



# Cystic Fibrosis Research News

## **Title:**

Testicular pain following initiation of elexacaftor / tezacaftor / ivacaftor in males with cystic fibrosis

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

Our article describes a previously unreported side effect, testicular pain, with elexacaftor/tezacaftor/ivacaftor (Trikafta). We included details on when and how it might occur, as well as what next steps were taken when patients who reported it.

## **Why is this important?**

All members of the Cystic Fibrosis care team, including pharmacists, should be aware of this uncommon side effect, so that patients with male anatomy can be educated on the possibility of it occurring, how to manage it if they do experience it, and be informed that we are unable to confirm without additional testing whether or not it is impacting their fertility.

## **What did you do?**

We reviewed what is currently known about how cystic fibrosis impacts the male reproductive system. We hypothesized how elexacaftor/tezacaftor/ivacaftor (Trikafta) might be impacting it. We summarized our patients' experiences with this side effect, including when it started, how long it lasted, what was done to manage the pain, and what additional testing their individual CF care teams recommended.

## **What did you find?**

All patients who experienced this side effect noticed it within the first one to two weeks after starting the medication. Some patients used over-the-counter pain medications, like

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acetaminophen (Tylenol) or ibuprofen (Advil or Motrin), but not all found that helpful for controlling this pain. Only one patient had testicular pain that lasted more than one week. For that patient, a decrease in his dose of elexacaftor/tezacaftor/ivacaftor (Trikafta) followed by a slow increase back to the full dose allowed him to continue therapy, and he is now pain-free.

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

Patients with male anatomy who experience testicular pain after starting elexacaftor/tezacaftor /ivacaftor (Trikafta) should inform their CF care team for further guidance. While we provided some hypotheses as to why this side effect is occurring, further research is needed to determine the true cause and understand this medication's impact on male fertility. Our best advice to patients on this medication with partners that may be able to get pregnant is to consider contraception if that is something they wish to avoid, or to work with a fertility specialist if that is something they and their partner would like to pursue.

## **What's next?**

Studies that include semen analysis before and after starting elexacaftor / tezacaftor / ivacaftor (Trikafta) could provide more information about the impact of this medication on male fertility.

## **Original manuscript citation in PubMed**

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