



# Massage Therapy for Patients With Cancer

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Massage therapy is one of the oldest healthcare practices still in current use. Chinese medical texts refer to its use more than 4,000 years ago, and Hippocrates wrote about “rubbing,” the ancient Greek term for massage (Greene, 2000). The foundation of contemporary massage therapy dates back to the mid-18th century. A Swede, Per Henrik Ling, developed it as a system of exercise that was both active and passive. With support from the Swedish government, Ling began to teach these methods at the Royal Central Gymnastic Institute, and these methods, known as “medical gymnastics” and “Swedish movement cure,” eventually became known as Swedish massage (Greene).

Massage therapy was introduced to the United States in the mid-19th century by two New York physicians and was used by a large number of physicians from 1880 to 1910 (Greene, 2000). As technological advances in health care occurred, use of therapeutic massage declined and was essentially abandoned between 1930 and 1940. However, in the 1970s, interest in massage resurfaced, and, today, massage therapy is one of the most widely accepted forms of complementary therapies (Gecsed & Decker, 2001). The National Institutes of Health National Center for Complementary and Alternative Medicine officially recognizes massage as a manual healing method.

Data on the use of massage therapy by patients with cancer are difficult to interpret because massage therapy often is grouped with chiropractic use in many studies. However, researchers suggest that 18%–53% of adult patients with cancer use or have used massage therapy in conjunction with conventional cancer treatment (Kao & Devine, 2000; Morris, Johnson, Homer, & Walts, 2000). Children with cancer also sometimes benefit from massage therapy (Friedman et al., 1997), and it was found to be one of the top three complementary therapies used by people with HIV or AIDS in a study by Sparber et al. (2000).

## Benefits of Massage Therapy

Massage therapy is a methodical form of touch that provides comfort and promotes well-being by applying moving or fixed pres-

sure and movement of the body (Greene, 2000; MacDonald, 1999). Varying degrees of pressure and various techniques are used in the application of massage. Although massage therapy often is used to treat musculoskeletal disorders, it also can be used to treat stress and anxiety, improve mood, induce relaxation, and control pain (MacDonald). Massage also has been found to contribute to patients’ perceptions of “feeling stronger” and fosters the development of a positive relationship with healthcare personnel (Billhult & Dahlberg, 2001).

Few physiological studies of massage have been conducted. In one study, 29 men with HIV or AIDS received one-hour daily massages. Significant increases in the patients’ natural killer cell number, natural killer cell cytotoxicity, and soluble CD8 levels were observed. Major neuroendocrine findings, measured via 24-hour urine analyses, included a significant decrease in cortisol levels and decreased catecholamine levels (Ironson et al., 1996).

Some techniques and methods used in massage therapy are described in Table 1. A licensed massage therapist (LMT) may combine several of these techniques in a single session.

## Massage Therapy and Cancer

Many healthcare providers are not fully aware of the potential benefits of massage or may have concerns about its risks. Consequently, barriers to access are sometimes created. For years, massage therapy has been thought to initiate or accelerate cancer metastases in patients with cancer (Walton, 2000). Likewise, many massage therapists are concerned that massage—or even touch—will release cancer cells from a primary tumor (MacDonald, 1999).

A common myth that many patients and healthcare providers believe is that women with breast cancer who have undergone breast surgery with lymph node dissection cannot receive massage therapy (Chapman & Kennedy, 2000). These women can safely receive massage therapy; however, massage therapy from a LMT with specific training in the massage of patients with breast cancer is recommended. The length, depth, and speed

of the massage must be adjusted for patients receiving breast cancer treatment (Chapman & Kennedy). Also, if the patient has lymphedema secondary to axillary node dissection, specific therapy for lymphedema should be used as a separate modality or treatment.

Another concern is that massage therapy will promote cancer metastases. Metastases occur in three stages. Cancer cells are shed from the primary tumor, these cells travel via the blood or lymph channels, and the cells then settle in a secondary site. Theoretically, massage therapy applied locally and with sufficient intensity could aggravate cell shedding, especially if applied to a superficial tumor (Curties, 2000).

