

# Cystic Fibrosis Research News

**Title:**

Prevalence and characteristics of chronic kidney disease among Danish adults with Cystic Fibrosis.

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**What was your research question?**

Among the Danish adult patients with cystic fibrosis (CF) from Copenhagen (CPH) CF Centre, we intended to investigate the occurrence of chronic kidney disease (CKD) and the characteristics of patients with CKD.

**Why is this important?**

The number of adults living with CF has increased due to the continuous improvement in care, with an expected median survival of 41,6 years. With the improved prognosis of CF, comorbidities such as CKD are becoming increasingly important. Identification of those at highest risk for impairment of kidney function is therefore a priority.

**What did you do?**

In this study, we hypothesized that CKD is more common in the adult CF population as compared to the general adult Scandinavian population, and that CF related diabetes and a longer lifetime exposure to potentially kidney damaging antibiotics were the most important risk factors for CKD. Clinical and laboratory data was obtained via electronic medical files for adults (age above 18 years) with CF attending the CPH CF Centre at Rigshospitalet from January 1<sup>st</sup> 2013 to January 1<sup>st</sup> 2015. Information on kidney function was analysed.



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## What did you find?

Amongst the 181 CF individuals included in the study, CKD occurrence was 2.7%. This increased to 11% after inclusion of lung transplanted patients. Individuals with CKD were generally older, diabetic, had longer durations of chronic pulmonary infection and longer exposure to potentially nephrotoxic antibiotics compared to those without CKD. The occurrence of CKD in this CF population was higher than in the general population of similar age.

## What does this mean and reasons for caution?

We made this study, because there was a need to characterize the extent of CKD in adults with CF. The factors associated with kidney impairment are in line with the literature. There is a need to investigate if it possible to reduce / modify these factors as part of CF care. In conclusion, the CKD occurrence in the CF population is high and related to age, diabetes, chronic pulmonary infection, transplantation and antibiotic usage.

## What's next?

Our observations call for further studies investigating the reasons behind the increased risk for chronic kidney disease among adults with cystic fibrosis.

## Original manuscript citation in PubMed

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