

Ibuprofen: Information for Patients and Families

Background

Use of ibuprofen in cystic fibrosis (CF) began in 1995 with publication of the results of a Cystic Fibrosis Foundation-supported four-year, double-blind, placebo-controlled trial of ibuprofen in people ages 5 to 39 years with CF. The study showed that ibuprofen slowed the rate of pulmonary decline over a four-year period. Those taking ibuprofen also had better growth and were in the hospital less than those who did not take ibuprofen. Everyone had mild lung disease at the start of the study. The effect on pulmonary function took years to show. The people with CF who benefited the most were those who took the drug consistently throughout the four-year study period, and who were younger than 13 years of age when the study began. A study in Canada in people with CF ages 6 to 17 years and data from CF Foundation's Patient Registry also supports the benefits of ibuprofen in CF.

What is ibuprofen?

Ibuprofen is an anti-inflammatory and non-steroidal agent (does not upset hormonal balance), most often prescribed to treat arthritis, fever, menstrual symptoms and pain. Ibuprofen was originally developed as a prescription drug called Motrin[®]. Today, ibuprofen is available over-the-counter and by prescription by several different manufacturers and is sold as Advil[®], Nuprin[®] and Motrin-IB[®], among others.

Should all people with CF be taking ibuprofen?

Only your CF doctor can determine whether ibuprofen is appropriate for you or your child. There are several factors to consider before taking this drug long-term. First, the risk of side effects may change depending upon your or your child's condition. In the study, researchers found that ibuprofen was effective in people with mild lung disease who were old enough to do pulmonary function tests (PFTs). Children who could not do PFTs, or who had moderate to severe lung disease, were not included in the study. Children benefited the most from the therapy. If you are an adult with CF, and you were started on ibuprofen as a child, or never started this therapy, talk to your CF doctor to find out if ibuprofen is right for you.

Should I buy ibuprofen over-the-counter and start taking it now?

Ibuprofen is not right for everyone with CF. First, your CF doctor needs to confirm that you or your child would most likely benefit from the drug. Second, if you or your child have certain conditions ibuprofen should not be taken. Talk with your CF doctor to find out more. Also, your doctor needs to prescribe the right amount of drug for you or your child. The doses needed are quite high and are based on a blood test. It is unwise to start taking ibuprofen from the drug store without talking to your CF doctor. Too low a dose means that you or your child will miss the benefit and still risk side effects. There is an even greater risk if the dose is too high.

Once I start taking ibuprofen, when will I feel better?

Ibuprofen will not make you or your child feel better right away. It slows the rate of lung damage in people with CF. It does not improve lung function or stop lung infections (exacerbations) right away. The benefits of four years of ibuprofen were significant, but after one year of taking it, few people reported "feeling" better. You or your child will need to keep taking the drug, day in and day out, year after year, to get the full benefit.

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What are the side effects related to ibuprofen?

Stomach upset is the most commonly reported side effect for anyone taking ibuprofen. People with CF generally experience more stomach upset than others even when not on ibuprofen. Therefore, tell your CF doctor whenever new stomach problems occur. Do not just assume they are due to ibuprofen. Although rare, bleeding from the gastrointestinal (GI) tract can also occur for anyone taking ibuprofen. Like stomach upset, GI bleeding can occur in people with CF who do not take ibuprofen. Do not assume that GI bleeding, if it occurs, is due to ibuprofen.

Ibuprofen also may interfere with the ability of the blood to form a clot. This leads to bleeding “tendencies.” Nosebleeds, for example, might be worse when you are on ibuprofen. If you or your child have bleeding tendencies, mention this to your CF doctor when discussing the pros and cons of taking ibuprofen. Overall, ibuprofen appears less risky than aspirin.

There has been some concern that ibuprofen can cause kidney damage. This can occur, but it is unlikely. Scientists know that ibuprofen decreases blood flow to the kidneys and slows down the kidneys’ ability to clear out other drugs. Your CF doctor may need to adjust the doses of other drugs you or your child are taking. Other side effects are more unusual or less severe. Ask your CF doctor about these other side effects of ibuprofen.

How much is ibuprofen going to cost, and can I take the cheapest brand?

Ibuprofen treatment for CF, even at the highest dose, will cost less than other CF drugs. Because the release of ibuprofen into the body from different brands varies, you should use the brand prescribed by your CF doctor. This fact, rather than the cost difference among brands, must be the deciding factor. Once the blood levels of ibuprofen are measured and adjusted using one brand, the same brand should always be used to get the right amount of ibuprofen into your bloodstream.

For more information on ibuprofen, contact your local CF Foundation-accredited care center.

The mission of the CF Foundation is to assure the development of the means to cure and control cystic fibrosis and to improve the quality of life for those with the disease.

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