



Integrative Medicine



Soothing Treatments

Touch therapies such as reflexology and shiatsu can often ease common symptoms of cancer treatment, including pain, anxiety, and fatigue.

Our integrative medicine services complement mainstream cancer care. We offer touch therapy, mind-body therapy, acupuncture, creative therapy, and nutrition counseling, as well as exercise programs to improve strength and promote relaxation. Our services are available to anyone receiving cancer care, whether at Memorial Sloan Kettering or elsewhere, and to the general public as a whole.

Upcoming Classes & Workshops

[Download our latest schedule »](#)

Our Expertise



Memorial Sloan Kettering's
Integrative Medicine Service

The Integrative Medicine Service at Memorial Sloan Kettering provides a comprehensive support system for patients at every stage of cancer treatment and level of clinical status. Integrative medicine uses evidenced-based complementary interventions to optimize the receipt of mainstream care by controlling the serious physical and emotional symptoms often experienced by patients before, during, and after therapy.

Our senior faculty are world-renowned lecturers in the practice of integrative oncology. As principal investigators, they study the value of complementary therapies for specific problems, train physicians and therapists from many countries, and provide patient consultations. Our expert team can guide patients to make effective decisions about the most helpful integrative therapies throughout their treatment program and beyond.

■ Integrative Medicine Senior Faculty

- [Gary E. Deng, MD, PhD](#)
Interim Chief, Integrative Medicine Service
- [Barrie R. Cassileth, PhD](#)
Laurance S. Rockefeller Chair in Integrative Medicine
- [Andrew Vickers, PhD](#)
- [K. Simon Yeung, PharmD, MBA, LAc](#)

■ Our Approach

The guiding principle at Memorial Sloan Kettering is to offer individuals with cancer the most-effective treatment and the highest quality of care. Through our Integrative Medicine Service, certified therapists who are highly skilled and specially trained in oncology provide a range of rational, evidenced-based complementary therapies. They excel in symptom management skills and are highly sensitive to patient and family needs.

There are several main categories of integrative or complementary therapies offered at Memorial Sloan Kettering:

- *Physical fitness and movement therapies*

To improve strength, stamina, and endurance; promote relaxation and relieve pain, muscle tension and weakness; and alleviate fatigue, anxiety, depression, and stress. Evidenced-based studies show a survival advantage for many patients with cancer who engage in regular physical activity after diagnosis.

- *Acupuncture*

To address chemotherapy-induced nausea and vomiting, nerve and joint pain, hot flashes, dry mouth, headache, fatigue, procedural anxiety, depression, insomnia, stress, appetite loss, diarrhea, constipation, weight gain and loss, and lifestyle changes such as smoking cessation. Recent research also shows that acupuncture may be effective in managing swallowing difficulties and swelling such as lymphedema.

- *Massage/touch therapies*

To relieve pain, muscle tension, postoperative symptoms, musculoskeletal problems, anxiety, depression, insomnia, stress, and fatigue. Massage has been shown to reduce symptom scores in patients with cancer by approximately 50 percent, with benefits sustained over a 48-hour period.

- *Mind/body therapies such as meditation and self-hypnosis*

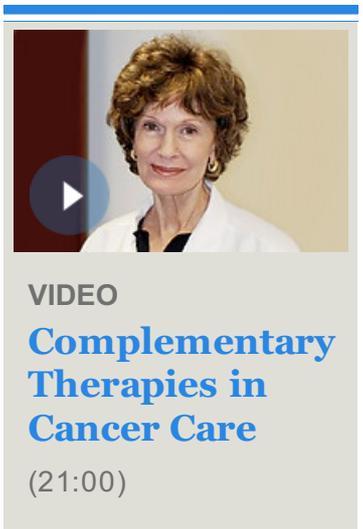
To address depression, procedural anxiety, fatigue, insomnia, stress, nausea, weight gain and loss, pain, muscle tension, and facilitate lifestyle changes. Regular practice of mind-body therapies has been shown to produce and sustain benefit.

- *Music therapy*

To facilitate recovery and promote general well-being. Music therapy is provided by trained therapists adept in dealing with the psychosocial and clinical issues faced by patients and family members. This modality can be receptive or participatory and is particularly effective in palliative care and inpatient settings.

- *Nutritional counseling*

To guide patients to better health through expert advice on nutrition, weight management, and individual concerns using scientifically based recommendations. Health literacy for the cancer patient is of critical importance, especially regarding the issues of herbs/supplements – drug interactions that may reduce the effectiveness of chemotherapy or interfere with surgery or radiation therapy. In addition, the Integrative Medicine Service provides free access to objective information on dietary supplements and unproven cancer treatments and their effects in the context of cancer care through our award-winning website, [About Herbs, Botanicals, and Other Products](#).



You do not need to be a Memorial Sloan Kettering patient or family member to take advantage of integrative medicine services. Even if you are not ill or a cancer survivor, the therapies we offer can help increase self-awareness, enhance well-being, manage symptoms such as osteoporosis and anxiety, facilitate lasting lifestyle changes, and prevent health-related problems. Our [outpatient center](#) is open to anyone, including Memorial Sloan Kettering patients and their family members, those receiving cancer care elsewhere, and members of the community. Individuals who are uncertain of which services may benefit them can meet with one of our senior clinicians free of charge to learn more by contacting the center to [make an appointment](#).

