



Clinical Usefulness of the DLCO Test

INTRODUCTION

A test of the diffusing capacity of the lungs for carbon monoxide (DLCO) is one of the most clinically valuable tests of lung function. Diffusing capacity (also known as transfer factor) is measured using small volumes of carbon monoxide (CO) and measures the transfer of CO across the alveolar-capillary membrane. DLCO can assist in the identification, assessment of severity and monitoring of a wide range of disease processes affecting the lung parenchyma and pulmonary vascular bed.

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INDICATIONS

There are multiple clinical indications for measurement of DLCO, and there are no contraindications or adverse effects.

Indications for performing a DLCO test include:

- Differentiating emphysema from obstructive bronchitis and chronic asthma
- Assessment of COPD
- Differential diagnosis of lung volume restriction
- Detection of pulmonary vascular disease
- Assessment of the breathless patient
- Disability/impairment evaluations for ILD or COPD
- Follow-up for ILD



Dr Michael Thompson

Interpretation of DLCO Summary

Decreased DLCO

- Emphysema
- Interstitial lung disease
 - Interstitial pneumoniae (e.g idiopathic pulmonary fibrosis)
 - Hypersensitivity pneumonitis (e.g pigeon breeder's lung)
 - Sarcoidosis
 - Drug induced lung disease (e.g amiodarone, bleomycin)
 - Collagen-vascular disease (e.g SLE, RA, Scleroderma)
 - Occupational lung disease
- Pulmonary vascular disease
 - Pulmonary arterial hypertension
 - Pulmonary embolism
- Left-sided heart disease
 - Systolic and diastolic heart failure
 - Mitral valve disease
- Anaemia

Increased DLCO

- Pulmonary haemorrhage (e.g pulmonary vasculitis)
- Polycythemia
- Current smoker (in absence of emphysema)
- Pregnancy (if not anaemic)



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Contact our scientist **Charmaine O'Reilly** for spirometry assistance on 5591 7192



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