## REGULAR YOGA PRACTICE REDUCES STRESS AND INFLAMMATION

Do experienced yoga practitioners have lower levels of inflammation than novice yoga exercisers? Can the response to an external stressor be reduced by the regular practice of yoga? A study by Kiecolt-Glaser *et al.* ( $\stackrel{2}{=}$ ) attempted to address these very questions.

A total of 25 yoga experts and 25 yoga novices (all women; average age, 41 years) were assessed in 3 randomly assigned 6-hour visits. During the visits, baseline blood and saliva samples were collected, followed by a skin barrier disruption test (a piece of cellophane tape was stripped off the body). Other types of stressors were provided as well; subjects were asked to perform mental arithmetic and undergo a cold pressor test (a foot was immersed in 4°C water for 1 minute). Blood assays measured cortisol (the "stress" hormone) and catecholamine levels, as well as interleukin 6 and C-reactive protein levels (markers ofinflammation). Subjects took questionnaires measuring their levels of anxiety, depression, and positive and negative moods. In one of the sessions, both yoga novices and yoga experts then took a restorative yoga class (using the Iyengar method) and were reevaluated after the class. In the other two visits, subjects were asked to walk on a treadmill at 0.5 mph (to create a similar heart rate to the one achieved during the yoga session) and to watch a neutral video (to allow the yoga session to be contrasted to a session with no activity).

When comparing novice yoga participants with those who were more seasoned, it was found that the experienced practitioners had much lower levels of inflammatory responses. In addition, a single restorative yoga session significantly helped regular yoga participants to manage stress, whereas it had a much lower effect on the novice subjects.

Many studies have examined the relationship between yoga and stress; most have found that the consistent practice of yoga has a powerful effect on reducing stress, anxiety, and depression. Not only were stress and mood evaluated in this study, specific markers of inflammation were quantified as well. Because inflammation is a major health concern and has been shown to have a role in cardiovascular disease, type 2 diabetes, arthritis, Alzheimer disease, obesity, and more, it's important to know that restorative yoga may have a beneficial effect particularly when practiced regularly.