

## Mild Hypothyroidism May Double Risk of Heart Failure

For the first time, scientists have detected a link between subclinical hypothyroidism and a two-fold increase in the risk of developing heart failure.\* The results of the new study were presented in New York recently, at the annual meeting of the American Thyroid Association. The study involved more than 3,000 individuals 65 years of age or older.

Compared with people who had normal thyroid-stimulating hormone (TSH) levels, people with mildly low levels of the hormone (detectable only with a blood test) were twice as likely to develop congestive heart failure. This condition results when the heart is incapable of supplying adequate blood to the organs. It is characterized by fatigue, ankle swelling, and shortness of breath, and may eventually result in death.

Previous studies have shown that an overactive thyroid (hyperthyroidism), and clinically detectable (producing signs and symptoms) hypothyroidism, can both cause heart problems. This is the first study, however, to find a negative effect on heart function when the thyroid was only mildly underactive.

—Dale Kiefer

\* Available at: [http://www.thyroid.org/professionals/publications/news/07\\_10\\_04\\_bauer.html](http://www.thyroid.org/professionals/publications/news/07_10_04_bauer.html). Accessed November 8, 2007.



## Aggressive Dogs May Be Deficient in Omega-3

Deficiencies in the essential fats eicosa-pentaenoic acid (EPA), and especially, docosahexaenoic acid (DHA), which is a crucial component of brain cell membranes, are associated with aggressive behaviors and impulse-control problems in numerous human populations.<sup>1,3</sup> Now, researchers in Italy report, pet owners would do well to consider adding these omega-3 fatty acids to the diets of aggressive dogs, as well.<sup>4</sup>

Given that aggressive behavior is one of the top problems associated with dog ownership, investigators examined omega-3 status in aggressive but otherwise healthy adult dogs. Trouble-free control dogs were also examined. Compared with docile dogs, aggressive canines had a lower concentration of DHA in their blood, and a higher ratio of omega-6:omega-3 fatty acids. The scientists concluded, "Our results suggest that low omega-3 fatty acids may adversely impact behaviour in dogs, resulting in greater propensity to aggression."<sup>4</sup>

—Dale Kiefer

1. Hibbeln JR, Ferguson TA, Blasbalg TL. Omega-3 fatty acid deficiencies in neurodevelopment, aggression and autonomic dysregulation: opportunities for intervention. *Int Rev Psychiatry*. 2006 Apr;18(2):107-18.
2. Garland MR, Hallahan B. Essential fatty acids and their role in conditions characterised by impulsivity. *Int Rev Psychiatry*. 2006 Apr;18(2):99-105.
3. Hamazaki T, Sawazaki S, Itomura M, et al. The effect of docosahexaenoic acid on aggression in young adults. A placebo-controlled double-blind study. *J Clin Invest*. 1996 Feb 15;97(4):1129-33.
4. Re S, Zanoletti M, Emanuele E. Aggressive dogs are characterized by low omega-3 polyunsaturated fatty acid status. *Vet Res Commun*. 2007 Sep 19; [Epub ahead of print].

## Quercetin Lowers Blood Pressure in Clinical Trial

Quercetin helps reduce blood pressure in hypertensive adults, according to a clinical trial published in the *Journal of Nutrition*.\*

Investigators enrolled 19 men and women with pre-hypertension and 22 with stage I (or mild) hypertension in a randomized, double-blind, placebo-controlled, crossover trial. Supplementation with 730 mg of quercetin for 28 days produced statistically significant reductions in blood pressure in those with stage I hypertension. Systolic pressure dropped by an average of 7 mm Hg, while diastolic pressure fell by an average of 5 mm Hg.

"Our study is, to our knowledge, the first to show that quercetin reduces blood pressure in stage I hypertensive individuals," the scientists wrote. "Our data indicate that potential exists for this polyphenolic compound to be used as adjunct therapy in diet/lifestyle interventions to help control blood pressure in hypertensive individuals."

—Dayna Dye

\* Edwards RL, Lyon T, Litwin SE, Rabovsky A, Symons JD, Jalili T. Quercetin reduces blood pressure in hypertensive subjects. *J Nutr*. 2007 Nov;137(11):2405-11.

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