Purpose/Objectives: To determine the dose effects of relaxation practice on immune responses and describe the types of relaxation techniques preferred and the extent of relaxation practice over 10 months.

Design: Descriptive, prospective, repeated measures.

Setting: An interdisciplinary breast clinic at a university-affiliated comprehensive cancer center in the United States.

Sample: 49 women with newly diagnosed breast cancer and undergoing adjuvant therapy who participated in a stress management intervention.

Methods: Relaxation practice was assessed twice a month for 10 months with immune measurements (e.g., natural killer cell activity; lymphocyte proliferation; interferon [IFN]-γ; interleukin [IL]-2, -4, -6, and -10) at the beginning and end of 10-month practice.

Main Research Variables: Relaxation practice (representing the concepts of stress and adherence), relaxation technique, and immune response.

Findings: After adjusting for covariates, the extent of relaxation practice significantly contributed to the variance of natural killer cell activity, lymphocyte proliferation, IL-4, and IL-10 responses in a positive direction; the higher the relaxation practice, the higher the immune responses. In comparison, IFN-γ, IL-2, and IL-6 responses were not affected. The deep-breathing method was most preferred by participants, followed by progressive relaxation and imagination or visualization. The mean weekly frequency of relaxation practice was 5.29 (SD = 3.35), and the mean duration of relaxation practice was 19.16 (SD = 10.81) minutes per session.

Conclusions: Persistent relaxation practice may have positive effects on multiple immune responses in a dose-dependent manner.

Implications for Nursing: Allowing the choice of preferred techniques and emphasizing the importance of long-term adherence, a relaxation program may need to be routinely offered to women under high stress.