

Myofascial Release Boosts Immune Function in Breast-Cancer Survivors

Myofascial release provided an immediate increase in salivary flow rate among breast-cancer survivors, indicating a parasympathetic effect, according to recent research. This research also showed that myofascial release led to increased immune function among those subjects with a positive attitude toward massage.

The study, "The Influence of Patient Attitude Toward Massage on Pressure and Pain Sensitivity and Immune System after Application of Myofascial Release in Breast Cancer Survivors: A Randomized, Controlled Crossover Study," involved 20 breast-cancer survivors during their first year of treatment, with a mean age of 49 years, plus or minus eight years.

Inclusion criteria were a diagnosis of breast cancer from stage I to IIIA, completion of oncology treatment and moderate to high fatigue as assessed by the Fatigue Piper Scale during the previous week.

Participants were randomly assigned to receive either two sessions of myofascial release or two sessions of a control intervention. For both groups, the two sessions took place at the same time of day and were separated by a period of three weeks.

The control intervention consisted of 40 minutes of education on living a healthy life, including information on nutrition, relaxation and exercise.

Myofascial release was provided by a practitioner with more than five years of experience in manual therapy and more than three years of experience treating breast-cancer survivors. Each session of myofascial release lasted 40 minutes, and the focus was on the neck-and-shoulder area of the subject.

According to researchers, the routine was modeled after the John F. Barnes approach, and it included longitudinal strokes, J stroke, suboccipital pressure, frontalis bone spread and ear pull technique.

Among the main outcome measures for this study were markers of immune function, including salivary flow rate, cortisol and immunoglobulin A (IgA) concentrations, and x-amylase activity. These were

evaluated by analyzing salivary samples obtained before and immediately after each intervention session.

Another key outcome measure was the pressure pain threshold (PPT) of the breast-cancer survivors, defined by researchers as "the minimal amount of pressure where a sensation of pressure first changes to pain." PPT was assessed bilaterally over the cervical spine and temporalis muscle of each subject.

This study also looked at the impact of subject attitude on the above outcome measures, using the Attitudes Toward Massage Scale (ATOM). This scale uses statements ranging from "strongly disagree" to "strongly agree," with a middle option of "neutral," to evaluate whether a subject views massage as healthy and pleasant.

"We found a significant increase in salivary flow rate, not modulated by patient's attitude, and an increase in IgA concentration, influenced by a positive patient attitude relative to the pleasant effects of massage," state the study's authors. "No changes in pressure pain sensitivity were found."

Authors: Carolina Fernández-Lao, Irene Cantarero-Villanueva, Lourdes Díaz-Rodríguez, César Fernández-de-las-Peñas, Carmen Sánchez-Salado and Manuel Arroyo-Morales.

Sources: Department of Physical Therapy, Department of Nursing, Universidad de Granada, Spain; Department of Physical Therapy, Occupational Therapy, Physical Medicine and Rehabilitation, Universidad Rey Juan Carlos, Alcorcón, Spain; and Breast Oncology Unit, Virgen de las Nieves Hospital, Andalusian Health Service, Granada, Spain. Originally published in February 2012 in the *Journal of Manipulative and Physiological Therapeutics*, 35(2), 94-100.