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Exercise May Stem Kidney Damage in Lupus Patients

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Regular exercise may slow kidney damage in people with lupus while stress may prompt the opposite effect, new research suggests.

The autoimmune disease causes the body to attack and damage vital organs such as the kidneys. Singer Selena Gomez put lupus in the spotlight last week when she received a kidney transplant because the disease had ravaged her own kidneys.

But the new research, which included two mice trials and a slightly different human trial, offers new strategies that might help other lupus patients avoid the same fate.

In the first trial, only 45 percent of mice with the disease that did moderate exercise (45 minutes of treadmill walking a day) had severe inflammatory damage to the kidneys, compared with 88 percent of those that did not exercise.

In another experiment, mice with lupus that were subjected to daily stress had significant increases in inflammatory kidney damage compared to those that didn't have stress, according to the Ohio State University researchers.

“If we observe similar results in human studies, this could mean that stress reduction and a daily regimen of physical therapy should be considered as interventional strategies to be used alongside current medical treatment,” said study senior author Nicholas Young, a research scientist in rheumatology and immunology at Ohio State.

The researchers have already begun to explore that possibility. Young and his colleagues had a small number of lupus patients do a daily tai chi exercise program. Initial findings showed a significant decline in some indicators of inflammation in the patients.

The scientists are now trying to arrange a larger clinical trial with lupus patients.

“We may have started to characterize an effective way to reduce inflammation and help people with lupus aside from conventional drug therapy,” Young said in a university news release.

The results will be presented at the American College of Rheumatology meeting in November, and were published recently in *Frontiers in Physiology*.