

# **Effect of hemodialysis on pulmonary function in patients with End stage renal disease.**

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## *Abstract*

**Background:** Chronic diseases have become a major cause of global morbidity and mortality even in developing countries. Regardless of the etiology, patients with end-stage renal disease (ESRD) would usually experience decreased quality of life. They commonly encounter problems related to the metabolic complications of their kidney disease or hemodialysis complications. Various problems related to vascular access in patients on hemodialysis and to abdominal catheters in patients on continuous ambulatory peritoneal dialysis are also common.

**Aim & Objective:** 1. Clinical profile of end-stage renal disease. 2. Effects of Hemodialysis on Pulmonary Function in Patients with End-stage Renal Disease

**Methods:** Study design: Prospective Observational Study. Study setting: Medicine ward tertiary care centre. Study duration: 2 years.

**Study population:** The study population included all the cases with End-stage Renal Disease admitted at a tertiary care center

**Sample size:** 26

**Results:** After hemodialysis, the FVC significantly increased ( $P = .02$ ), while no significant improvement in the FEV1, VC, and FEV1/FVC ratio were observed. Gender was related to the changes in VC, with better results in women ( $P < .001$ ). There was no association between the changes in spirometry parameters and age, body mass index, cause of kidney failure, type of anion used for hemodialysis, and weight changes.

**Conclusions:** According to our results, pulmonary function, especially the FVC, improves after a session of hemodialysis.

**Keywords:**

[End-stage renal disease](#) [Pulmonary function](#) [Hemodialysis](#) [FEV1](#) [VC](#) and [FEV1/FVC ratio](#)