■ Integrative Medicine Clinicians

Donna Wilson, RN, MSN, RRT

Co-Manager, Fitness & Yoga

Master Yang Yang, PhD

T'ai Chi/Qi Gong Program

Wendy Miner, LMT

Manager, Touch Therapies; Co-Manager Fitness & Yoga

Yi Hung Chan, DPM, LAc

Co-Manager, Acupuncture Services

Lily Zhang, PT, DPT, LAc, LANA-CLT, WCC

Co-Manager, Acupuncture Services

Robert Schmehr, LCSW

Manager, Mind-Body Therapies

Karen Popkin, MA, LCAT, HPMT, MT-BC

Manager, Music Therapy Program

Donald Garrity, RD, CDN

Manager, Nutritional Counseling

Therapies, Classes & Workshops



Nurse Donna Wilson leads a yoga class. The Integrative Medicine Services offers a wide range of exercise programs to help you feel stronger and more relaxed.

Individual Therapies

The Integrative Medicine Service offers touch therapies, mind-body therapies, acupuncture, creative therapies, physical activity and fitness classes, and nutrition counseling.

Group Class Schedule & Descriptions

The Integrative Medicine Service offers exercise programs to improve strength and endurance, and to promote relaxation.

Workshops & Educational Programs

The Integrative Medicine Service offers educational programs for patients, caregivers, and healthcare professionals.

At-Home Tools

Memorial Sloan Kettering's Integrative Medicine Service offers resources for you to use at home — at your convenience — to enhance your well-being before, during, and after treatment for cancer.

Individual Therapies

The Integrative Medicine Service offers acupuncture, group fitness classes, nutrition and dietary supplement counseling, touch therapies, mind-body therapies, creative therapies, and personal training.

You do not have to be a patient at Memorial Sloan Kettering to make an appointment. Patients may also meet with one of our physicians to consult on which integrative medicine therapies would be most beneficial.

For appointments please call 646-888-0800. All of our therapies are provided at the [Bendheim Integrative Medicine Center](#). Some are also available at the [Evelyn H. Lauder Breast Center](#) and at the [Brooklyn Infusion Center](#).

■ Acupuncture

Acupuncture is a safe, painless, and effective form of traditional Chinese medicine. Disposable, ultra-thin needles are applied to specific points on the body to stimulate the nervous system to release certain chemicals in the brain. The improved energy and balance stimulate the body's natural healing abilities, relieve many physical ailments, promote physical and emotional well-being, and assist with lifestyle issues such as smoking cessation and weight loss.

Symptoms commonly treated with acupuncture include pain, muscle tension, neuropathy, dry mouth, headache, musculoskeletal problems, fatigue, anxiety, depression, insomnia, stress, lack of appetite, nausea, diarrhea, constipation, weight gain and loss, swelling, hot flashes, and surgery-related arm and leg lymphedema.

Sessions are now also available at the [Brooklyn Infusion Center](#).

Fees for Acupuncture

Individual first session	\$125
Follow-up session	\$100
Well-Being Passport* (ten sessions)	\$900
Community acupuncture visit	\$50

* A Well-Being Passport may be used for any individual therapy normally priced \$100.

Community Acupuncture

Enjoy the benefits of acupuncture at a lower cost by enrolling in a small group session. You will be among a maximum of six people treated by one of Integrative Medicine's senior acupuncturists. Sessions are now also available at the Brooklyn Infusion Center. One private session with one of Integrative Medicine's acupuncturists is required prior to joining a Community session.

At-Home Tools

Memorial Sloan Kettering's Integrative Medicine Service offers resources for you to use at home — at your convenience — to enhance your well-being before, during, and after treatment for cancer.

[Learn more »](#)

Restorative Facial Acupuncture

This therapy uses gentle, pain-free acupuncture and acupressure techniques to help you look better and feel great. Facial acupuncture may improve skin tone and appearance, and minimize fine lines.

■ Creative Therapies for Inpatients (No Charge)

Music Therapy

Music therapy uses music to encourage healing and promote a general sense of well-being. Under the guidance of a professionally trained music therapist, patients listen to or perform music, which enhances relaxation, creativity, pleasure, and self-expression and helps reduce pain and feelings of isolation.

■ Education

Frequent workshops and lectures are available to patients, their families, and members of the community. Please call 646-888-0800 for more information.

■ Mind-Body Therapies

Mind-body therapies are often used to combat symptoms such as depression, anxiety, fatigue, insomnia, stress, nausea, weight gain and loss, pain, muscle tension, and headache.

The rate for individual mind-body therapies is \$100; for a package of ten, \$900. Therapies are customized to fit the needs of all patients and families regardless of clinical status.

