



# Cystic Fibrosis Research News

**Title:** Parenthood Impacts Short-term Health Outcomes in People with Cystic Fibrosis

**Lay Title:** Health Changes in People with CF the Year After Having a Child

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## **What was your research question?**

For people with cystic fibrosis (CF) who became parents, we asked if lung function, nutritional status or number of pulmonary exacerbations changed in the year after they became parents. We also asked if results were different for males versus females or people taking CF modulators versus not taking modulators.

## **Why is this important?**

People with CF are living longer, healthier lives. Therefore, more people with CF are thinking about becoming parents. However, there are things about being a parent that could be especially challenging for someone with CF. For example, the time it takes to care for a new baby might make it difficult to do all of your therapies. As another example, a child in day care may get a cold that causes the parent with CF to have a pulmonary exacerbation. Currently,

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very little is known about how deciding to become a parent might change someone's health when they have CF.

## What did you do?

Since 2016, the United Kingdom (UK) CF Patient Registry has collected data about whether men and women with CF became parents. We asked the UK trust to share data (without sharing any individual's identity) about parenthood, lung function, nutritional status and number of days someone received intravenous antibiotics for pulmonary exacerbations. We compared the data in the year before someone became a parent to data in the year after someone became a parent. We also looked to see if being a parent changed the health of females more than males or if it was different for people taking CF modulators.

## What did you find?

We analysed data for 296 people with CF in the UK who became parents between 2016-2019. We found that on average, parents had a decrease in lung function and nutritional status and an increase in pulmonary exacerbations (based on a higher number of days on intravenous antibiotics) in the year after they became parents compared to the year before they became parents. Females with CF experienced more decrease in nutritional status than males, but decreases in lung function were about the same between females and males. Finally, taking CF modulators protected parents from decreases in lung function.

## What does this mean and reasons for caution?

This study tells us that in the year after a person with CF becomes a parent, it is possible that the many challenges of parenthood may lead to a decline in health. The health decline may be worse for females than males. However, the decline might be prevented for those people with CF who are able to take CF modulators. Although we did study 296 people with CF, all of them were from the UK. Because there are large differences in time off for parents between different countries, our results may not apply to people with CF outside the UK.

## What's next?

Because this study looked back in time, we could not gather all the information that might tell us which parts of parenthood were the hardest on people's health. We hope to do a study that follows parents forward in time so we know how to best support parents with CF.

## Original manuscript citation in PubMed

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