Leaders in massage therapy are developing new guidelines that will outline the educational preparation, clinical skills, and critical thinking needed to work with patients with cancer (Walton, 2000). Despite this, many massage therapists still rely on a physician’s order or note that contains directions for the therapy and permission to treat patients with cancer. The factors that a massage therapist considers in determining what technique can be used safely and effectively for a patient with cancer are tumor location, cancer stage, and location of any metastatic site(s). Walton reported that having knowledge about cancer and metastatic patterns is very important for a massage therapist treating a patient with cancer. LMTs need to know to avoid local and regional pressure in the area of the tumor and that the cause of any pain or discomfort must be determined before massage therapy may resume. LMTs also must have an understanding of the types of cancer treatment and potential side effects before beginning a treatment session (Walton).

## Massage Therapy After Surgery

Cancer surgery may result in thrombosis, infection, adhesions, lymphedema, and reduced functioning that may require adaptation or delay

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**TABLE 1. TECHNIQUES AND METHODS USED IN MASSAGE THERAPY**

TECHNIQUE	DESCRIPTION
Swedish massage	Uses long strokes on the superficial layers of the muscles to promote relaxation and relieve muscle tension
Deep tissue massage	Uses slow strokes and direct pressure to relieve chronic muscle tension
Sports massage	Combines Swedish and deep tissue massages to relieve effects of athletic training
Neuromuscular massage	Deep tissue massage applied to individual muscles to release trigger points or localized tender spots
Acupressure	Finger and thumb pressure used on specific points on the meridian
Shiatsu	Japanese acupressure
Manual lymph drainage	Uses light rhythmic strokes to improve lymph flow
Craniosacral	The bones of the cranium and spine are manipulated to correct cranial and spinal imbalances.

*Note.* Based on information from Greene, 2000; McDonald, 1999.

of a massage therapy session. For example, if the patient is at risk for developing a thrombus, local and regional massage is contraindicated. Massaging the lower extremities also is contraindicated immediately postoperatively.

Lymphedema may occur following lymph node dissection. Swedish massage, or any general massage technique using pressure, may worsen existing lymphedema. Specific lymphatic drainage therapies can relieve edema, fibrosis, pain, and discomfort; only LMTs who have had been specially trained in these therapies should apply these techniques (MacDonald, 1999). The Vodder Manual Lymphatic Drainage technique is one therapy commonly used in the United States. It uses gentle, rhythmic pumping movements, and appropriate bandaging, compression garments, exercise, and skin care can be used in conjunction with this method to maximize results. Treatment of lymphedema usually is ongoing; however, the frequency of the sessions may be reduced as the lymphedema and its symptoms respond to treatment (MacDonald).

The application of appropriate massage technique may promote healing at incision sites and may prevent or reduce scarring (Curties, 2000). LMTs must have special training in scar massage and should discuss massage techniques with a patient's surgeon before massaging a scar. Generalized massage is contraindicated in patients with signs or symptoms of infection at the incision site. If an infection is suspected, the LMT must immediately refer the patient to the physician.

### Massage in Conjunction With Radiation Therapy

Patients undergoing radiation therapy often experience skin changes that include redness, dryness, and irritation. Massage therapy techniques should not be applied

within a radiation treatment field because massage has the potential to further irritate irradiated skin (MacDonald, 1999).

### Massage Therapy and Chemotherapy

During chemotherapy, patients with cancer often are at risk of infection, anemia, bleeding, and bruising from immunosuppression. LMTs must take special precautions in massaging potential or existing skin breakdown areas, and massage sometimes must be avoided in these areas. LMTs also must adjust the amount of pressure and occasionally delay massage sessions for patients who are at risk for thrombocytopenia-induced bruising.

Massage therapy movements that create a rocking motion may be contraindicated for patients with nausea or vomiting, as these motions may induce or worsen these symptoms (MacDonald 1999; Walton, 2000). The use of any type of deep pressure massage is contraindicated in patients with peripheral neuropathy. LMTs must avoid focused pressure on areas affected by neuropathies, using a gentler, whole-hand approach instead.

