

Part B Insider (Multispecialty) Coding Alert

Understanding Diffusing Capacity Tests

Carbon monoxide diffusing capacity and membrane diffusion capacity form a part of complete pulmonary function tests that also include spirometry, lung volume(s), flow volume loop and airway resistance.

Carbon monoxide diffusing capacity is a pulmonary function test that helps measure the available surface of the lung for diffusion. It also gives an idea about the volume of blood in the pulmonary capillaries, as well as finding the thickness of the alveolar capillary barriers. The test also helps understand the ability of the lungs to exchange oxygen and carbon dioxide to the bloodstream. "The test can diagnose certain lung diseases, and repeat testing can also identify improvement or disease progression for patients with established lung disease," says **Carol Pohlig, BSN, RN, CPC, ACS**, senior coding and education specialist at the University of Pennsylvania Department of Medicine in Philadelphia.

The values of DLCO are usually reduced in many of these lung conditions although in conditions such as pulmonary hemorrhage, asthma, and polycythemia you may see an increase in the value.

Typical indications for testing include:

- Evaluate and follow up parenchymal lung diseases associated with dusts, drug reactions or Sarcoidosis,
- Evaluate and follow up emphysema and cystic fibrosis,
- Differentiate between chronic bronchitis, emphysema, and asthma in patient with obstructive patterns,
- Evaluate the pulmonary involvement in systemic diseases (e.g., rheumatoid arthritis, systemic lupus),
- Help in the evaluation of some types of cardiovascular disease (e.g., primary pulmonary hypertension, pulmonary edema, acute or recurrent thromboembolism),
- Predict arterial desaturation during exercise in chronic obstructive pulmonary disease,
- Evaluate and quantify the disability associated with interstitial lung disease,
- Evaluate the effects of chemotherapy agents or other drugs known to induce pulmonary dysfunction,
- Evaluate hemorrhagic disorders.

"Testing is contraindicated in patients with mental confusion, muscular incoordination or previous symptoms triggered by an associated Valsalva or Muller maneuver which may slow the heart rate" says Pohlig.