simpson. “This new service will insure that accurate evaluation of lung function is available for individuals in our community that are unable, due to age or disease limitations, to perform full spirometry testing. Early diagnosis can lead to optimum prevention and treatment for young children and therefore less worry for parents.”

*For more information on Impulse Oscillometry Testing,
please call the CRMC Respiratory Care Department at 756-3807.*