### Massage Therapy for Pain Control

The American Pain Society (1999) defined pain as a "subjective, unpleasant sensory and emotional experience that is associated with actual or potential tissue damage" (p. 3). For patients with cancer, pain is the most feared symptom (Agency for Health Care Policy and Research, 1994). Chronic pain is reported by 30%–60% of patients with cancer during treatment, and the prevalence of pain in patients with advanced disease may be as high as 90% (Portnoy, 2000).

Ferrell-Torry and Glick (1993) examined

the effects of therapeutic massage on pain perception in nine hospitalized patients with cancer pain. They reported that massage therapy reduced pain perception by an average of 60%, as well as decreased anxiety by 24%, while enhancing feelings of relaxation by 58%. In addition to these subjective measures, all physiological measures (heart and respiratory rates and blood pressure) also decreased from baseline levels.

In another study, 52 patients with cancer were randomized into either a control or an experimental group. On the first day of the two-day study, both groups had a volunteer sit with them for 15 minutes without physically touching them. On the second day, the experimental group received 15 minutes of massage to the hands, feet, shoulders, and neck. The control group again had a volunteer sit with them for 15 minutes without physically touching them. Massage therapy was found to have a significant decrease on the pain and anxiety levels of patients in the experimental group, while the control group had no change (King, 2000).

In a study conducted in Australia, a 10-minute foot massage (five minutes on each foot) was given to 87 patients hospitalized with cancer. The foot massage was found to have a significant and immediate positive effect on the patients' perceptions of pain, nausea, and relaxation as measured by a visual analog scale (Grealish, Lomasney, & Whiteman, 2000).

### Advice for Patients Seeking a Massage Therapist

Patients with cancer who seek massage therapy should be advised to obtain information about the massage therapist's education and credentials. They should be encouraged to only use the services of a massage therapist who

- Graduated from an accredited program (one that requires a minimum of 500 hours of classroom training and meets standards set forth by the Commission on Massage Therapy and Accreditation). A list of accredited training programs is available online at <http://www.comta.org/trainprog.htm>.
- Holds a current state license in massage therapy (available in 30 states and the District of Columbia) (see Figure 1)
- Is certified by the National Certification Board for Therapeutic Massage and Bodywork
- Is a member of a professional association, such as the American Massage Therapy Association ([www.amtamassage.org](http://www.amtamassage.org)) (Greene 2000).

A massage session typically lasts 30–60 minutes. The frequency of the sessions depends on the patient's current health status,



including the type of cancer, specific treatment, type and severity of side effects, comorbid medical disorders or diseases, and pain assessment. Although medical insurance may cover specific therapeutic massage, it is not usually a reimbursed service. The average cost for an LMT's one-hour session is \$45–\$70 (Gecsed & Decker, 2001).

## Summary

Patients with cancer often use massage therapy as an adjunct treatment. Oncology nurses can be advocates for patients seeking massage therapy by educating them to be informed consumers of massage therapy. They can stress that patients with cancer use massage therapists who have graduated from accredited programs, meet state licensure requirements, and have specialized training in the massage of patients with cancer.

Oncology nurses often are the link between the physician ordering or approving this therapy and the LMT delivering the therapy.

Alabama	New Mexico
Arkansas	New York
Connecticut	North Carolina
Delaware	North Dakota
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Louisiana	Tennessee
Maine	Texas
Maryland	Utah
Mississippi	Virginia
Missouri	Washington
Nebraska	West Virginia
New Hampshire	Wisconsin
New Jersey	

### FIGURE 1. STATES REQUIRING LICENSURE FOR PRACTICE AS A MESSAGE THERAPIST

Note. Based on information from the American Massage Therapy Association, 2001.

LMTs need information about a patient's cancer diagnosis, comorbidities, type of treatment, and response to treatment to safely provide massage therapy. Nurses play an important role in conveying this information and informing LMTs about any special considerations, such as the presence of neutropenia or thrombocytopenia. Safe and effective massage therapy to patients with cancer only is achieved when the patient, healthcare providers, and LMT collaborate effectively.

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