Individual session	\$100
Mind-Body Passport* (ten sessions)	\$900
Group session for couples, family, and loved ones	\$120
Mindfulness Practice Group	\$20

*A Passport to Mind-Body Therapies may be used for any individual therapy normally priced \$100.

Meditation

Meditation teaches us to calm our minds and to be more present in every moment of our lives. This can lead to powerful reductions in stress, anxiety, and depression. Meditation and guided imagery can alleviate pain, as well as other symptoms. Through meditation, we can reconnect with our unique inner strengths, which can be strong allies during times of illness or stress.

Mind-Body Therapy for Couples, Families, and Loved Ones

Meditation, self-hypnosis, and guided imagery are performed alongside a loved one, providing support to both patients and caregivers.

Hypnotherapy

The practice of self-hypnosis is taught, allowing you to harness your own innate and powerful resources and to master the art and science of self-regulation. Benefits include relaxation, reduced pain, improved sleep, improved digestion, and desired behavior change.

Pre-Surgical Self-Hypnosis

Learn practical techniques to manage pre-surgical anxiety, post-operative pain, fatigue, or depression, and to facilitate your return to normal functioning. The session includes an audio CD to support your practice

at home.

Self-Hypnosis for Weight Loss

Self-hypnosis for weight loss is a specially designed program to help you lose weight easily and without dieting. The program is creative, fun and empowering.

Mindfulness Practice Group

This weekly group focuses on the practices of mindfulness meditation, the foundation of all meditation traditions. While mindfulness meditation is simple to learn, its benefits are profound and long lasting. A brief conversation with the group leader is required prior to participating, and can be arranged with the front desk. Space is limited. Pre-registration is encouraged, and one individual session with the group leader is required prior to participating.

■ **Nutrition**

Nutrition counseling can help you to improve your health through dietary changes. Integrative Medicine nutritionists also specialize in helping patients with questions related to dietary supplements, vitamins, and herb-prescription drug interactions.

Fees for Nutrition Counseling

Nutrition and Supplement (30-minute)	\$50
Nutrition and Supplement (one-hour)	\$100
Focus on Supplements (30-minute)	\$50
Mind-Body Nutrition (90-minute)	\$145
Nutrition and Cancer Basics (one-hour)	Free

Nutrition and Supplement Counseling

Individual or family sessions offer scientifically based diet and nutrition recommendations for disease prevention. We also offer expert advice on the appropriate use of dietary supplements for disease prevention as well as during treatment. Phone consultations are available.

Focus on Supplements

This 30-minute session discusses the pros and cons of over-the-counter dietary supplements, including the possibility of interactions with various medications. Guidelines will be provided for the safe use of supplements, both for disease prevention and for those undergoing treatment. Phone consultations are available.

Mind-Body Nutrition Counseling

Learn an effective weight-management strategy that combines nutritional counseling and cutting-edge mind-body therapy. In a half-hour session with a nutrition counselor and full-hour session with a mind-body therapist, you will acquire the tools and information to help you achieve your weight-management goals. Note: It may not be possible to schedule both sessions for the same day.

Nutrition and Cancer Basics

This free, one-hour class provides dietary guidance for disease prevention and for those undergoing treatment. In 2014, this group will meet on Tuesday, January 11 and Tuesday, March 14. Please call 646-888-0800 to register. Visit [About Herbs, Botanicals & Other Products](#), our free online resource for both patients and healthcare professionals, to learn more about herbs, botanicals, and vitamins.

■ Physical Activity & Fitness

Exercise programs can improve strength and endurance while promoting relaxation. Physical fitness also helps relieve pain, muscle tension, weakness, fatigue, anxiety, depression, and stress. [Click here to see our group class offerings.](#)

Fees for Physical Activity & Fitness

Group exercise classes	\$20
Personal training (30-minute)	\$45
Personal training (one-hour)	\$90
Fitness Passport (ten one-hour personal training sessions)	\$810

Physician Consultations

Complimentary consultations with one of our

Integrative Medicine physicians are available weekdays at the following locations:

- [Rockefeller Outpatient Pavilion](#)
- [Evelyn H. Lauder Breast Center](#)
- [Sidney Kimmel Center](#)

Dance Movement Therapy (Available to Pediatric Inpatients Only)

Dance movement therapy is a multi-sensory approach that helps patients express their experiences of their illness. Using the tools of movement, dance, music, body awareness, relaxation, and meditation/visualizations, patients explore their feelings and share their concerns. Through experiential activities, patients learn to manage pain and other symptoms, improve self-esteem and body image, develop effective communication skills in their relationships, and create new options for coping with their illness.

■ Touch Therapies

Symptoms commonly treated with touch therapies include pain, muscle tension, post-operative discomfort, musculoskeletal problems, anxiety, depression, insomnia, stress, and fatigue.

Individual session	\$110
Individual session with senior therapist	\$120
Kinesio Taping (30-minute)	\$55
Kinesio Taping (one-hour)	\$110
Well-Being Passport* (ten sessions)	\$1,000
Well-Being Passport with senior therapist	\$1,100

Aromatherapy Massage

Aromatherapy massage includes the use of aromatic plant extracts and authentic essential oils to affect mood and promote health. A very popular stress reliever, it is used to restore balance throughout the body.

