

# Cystic Fibrosis Research News

**Title:**

Coronary artery disease in Cystic Fibrosis: An Emerging Concern?

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**What was your research question?**

Is there a link between cystic fibrosis (CF) and coronary artery disease (plaques and blockages in the arteries of the heart)?

**Why is this important?**

CF can lead to diabetes and chronic inflammation. In addition, the prescribed diet of individuals with CF often contains high levels of fat and salt. These are known to increase the risk of coronary artery disease in the general population.

**What did you do?**

As part of lung transplant assessment at our centre, a coronary angiogram (an invasive imaging test to detect coronary artery disease) is done in all individuals with CF age 40 and older being considered for transplant. This provided us with a very unique opportunity to evaluate heart disease in CF. We examined the angiograms for evidence of coronary artery disease in adults with CF age 40 years or older.

We suspected this might be more common in individuals with CF because they often have diabetes, high fat and salt diets, and chronic inflammation (all of which are known to increase the risk of disease of the heart and the blood vessels).

**What did you find?**

Of the 73 adults assessed for lung transplant, 16 of them were age 40 or older and 14 had a coronary angiogram. Interestingly, all of the angiograms were normal with no plaques or blockages in the arteries. None of these individuals had a history of a heart attack. Our study



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indicates that coronary artery disease is uncommon amongst adults with CF, even in those who should be at higher risk (older age, diabetes, higher cholesterol, chronic inflammation).

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

These findings are reassuring but this is a small study that does not represent the entire CF population. We were also unable to obtain information about smoking and family history of heart disease, which are important risk factors for coronary artery disease.

## **What's next?**

Larger studies of the broader CF community are needed to further support this observation as people with CF continue to live longer.

## **Original manuscript citation in PubMed**

<https://www.ncbi.nlm.nih.gov/pubmed/?term=Coronary+artery+disease+in+Cystic+Fibrosis%3A+An+Emerging+Concern%3F>