TASMANIAN LUNG SERVICE

LAUNCESTON LUNG CENTRE

(NORTHERN LUNG FUNCTION SERVICE PTY LTD. | ABN: 55 090 584 311) 6/102 Talbot Rd, South Launceston 7249 TEL: 03 6331 0580 | FAX: 03 6331 1351 | Healthlink EDI: taslungs E: reception@tasmanianlungservice.com | www.tasmanianlungservice.com Online bookings at www.tasmanianlungservice.com

LUNG FUNCTION TEST REQUEST FORM

PATIENT DETAILS

Surname:	Given Names:	
Address:		
Date of Birth:	Ph (Mobile):	Ph (Home):
TEST/S REQUIRED (SEE BACK OF FORM FOR DESCRIPTION OF TESTS)	CLINICAL NOTES	Requesting Dector
 Standard Lung Function Test (Airway function with spirometry, gas transfer, lung volumes) Paediatric Airway Function Test 		Signature: Address:
(Oscillometry for children aged 4YO and over) Airway Function (Airway function with spirometry, airway inflammation with FeNO and gas transfer)		Provider Number: Request Date:
Respiratory Muscle Strength (MIPs/MEPs - Maximal Inspiratory and Expiratory Pressures) Bronchial Challenge test		REQUESTING DOCTOR REMINDER: Please ask patients to withhold any breathing medications for 24 hours if pre and post airway function measurements are required.
(Airway responsiveness to mannitol)		Online bookings at www.tasmanianlungservice.com or call 6331 0580 to make an appointment APPOINTMENT DETAILS:
(*If your practice has an arrangement with the TLS* Selection of airway function, gas transfer, FeNO as appropriate from clinical notes)		Time: am / pm

TEST DESCRIPTIONS

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Spirometry (Airway Function)

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Maximal expiratory and inspiratory efforts to determine the speed of lung emptying and filling, and the calculation of volumes such as FEV1 and FVC. Usually measured before and after a short-acting bronchodilator.

CLINICAL APPLICATION: "Gold Standard" in measuring obstructive ventilatory defects such as those found in COPD and poorly controlled asthma. Significant increases in post BD FEV1 can indicate a "bronchodilator response" in keeping with Asthma or Asthma-COPD Overlap Syndrome (ACOS).

Oscillometry (Airway Function)

Quiet tidal breathing to determine the presence of any flow limitation in the airways. An ideal test for children and those people who are unable to perform spirometry. Usually measured before and after a short-acting bronchodilator.

▶ CLINICAL APPLICATION: Considered to be very sensitive to small airway changes as found in COPD and poorly controlled asthma. Provides similar information to spirometry and significant reductions in resistance and reactance (its two primary parameters) after a SABA can indicate a "bronchodilator response" in keeping with asthma or Asthma-COPD Overlap Syndrome (ACOS).

Exhaled Nitric Oxide

Increased levels of exhaled NO can indicate eosinophilic airway inflammation. CLINICAL APPLICATION: Can be used to assist in the diagnosis and management of atopic asthma and other eosinophilic processes.

Gas Transfer (Diffusing capacity)

The single-breath uptake of carbon monoxide in the lung is a measure of the lungs' ability to transfer gas from the alveoli into the blood-stream.

CLINICAL APPLICATION: Pathologies that affect the lung parenchyma such as emphysema and pneumonitis/Interstitial Lung Disease can cause a reduction in gas uptake. It is also sensitive to other changes that reduce diffusion such as pulmonary vascular disease (Pulmonary hypertension) or gas uptake in the pulmonary circulation, such as anaemia.

Lung Volumes

A measure of various volumes and capacities of the lungs useful in determining restriction (small lungs), hyperinflation and gas-trapping.

CLINICAL APPLICATION: Pathologies that cause hyperinflation (large lungs) such as COPD and Asthma can be assessed, together with levels of gas-trapping. Restrictive defects from intrinsic disease such as interstitial lung disease or external factors such as chest wall abnormalities (e.g. scoliosis, pectus excavatum) or neuromuscular conditions (e.g. MND, GBS, paralysed hemi-diaphragm) can be quantified.

Bronchial Challenge Test

Mannitol powder is taken through an inhaler in successive doses, which dries the surface of the airways. If they are hyper-responsive, airway function will drop (fall in FEV1 measured with spirometry) and reach a level that is considered to be a "positive test".

CLINICAL APPLICATION: Useful in providing support to a clinical assessment for the presence of asthma or the effectiveness of asthma therapy.

Respiratory Muscle Strength

The measurement of the maximal pressures that can be measured from a full inspiration (TLC) or expiration (RV). Commonly called MIPs (Maximal Inspiratory Pressures) and MEPs (Maximal Expiratory Pressures).

CLINICAL APPLICATION: Respiratory Muscle Strength may be used to assess the effect of neuromuscular disorders such as MND or Guillain-Barré syndrome or other conditions such as a paralysed hemi-diaphragm.

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