Kinesio Taping

Speed recovery from muscular and fascial ailments including strains, sprains, and tendinitis. Your session begins with a 15 minute concentrated massage of the area(s) to be treated, after which a painless,

waterproof tape is applied by a certified KT practitioner (CKTP).

Manual Lymph Drainage (MLD)

MLD, now offered at the Bendheim Integrative Medicine Center and the integrative medicine suite at the Evelyn H. Lauder Breast Center, is an important part of complete decongestive therapy for patients at risk for lymphedema or with symptoms such as heaviness or discomfort following lymph node dissection during cancer surgery. MLD is a gentle, noninvasive massage technique that directs excessive lymph fluid away from affected areas toward regions of the body that can support drainage. This therapy can reduce the pain and discomfort of lymphedema while promoting relaxation.

Medical Qi Gong Therapy

The oldest therapeutic modality of Chinese medicine, medical Qi Gong integrates focused attention, movement, breathing techniques, and gentle touch therapy that follows the body's meridian map. Benefits include increased well-being, stress reduction, and management of symptoms such as pain, fatigue, nausea, and headache.

Pregnancy Massage

Pregnancy massage is relaxing and restorative. Through the application of specific techniques that include positioning and support, this special, gentle massage relieves stress and soothes tight and aching muscles.

Reflexology

Reflexology is the ancient practice of applying pressure to specific parts of the feet, hands, and ears. A reflexology treatment is deeply relaxing and helps to reduce stress, relieve pain, increase circulation, and enhance well-being. It's perfect for the busy person on the go.

Reiki

Reiki promotes the healing of physical and emotional ailments through gentle touch. Reiki therapists use light pressure techniques to restore harmony and provide deep relaxation and a sense of clarity.

Repetitive Stress Injury Massage

This type of massage addresses work- and sports-related injuries such as carpal tunnel syndrome, “mouse shoulder,” and “tennis elbow.” In this individual, customized session, various massage techniques are used to relieve areas of pain, restriction of movement, and tension. Our therapists also make recommendations to help clients improve ergonomics when sitting at the computer, playing sports, or performing other repetitive tasks.

Shiatsu

Shiatsu, a type of massage developed in Japan, uses hand pressure and stretching techniques to promote balance and to quiet and center the mind. Depending on the client's clinical status, our therapists may perform Shiatsu on the floor or on a massage table. Please wear loose-fitting, comfortable clothing..

Swedish Massage

Swedish massage is the most popular type of massage in the United States. It involves the therapeutic manipulation of muscles with a variety of hand movements to relieve muscular tension, stimulate circulation, and induce feelings of deep relaxation and tranquility.

Group Class Schedule & Descriptions



A fitness class lead by Donna Wilson, RN

The Integrative Medicine Service offers a wide range of exercise programs to improve strength, increase endurance, and promote relaxation. Classes are available in both group and private settings. Everyone is welcome.

To schedule a private session or to join a group class, please call 646-888-0800.

■ Registration Fees

- Single private session
- Package of ten private sessions

- Single group class
- Package of ten group classes

- Community acupuncture initial visit
- Community acupuncture follow-up visit

- \$90
- \$810

- \$20
- \$180

- \$55
- \$40

- Community Acupuncture
- Community Acupuncture
- Community Acupuncture

- Focused Fitness for Women*
- T'ai Chi/Qi Gong
- Community Acupuncture†
- Empowering Yoga

at the [Evelyn H. Lauder Breast Center](#)

†This Community Acupuncture session is located at the [Brooklyn Infusion Center](#)

Thursday

- Focused Fitness for Women 9:00-10:00
- Strong Bones & Muscular Health 10:00-11:00
- Chair Aerobics 11:15-12:15
- Mindfulness Practice Group* 12:30-1:30
- Just Breathe (first Thursday of each month only) 3:00-4:00

*Participants in the Mindfulness Practice Group are required to have an individual session with the group

Current Schedule of Classes

[Download a pdf of the current schedule.](#)

- Monday**
- Tuesday**
- Wednesday**

- [*Focused Fitness for Women classes are located Focused Fitness for Women](#)
- [Strong Bones & Muscular Health](#)
- [Chair Aerobics](#)
- [T-Tapp: The Wellness Workout](#)

- 9:00-10:00
- 10:00-11:00
- 11:15-12:15
- 5:30-6:30

- 3:00-3:45
- 4:00-4:45
- 5:00-5:45

- 9:30-10:30
- 9:30-10:30
- 11:30-12:30
- 6:00-7:00

leader before joining. Space is limited, and pre-registration is encouraged.

Friday

Community Acupuncture	9:30-10:15
Community Acupuncture	10:30-11:15
Community Acupuncture†	11:30-12:30
Community Acupuncture	11:30-12:15
Community Acupuncture	12:30-1:15
Community Acupuncture	2:00-2:45
Community Acupuncture	3:00-3:45

†This Community Acupuncture session is located at the [Brooklyn Infusion Center](#)

Saturday

Community Acupuncture	9:30-10:15
Community Acupuncture	10:30-11:15

Due to limits on class size, please call 646-888-0800 to ensure your space. It may not be possible to accommodate walk-ins if classes are full. If these times do not meet your needs, please call us with suggestions for additional classes.

