

# Cystic Fibrosis Research News

**Title:**

The Impact of Pregnancy on Mortality and Lung Function in Cystic Fibrosis Patients

**Lay Title:**

Reassurance in Pregnancy and Cystic Fibrosis

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**What was your research question?**

Does pregnancy impact survival and lung function in people with cystic fibrosis (pwCF)?

**Why is this important?**

Historically, pregnancy was considered too risky for pwCF. However, improved treatments have led to longer lifespans and more individuals have successfully pursued pregnancy and parenthood. While healthcare providers often support pregnancy in some pwCF, there is limited data on its long-term effects on health outcomes and many of the larger studies often referenced are from many years ago. An updated understanding whether pregnancy influences survival and lung function is critical for informed medical decision-making and counselling.

**What did you do?**

We analyzed 20 years of data from the Cystic Fibrosis Foundation Patient Registry (CFFPR), a large database that tracks the health of pwCF. We identified 1,743 individuals who had been pregnant at least once and compared them to similar pwCF who had never been pregnant. We focused on two key health outcomes: survival rates and lung function, measured by FEV-1 percent predicted (FEV-1pp), a standard test for lung health. Additionally, we looked at factors like body mass index (BMI), CF-related diabetes, and infections. By comparing these groups, we aimed to determine whether pregnancy had any long-term negative effects.

**What did you find?**

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The results were encouraging. Pregnant pwCF had an improved survival. There was no difference in lung function trajectory between the two groups. For pwCF with severe lung disease ( $FEV_{1pp} < 40\%$ ), the survival benefit was less clear. Other factors, such as higher BMI, were linked to better outcomes, while CF-related diabetes and the need for oxygen increased risks.

## **What does this mean and reasons for caution?**

These findings suggest that pregnancy is not inherently dangerous for many pwCF. This provides reassurance for those who wish to have children. However, pregnancy is still a major medical event, and risks vary based on individual health status so careful monitoring is essential. We acknowledge that unaccounted factors such as socioeconomic status and healthcare access may influence pregnancy decision-making and outcomes. While this study offers promising insights, it is based on past data, and ongoing research is needed for more precise guidance.

## **What's next?**

Active prospective research is ongoing to better understand the long-term effects of pregnancy. Researchers are also exploring how new CF treatments such as modulators impact pregnancy outcomes. In the meantime, these findings support a more individualized approach. While careful medical supervision is necessary, pregnancy should not be broadly discouraged.

## **Original manuscript citation in PubMed**

<https://pubmed.ncbi.nlm.nih.gov/39984374/>