

Curcumin May Prevent Heart Failure

Eating curcumin, a natural ingredient in the spice turmeric, may dramatically reduce the chance of developing heart failure, researchers at the Peter Munk Cardiac Centre of the Toronto General Hospital have discovered.

In a study entitled, “Curcumin prevents and reverses murine cardiac hypertrophy,” published in the February edition of the *Journal of Clinical Investigation*, researchers found when the herb is given orally to a variety of mouse models with enlarged hearts (hypertrophy), it can prevent and reverse hypertrophy, restore heart function and reduce scar formation.

The healing properties of turmeric have been well known in eastern cultures for some time. The herb has been used in traditional Indian and Chinese medicine to reduce scar formation. For example, when there is a cut or a bruise, the home remedy is to reach for turmeric powder because it can help to heal without leaving a bad scar.

Unlike most natural compounds whose effects are minimal, curcumin works directly in the cell nucleus by preventing abnormal unraveling of the chromosome under stress, and preventing excessive abnormal protein production.

“Curcumin’s ability to shut off one of the major switches right at the chromosome source where the enlargement and scarring genes are being turned on is impressive,” says Dr. Peter Liu, cardiologist in the Peter Munk Cardiac Centre and Scientific Director at the Canadian Institutes of Health Research – Institute of Circulatory and Respiratory Health. However Dr. Liu cautions that moderation is important, “the beneficial effects of curcumin are not strengthened by eating more of it.”

Dr. Liu, who holds the Heart and Stroke Foundation’s Polo Chair Professor in Medicine and Physiology at the University of Toronto, says that since curcumin is a naturally occurring compound that is readily available at a low cost, it might be a safe and effective means of preventing heart failure in the future.

“Whether you are young or old; male or female; the larger your heart is, the higher your risk is for developing heart attacks or heart failure in the future. However, until clinical trials are done, we don’t recommend patients to take curcumin routinely. You are better off to take action today by lowering blood pressure, reducing cholesterol, exercising and healthy eating,” says Dr. Liu.

If clinical trials of curcumin support initial findings of heart enlargement prevention, it may offer hope for millions of patients with heart enlargement in a relatively safe and inexpensive manner. Curcumin-based treatments are currently in clinical trials for pancreatic and colorectal cancer patients with promising results.