Fitness classes are open to all levels.

■ Full Listing of Class Offerings

Chair Aerobics

Chair Aerobics is a fitness program to assist those who are recovering from medical treatment or for those whose participation in other programs is limited by physical condition, restricted mobility, or age. This small class helps decrease breathlessness and fatigue, control panic, improve muscle tone and flexibility, and increase endurance for everyday activities.

Community Acupuncture

Enjoy the benefits of acupuncture at a lower cost by enrolling in a small group session. You will be among a maximum of six people treated by one of Integrative Medicine's senior acupuncturists. The treatment, which will be performed with your clothes on, lasts 40 to 45 minutes.

Empowering Yoga

Empowering Yoga works to improve strength and flexibility. The mix of yoga positions and transitions opens the heart, challenges the core, strengthens the legs, and revitalizes the body for active living.

Focused Fitness for Women

Focused Fitness for Women is an exercise program for patients who have undergone breast cancer surgery and lymph node dissection. These exercises help reduce the risk of lymphedema and “frozen shoulder,” improving range of motion and enhancing physical and psychological well-being for women at all fitness levels.

Just Breathe

Just Breathe focuses on taking deep breaths, the quickest way to decrease stress and to engage the mind and body in a relaxation response. Classes are held on the first Thursday of the month.

Mindfulness Practice Group

This weekly group focuses on the practices of mindfulness meditation, the foundation of all meditation traditions. While mindfulness meditation is simple to learn, its benefits are profound and long lasting. A brief conversation with the group leader is required prior to participating, and can be arranged with the front desk. *Space is limited; pre-registration is encouraged.*

Pilates Mat

Pilates increases strength, flexibility, mind/body connection, postural awareness, core stability, and proper use of abdominal muscles. It reduces back pain and stress. The Magic Circle, balls, resistance bands, and weights are used. *Private session only, \$90; currently not offered as a class.*

Strong Bones & Muscular Health

Strong Bones & Muscular Health is an exercise program for those who have osteoporosis or are at risk of developing it. Exercise helps to maintain bone density and stimulate bone growth. This class uses walking, aerobics, and balance and weight training to strengthen bones.

Tai Chi/Qi Gong

Qi Gong combines movement and meditation, and can be practiced by individuals of any age or fitness level. Regular practice of Qi Gong can reduce stress, increase stamina and balance, improve sleep, and instill a sense of harmony.

T-Tapp: The Wellness Workout

Improve your posture and lose inches with this rehabilitative approach to fitness. T-Tapp tightens, tones, strengthens, stretches, and energizes your body as it works five to seven muscles simultaneously. It also improves body alignment through strength training, isometrics, balance training, and flexibility exercises.

Workshops & Educational Programs

Memorial Sloan Kettering offers programs for patients, caregivers, and professionals that present a broad range of information about complementary medicine as well as the issues surrounding so-called alternative medicine. Our programs include discussions about herbs and other over-the-counter remedies, herb-drug interactions, and toxicities associated with purported therapies not scientifically proven to be effective against cancer.

We also offer training programs for licensed massage therapists, reflexologists, and acupuncturists, as well as for family members who desire to learn how to provide safe and gentle massage to patients.

For the healthcare professional, we offer visiting professorships and graduate student internships. For more information about these programs, please e-mail IntegMedTraining@mskcc.org.

Upcoming Workshops

Friday, October 17, 2014

WORKSHOP



Professional Online Programs

Memorial Sloan Kettering Cancer Center's Integrative Medicine Service offers a number of Web-based continuing education programs for healthcare professionals to promote the safe and effective delivery of complementary therapies for cancer patients.

Our training modules give you access to the latest integrative oncology guidelines, as well as lectures and demonstrations by leaders in the fields of oncology and integrative medicine. The online format allows you to move through the course at your own pace, wherever and whenever your schedule permits. You will have the opportunity to e-mail us with suggestions, questions, or concerns about the material presented in the course.

We offer the following online courses in integrative medicine:

Showing 11 courses

Acupuncture for the Cancer Patient

This program provides acupuncturists with a basic understanding of integrative oncology.

Acupuntura para el Paciente con Cáncer

Este programa le otorga a los acupunturistas un entendimiento básico de la oncología integrativa.

Advanced Acupuncture for the Cancer Patient

This program provides acupuncturists with an advanced understanding of integrative oncology.

Ethics for the Cancer Patient

Designed for complementary practitioners and other therapists, this course addresses important issues regarding ethics in cancer care.

Herbs and Other Dietary Supplements in Cancer Care

For TCM practitioners and other therapists, this course addresses important issues regarding herbal medicines and cancer treatment.

Integrative Oncology for Physicians

This program provides physicians with a basic understanding of integrative oncology.

Medical Massage for the Cancer Patient I

This program provides massage therapists with a basic understanding of integrative oncology.

