

Curcumin: Information for Patients and Families

In April 2004, researchers from Yale University and the Hospital for Sick Children in Toronto, funded by the National Institutes of Health and the Cystic Fibrosis Foundation, published the results of a study on the effects of curcumin in cystic fibrosis (CF) mice with the DeltaF508 mutation of the CF gene. The CF Foundation also announced concurrently that it is working with SEER Pharmaceuticals to begin a safety trial of curcumin in people with CF. This fact sheet answers questions about curcumin and the CF Foundation's clinical trial plans. **The CF Foundation advises against taking curcumin until studies on its safety and effectiveness can be completed.**

What is curcumin?

Curcumin is a component of the spice, turmeric, and is what produces its bright yellow color and strong taste. Although curcumin is available as a nutritional supplement in health food stores, these supplements are not approved by the Food and Drug Administration (FDA). Therefore, the purity and quality of such supplements is not known and they may contain other ingredients of unknown origin. The additional ingredients also may mask any potential beneficial effects of curcumin.

Can curcumin benefit me or my child?

It is not yet known whether curcumin will benefit people with CF. Benefits seen in mice often do not occur in humans. It is important to point out that the study was conducted in mice only and that CF mice only have the digestive complications of CF, not the lung problems. **Until the dosage, safety, and possible benefits for people with CF have been studied in clinical trials, the CF Foundation does not recommend curcumin as a therapy.**

For now, people with CF should continue with their existing therapies as prescribed by their CF physician. Introducing any experimental therapy — including curcumin — that has not been appropriately studied could have unknown and potentially dangerous side effects. Talk with your CF physician before making any changes in your or your child's therapies.

What is the CF Foundation doing to bring curcumin to patients?

The CF Foundation funded the study on the effects of curcumin in CF mice. The results of this research were very encouraging. The mice showed signs of CFTR correction and improved survival rates. **It is too soon to say if curcumin would do the same in people and if it would alter the course of disease in CF patients.**

The CF Foundation is moving forward with preclinical studies in animals and also will begin a Phase I safety and dosage trial in CF patients as quickly as possible. Working with SEER Pharmaceuticals, the trial is expected to begin in the late summer/early fall of 2004.

What are the side effects of taking curcumin?

The side effects of curcumin are not yet known and is part of what will be established

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through clinical trials. In previous research, curcumin has been safe but these have been in patients with other diseases. Interactions between curcumin and standard CF therapies could occur and have harmful effects.

Who manufactures curcumin?

Curcumin is available from a variety of nutritional supplement manufacturers. It comes in varying concentrations, strengths and formulations and is not regulated by the FDA. Therefore, the amount of curcumin contained in these supplements is not standardized.

If curcumin is effective in CF mice, then shouldn't it also benefit people with CF?

Not necessarily. CF mice often have different reactions to therapies than people do. Because mice with CF only have the digestive complications and not the lung problems, it is hard to say if the lungs of people with CF would benefit from something that benefits the digestive systems of mice.

How can I or my child participate in the curcumin clinical trial?

The clinical trial for curcumin is being designed now. Information about CF clinical trials is regularly updated on the CF Foundation's Web site at www.cff.org. You also can ask your CF care team about any clinical trials that may be taking place in your area.

What other potential therapies does the CF Foundation have in the pipeline to treat or cure CF?

Cystic Fibrosis Foundation Therapeutics, Inc. (CFFT), the nonprofit drug discovery and development affiliate of the CF Foundation, has nearly two dozen potential therapies in various stages of preclinical development and clinical trials in its therapeutics development pipeline. Any one of these, if successful, could make a dramatic difference in the lives of those with CF. Some therapies treat the symptoms of CF, while others address the basic defect in CF cells. A list of CFFT-supported clinical trials and their descriptions is available on the CF Foundation's Web site at www.cff.org. CFFT will continue to move these potential treatments forward while also adding new therapies to the development pipeline.

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