

## ABOUT PULMONARY FUNCTION TESTING

Pulmonary Function Testing (PFT) provides specific, objective, physiologic information about respiratory function. At the Pediatric Pulmonary Function Testing Laboratory at the Komansky Center for Children's Health at NewYork-Presbyterian/Weill Cornell, state-of-the-art technology is used to measure lung function in children from age three until adulthood.

PFTs have many uses in clinical pediatric practice including:

### Diagnose the cause of respiratory symptoms.

- PFTs can be used to determine if a patient's respiratory symptoms are secondary to obstructive or restrictive lung disease
- In the case of obstructive disease, the site of obstruction can be determined, contrasting large airway with small airway disease — conditions which require different management strategies
- Measurement of airway reactivity

### Assess response to prescribed therapy.

### Provide an objective measure of asthma control.

**Department of Pediatrics**  
Division of Pediatric Pulmonology,  
Allergy & Immunology  
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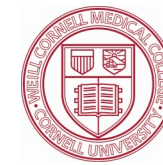
PFT Lab: Fifth floor (HT-5)

Ambulatory Care: Third floor (HT-3)

### For PFT Referrals and Appointments

Tel: 646-962-3410

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Weill Cornell Medical College

**Department of Pediatrics**  
Division of Pulmonology, Allergy & Immunology

## Pulmonary Function Testing Laboratory



FOR MORE INFORMATION, VISIT OUR WEBSITE  
<http://www.weillcornell.org/pedspai/index.html>

 **NewYork-Presbyterian**  
Phyllis and David Komansky  
Center for Children's Health



## CARDIOPULMONARY EXERCISE TESTING

An excellent tool for evaluating the cause of decreased exercise capacity and trouble breathing during exercise, CardioPulmonary Exercise Testing involves the measurement of pulmonary function before exercise, followed by a maximal exercise challenge on a treadmill or stationary bike. During exercise, the body's consumption of oxygen is measured. Afterwards, the pulmonary function tests are repeated. This test can establish the diagnosis of exercise induced asthma or point to a cardiac or respiratory limitation of exercise.

## IMPULSE OSCILLOMETRY

This method of measuring of lung function requires less cooperation than many of the other PFTs. This can be used in younger children (often as young as three years of age) to test for airway reactivity and follow asthma control.



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## Referrals to the Pulmonary Function Testing Laboratory

Patients who are seen in outpatient consultation by our physicians are referred to the Pulmonary Function Testing (PFT) Lab as suggested by their clinical picture. Outpatients cared for by other physicians can be referred directly for testing. Results with interpretation are faxed or emailed to the referring doctor.

Some indications for ordering PFTs:

- Asthma management
- Respiratory symptoms possibly due to asthma with uncertain diagnosis
- Difficulty with exercise
- Scoliosis
- Pre-surgical evaluation

If a referring physician has questions about PFTs and which test might be useful, a member of the Division of Pediatric Pulmonology, Allergy and Immunology would be happy to discuss the case.

**To schedule a PFT or to learn more about our services, please call 646-962-3410.**



## Types of Tests Performed

*At our state-of-the-art Pulmonary Function Testing Laboratory at the Komansky Center for Children's Health at NewYork-Presbyterian/Weill Cornell, we offer a range of PFT tests:*

### SPIROMETRY

This is the most basic pulmonary function test. Spirometry is a measure of airway function that can help determine if there is obstructive lung disease.

### BRONCHIAL PROVOCATION

Tests of airway reactivity involve measuring lung function and then administering an agent that can trigger an asthmatic response in small but increasing doses. Lung function is measured repeatedly to detect excessive reactivity of the airways, as is found in asthma. Afterwards, a bronchodilator is administered to measure the patient's response to potential rescue therapy.

### LUNG VOLUMES

The size of the lungs can be determined by measuring how much air is left in the lungs at the end of exhalation (Residual Volume). This can be important for pre-operative clearance, for the diagnosis and management of restrictive lung disease, and, in cases of obstructive lung disease, for measuring air trapping and hyperinflation.