Medical Massage for the Cancer Patient II

This program presents oncology massage therapy from a more thorough perspective.

Music Therapy for the Cancer Patient

This course teaches music therapists to deliver safe and effective therapy to cancer patients and their families.

Safety for the Cancer Patient

This course teaches the latest methods in the management and control of infection to licensed or certified acupuncturists.

Yoga for the Cancer Patient

This program offers licensed yoga instructors with evidenced-based medical training to safely and effectively provide yoga therapy to cancer patients in both one-on-one sessions and group classes.

Integrative Oncology Physician Training

The Memorial Sloan Kettering Cancer Center Integrative Oncology Physician Training Program is designed to train physicians in integrative oncology practices and research, to prepare trainees for successful academic careers in integrative oncology, and to develop future leaders in this emerging field.

■ Summary

- Goal: To train physicians for an academic career in integrative oncology
- Trainees: Board-certified internists are preferred, but other physicians who have completed at least one year of postgraduate medical training in an accredited residency program will be considered
- Length of visit: Six to 12 months
- Mentors: Faculty members of Memorial Sloan Kettering's Integrative Medicine Service
- Curriculum: Didactic sessions, core reading list, critical review and presentation of literature, participation in clinical research, clinical service under supervision, Grand Rounds attendance, and meetings and other activities in the Service and in other relevant services throughout the institution
- Evaluation: Progress report and discussion with mentors every two months; final evaluation at the end of the six- or 12-month training period
- Certification: Trainee will receive a certificate attesting to his or her satisfactory completion of the training program

■ Curriculum

The curriculum consists of the basic components outlined above.

A core reading list is prepared to provide the trainee with fundamental knowledge of the following subjects:

- Overview of current cancer treatments, their benefits and limitations
- Concept of integrative medicine and integrative oncology
- Use of complementary therapies by cancer patients, including their reasoning and expectations
- Theories and practice of common complementary therapies
- Botanical agents, and preclinical and clinical studies of their applications in cancer care
- Clinical approach to patients seeking integrative oncology services
- Symptoms that may be successfully managed with complementary therapies
- Clinical research methodology

- Review of the current state of science and evidence-based practice guidelines
- Ethics and legal issues associated with integrative oncology

The didactic courses lay the foundation of trainees' knowledge base in integrative oncology. Mentors will guide the didactic component of the program on the subjects listed above. Trainees are expected to demonstrate thorough understanding of all subject matter and to engage in in-depth discussion with the mentors. Trainees will meet with practitioners/therapists in the Integrative Medicine Service to learn the basic principles and practices of acupuncture, mind-body techniques, massage therapies, and other interventions.

Trainees will participate in a selected institutional seminar series. Although many seminars are open to trainees, the Integrative Medicine Research Meeting (biweekly) and the Department of Medicine Grand Rounds (weekly) are required. Trainees will also attend the Palliative Medicine clinical conferences and rounds, the [President's Research Seminar Series](#), and activities of other relevant services. Participation in such seminars will broaden trainees' knowledge of cancer care and research. The seminars will also present cutting-edge science conducted by experts in the field.

Once a month, trainees will select a recent research paper reporting a significant advancement in integrative medicine and present it at the Integrative Medicine Research Meeting in journal club fashion. Trainees are expected to critically evaluate the objectives, design, findings, and significance during the presentation, and to stimulate thought-provoking discussions. This practice will prepare trainees for future critical review of manuscripts, proposals, research protocols, and grant applications.

Trainees will spend two days a week shadowing and assisting attending physicians as they work with integrative medicine patients in the outpatient clinic located on East 53rd Street, in Manhattan. Trainees will observe and learn to identify patients' needs and put those needs in the proper psychosocial context of the particular patient, gain patients' trust and respect quickly, carry out an open and evidence-based communication, discuss patients' specific questions, formulate a treatment plan that addresses patients' specific and global medical problems, inspire and motivate patients to carry out the plan, and partner with patients to bring about lasting change. Toward the end of the training period, trainees should have developed the ability to provide independent clinical service and achieve the best possible clinical outcome and patient satisfaction.

Research training will be provided on a daily basis, including participation in Integrative Medicine Service research projects that are under way or in development. Attending all Integrative Medicine Service research meetings provides exposure to the full research spectrum, including the generation of ideas and the development, protocols, and problem solving essential to the research environment. Trainees are expected to demonstrate the ability to identify meaningful research questions, generate innovative ideas, formulate a sound research plan, defend it against criticism, and troubleshoot any existing or potential problems that arise.

■ **Timeline**

Trainees will spend the first two weeks of the program getting oriented to the Service and the Institution. Work on the core reading list and the didactic sessions will start no later than the third week. After two months, trainees are expected to be fully integrated into and capable of contributing to the daily operation of the Service's clinical and research activities. A midterm evaluation will occur after three months for six-month trainees and after six months for one-year trainees. Trainees will be given increasing

responsibility for research activities, including project development and the initiation of clinical trials. A final evaluation will include review and discussion of trainees' achievements and future career directions.

