

## Quercetin: A Viable Option for Minimizing Oxidative Damage in Diabetics?

By Greg Arnold, DC, CSCS, November 21, 2005, abstracted from "Quercetin Decreases Oxidative Stress, NF- B Activation, and iNOS Overexpression in Liver of Streptozotocin-Induced Diabetic Rats" in the October 2005 issue of the *Journal of Nutrition*

Link – <http://www.nowfoods.com/HealthLibrary/HealthArticles/WeeklyNewsletter/M075186.htm>

As the fifth-leading cause of death in the United States, Type 2 diabetes costs our healthcare system \$132 billion each year by dramatically increasing your risk for heart disease, blindness, kidney failure, extremity amputations, and other chronic conditions.<sup>1</sup>

Type 2 Diabetes' toll on health lies in the "oxidative stress" damage done to cells by the high blood sugar levels in the blood.<sup>2</sup> So a primary prevention and treatment strategy in Type 2 Diabetes, after managing blood sugar, is to increase your antioxidant intake. A new study published in the *Journal of Nutrition*<sup>3</sup> has found that quercetin can help minimize oxidative damage from type 2 diabetes.

Belonging to a class of antioxidants called bioflavonoids, quercetin is found in abundant amounts in plants and has received considerable attention for its potential to help prevent and treat cancer.<sup>4</sup> Past NOW Foods articles have also talked about [Quercetin's ability to help prevent Alzheimer Disease](#).

In the study, researchers divided rats into four groups: control rats (without type 2 diabetes), control rats treated daily with quercetin (150 micromoles per kg), untreated diabetic rats, and diabetic rats treated with quercetin. At the end of eight weeks, researchers measured makers of oxidative stress and found that although blood sugar levels did not change in any of the rats, all of the oxidative stress markers in the diabetic rats "were abolished by quercetin."

For the researchers, "These findings suggest that quercetin treatment...may block the production of [the oxidative stress] involved in the development of early diabetes tissue injury and in the evolution of late complications."

Greg Arnold is a Chiropractic Physician practicing in Danville, CA. You can contact Dr. Arnold directly by emailing him at [PitchingDoc@msn.com](mailto:PitchingDoc@msn.com) or visiting his website [www.PitchingDoc.com](http://www.PitchingDoc.com)

### Reference:

<sup>1</sup> Hogan, P., T. Dall, et al. (2003). "Economic costs of diabetes in the US in 2002." *Diabetes Care* 26(3): 917-32

<sup>2</sup> Saha, A., S. Adak, et al. (2005). "Enhanced oxygen releasing capacity and oxidative stress in diabetes mellitus and diabetes mellitus-associated cardiovascular disease: a comparative study." *Clin Chim Acta* 361(1-2): 141-9

<sup>3</sup> Collado PS. Quercetin Decreases Oxidative Stress, NF- B Activation, and iNOS Overexpression in Liver of Streptozotocin-Induced Diabetic Rats. *J. Nutr.* 2005 135: 2299-2304

<sup>4</sup> Lamson, D. W. and M. S. Brignall (2000). "Antioxidants and cancer, part 3: quercetin." *Altern Med Rev* 5(3): 196-208