

## **Massage Prior to Cardiac Catheterization Lowers Blood Pressure**

*Alternative Therapies in Health and Medicine, Vol. 9, jan/feb 2003*

A 20-minute massage before cardiac catheterization lowers systolic blood pressure, according to a recent study.

"The Effects of Back Massage Before Diagnostic Cardiac Catheterization" was conducted by Mary Ellen McNamara, R.N., Diann C. Burnham, R.N., Christine Smith, R.N., and Diane L. Carroll, R.N., Ph.D.

Forty-six subjects with an average age of 64.9 years, most of whom were male, were randomly assigned to receive either a 20-minute back massage or 20 minutes of standard care prior to cardiac catheterization.

"Admission to the hospital for a diagnostic cardiac catheterization can be perceived as a threat to one's health," state the study's authors. "The autonomic nervous system arousal, particularly in the sympathetic division, can elicit negative physiological and psychological human responses."

The goal of this study was to determine the effects of a 20-minute back massage on the physiological and psychological responses of the cardiac patients.

Outcome measures were heart rate, heart-rate variability, blood pressure, respiration, peripheral skin temperature, pain perception and psychological state.

Pain perception and psychological state were evaluated by self-report. Subjects used the Profile of Mood States to rate their psychological states, and they rated pain on a visual analog scale, with "no pain" at one end of a line and "pain as bad as ever been experienced" at the other end.

Measurements were taken before the 20-minute intervention, immediately afterward and 10 minutes later.

Results of the study showed that subjects in the back-massage group had significantly lower systolic blood pressure immediately after the massage and 10 minutes later. No difference was found for the other outcomes.

"With a clear indication that back massage is beneficial, healthcare providers need to be taught the techniques of back massage," state the study's authors. "Massage therapists and other qualified providers of massage need to be able to articulate these study results in an effort to gain reimbursement for this human touch intervention."

- Source: Knight Center for Cardiovascular Therapy, Massachusetts General Hospital, Boston, Massachusetts. Authors: Mary Ellen McNamara, R.N., Diann C. Burnham, R.N., Christine Smith, R.N., and Diane L. Carroll, R.N., Ph.D. Originally published in *Alternative Therapies in Health and Medicine*, January/February 2003, Vol. 9, No. 1, pp. 50-57