■ Eligibility

Candidates applying for the Integrative Oncology Training Program must hold an MD, MD/PhD, DO, or other medical degree that permits them to practice medicine within their jurisdiction. In addition, candidates must have completed at least one year of residency training in an ACGME-approved residency program that will lead to board certification or board eligibility in a specialty. Applicants may come from one of the following three groups of physicians:

1. Resident physicians currently in a postgraduate program, e.g., a transitional or family practice intern wishing to receive training in integrative medicine in between PGY1 and PGY2
2. Physicians who are completing a postgraduate program but wish to continue postgraduate training, e.g., a graduating internal medicine resident who has decided to develop an academic career in integrative medicine
3. Attending physicians who have been in practice for a number of years and who wish to receive formal training in integrative medicine

Applicants are not required to have received subspecialty training in oncology, although such candidates are preferred. Candidates who have completed training in a general specialty, such as internal medicine, general surgery, pain and palliative care, physical medicine and rehabilitation, or family practice are eligible if caring for cancer patients or cancer survivors is their main clinical focus. They also must express a strong commitment to pursuing an academic career.

Applicants are required to provide:

- A cover letter/career statement
- CV
- Letters of reference from individuals in supervisory capacity
- Medical school credentials
- If in training, letter verifying the status of the training
- If training is complete, certificate verifying completion
- Board certificate, if applicable
- License, if applicable
- Health clearance
- Malpractice insurance policy documents

■ Fees

The fee for the six-month program is \$3,000, and the fee for the 12-month program is \$5,000, payable to the Integrative Medicine Service.

■ How to Apply

To apply, please contact Irina Vinokur, Education Programs Coordinator at IntegMedTraining@mskcc.org.

At-Home Tools

■ Audiovisual Programs

Wilson Technique Workout for Breast Cancer Survivors

Short intervals of physical activity integrated into your weekly routine can play an important role in recovering from surgery and breast cancer treatments. This at-home workout DVD, led by Integrative Medicine Center Personal Trainer and Clinical Nurse Specialist Donna Wilson, is designed for breast cancer patients and survivors looking for an exercise program tailored to their specific needs, including maintaining normal range of motion in the arms and decreasing chest tightness.

The 90-minute DVD is split into two segments. In the group exercise segment, Donna is accompanied by a team of breast cancer survivors in demonstrating workout routines focused on rebuilding strength, reducing fatigue, and regaining flexibility. In the personal training segment, viewers work out “one-on-one” with Donna through five distinct workouts.

Visit one of the following locations to purchase this DVD, or call the Bendheim Integrative Medicine Center at 646-888-0800.

- [Bendheim Integrative Medicine Center \(front desk\) at 1429 First Avenue](#)
- [Memorial Hospital Gift Shop at 1275 York Avenue](#)
- [Evelyn H. Lauder Breast Center Boutique at 300 East 66th Street](#)
- [Rockefeller Outpatient Pavilion Gift Shop at East 53rd Street](#)

All proceeds of the sale of this DVD support patient services at the Bendheim Integrative Medicine Center.

■ Audio Programs

Self-Hypnosis for Relaxation and Stress Relief

Self-hypnosis is a form of meditation that induces a deeper relaxation response than traditional meditation. Patients and family members can use self-hypnosis prior to surgery to relax the body and mind, correct sleeplessness, or relieve anxiety and stress at any time.

Download this program for free on [iTunes®](#).

■ Online Videos

Please visit <http://www.mskcc.org/cancer-care/integrative-medicine/home-tools> to view and/or print this page.

About Herbs, Botanicals & Other Products

This information resource, presented by our Integrative Medicine Service,

provides evidence-based information about herbs, botanicals, supplements, and more.

Search Herbs, Botanicals & Other P

GO About Herbs

Newsletter SIGN UP

All # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Frequently Asked Questions

Find out which botanical products may pose a health risk; which supplements might cause dangerous interactions; and more.

About this Resource

Objective information for oncologists, healthcare professionals, and consumers

Our Herbal Policy

Healthcare providers should always inquire about and document the use of complementary therapies with all patients

Search About Herbs

Please visit <http://www.mskcc.org/cancer-care/integrative-medicine/about-herbs> to view and/or print this page.

Herbs, Botanicals & Other Products: FAQs

■ Integrative Medicine

Do you offer alternative treatments for cancer?

Alternative treatments are those used instead of mainstream therapies. They are unproven, expensive and unsafe. We do not offer alternative medicine in this hospital.

What is complementary medicine?

Complementary medicine includes therapies that are used as adjuncts to mainstream cancer care. They are supportive measures that control symptoms, enhance well-being, and contribute to overall patient care. Their benefits are usually supported by clinical studies and they are generally inexpensive. Complementary therapies include acupuncture, massage, music, and mind-body therapies such as meditation.

Does healthcare insurance pay for Integrative Medicine therapies?

It depends on the coverage of your policy. Many insurance companies recognize the benefits and cost-effectiveness of complementary therapies and offer coverage to include them. Some hospitals provide these therapies free of charge as part of the overall inpatient care.

Spending on most complementary therapies is considered a medical expense and may also be eligible for a healthcare flexible spending account.

■ **Dietary Supplements for Cancer Prevention**

What are free radicals? Do they cause cancers?

Free radicals are chemicals that have unpaired electrons. They are present in the environment and are also generated in the body through normal metabolism. Free radicals are highly active and are thought to interact with DNA causing cell damage and cancer.

What are antioxidants?

Antioxidants are substances that can inhibit the process of oxidation associated with free radicals. Many foods and dietary supplements, such as vitamin C and pycnogenol, have antioxidant effects.

Can antioxidants be used to prevent cancers?

Some believe a diet rich in antioxidants helps prevent cancer. However, there is no conclusive evidence that antioxidant supplements can reduce cancer incidence. Moreover, high intake of certain antioxidants is associated with increased cancer risk.

Should I use a daily multivitamin to prevent cancer?

Studies of multivitamin use for cancer prevention have yielded mixed results. Most found that multivitamins have little or no effect in reducing the overall risk of cancer. And some studies suggest that multivitamin supplementation may actually increase the risk of certain cancers. But according to [a recent study from the Physicians' Health Study published in the Journal of the American Medical Association](#), multivitamins can lower cancer incidence in male cancer survivors. Because of variation in the populations studied and the formulations of multivitamins used, the benefits of a daily multivitamin for general cancer prevention remain unclear.

■ **Dietary Supplements During Cancer Treatment**

Are there any herbs that can be used to treat cancer?

Many chemotherapeutic drugs used in cancer treatment are derived from plants. They are developed after rigorous clinical trials for safety and efficacy. Only a few oral herbal supplements, like turmeric, and some medicinal mushrooms have been tested this way. However, even those that showed promising results in lab studies may not have the same effects in humans. In addition, the optimal dosages are often not determined. More studies are needed before they can be recommended for general use.

Can I use herbs or supplements safely during chemotherapy?

Most herbs and dietary supplements have not been studied together with chemotherapy drugs and their interactions remain unclear. Many oncologists advise their patients to avoid these products during chemotherapy.

How do herbs interact with chemotherapy drugs?

Herbs can interact with chemotherapy drugs through different mechanisms. Some herbs can interfere with the metabolism of the drugs, making them less effective. Other herbs may potentiate the adverse effects, such as bleeding, of chemotherapy drugs.

While undergoing cancer therapy, do I have to avoid spices and herbs in cooking?

Culinary herbs used in small quantities for flavoring are generally safe. However, consuming large

amounts for prolonged period of time may have adverse effects. For example, there are reports of post-operative hemorrhage associated with use of garlic.

■ **Dietary Supplements to Alleviate Side Effects of Cancer Treatment**

Can I take antioxidants to prevent the side effects of cancer therapies?

There are prescription drugs that act as antioxidants to help protect against the adverse effects of cancer therapies. The precise mechanism and the side effects of these drugs have been thoroughly examined. However, very few antioxidant dietary supplements have been studied for their safety and usefulness. Current information about the use of these products is confusing. Some think they help kill cancer cells or protect healthy cells from the damage caused by chemotherapy drugs or radiation therapy. But antioxidant supplements may also make these treatments less effective. Until more is known, it is wise to avoid them during chemotherapy.

I heard some herbal formulas can be used to treat the side effects of chemotherapy. Is that true?

Herbs like Astragalus have immunomodulating effects. They have been studied in humans and have been shown to help reduce some of the adverse reactions induced by chemotherapy. However, they are not appropriate for all patients and larger clinical trials are needed to confirm their safety and efficacy.

I have peripheral neuropathy following chemotherapy. Is there a natural treatment to relieve my symptoms?

Several nutritional supplements, such as glutamine, glutathione, vitamin Bs, vitamin E and alpha-lipoic acid, have been tested as treatments for peripheral neuropathy. Early clinical trials indicate that glutamine may reduce the incidence and severity of chemotherapy-induced peripheral neuropathy. Preliminary studies show that acupuncture can reduce pain and improve nerve function and sensation, and can help relieve peripheral neuropathy associated with chemotherapy. But larger studies are needed to confirm these effects.

Are there any herbs that can help my hair grow back?

Hair loss is a common adverse effect from chemotherapy. Most patients' hair will grow back after discontinuing treatment. Currently, there is no evidence that herbs can help regrow hair.

What is good for “dry mouth”?

Many patients may experience xerostomia (dry mouth) after surgery or radiation therapy for head and neck cancer. Prescription drugs can be used to help relieve this symptom but they are often associated with other side effects. Currently, there is convincing evidence that acupuncture can be used to address this symptom safely and effectively. Patients can consult with a qualified practitioner for more information.

What are phytoestrogens?

These are herbs that have estrogen-like activities. A few popular examples include soy, red clover, flaxseed, and dong quai.

I have estrogen-receptor positive breast cancer. Can I take soy products?

The use of soy products by patients with hormone sensitive cancer remains controversial. Animal studies show that constituents in soy may stimulate the growth of breast cancer cells and increase risk of metastasis. They can also work against tamoxifen, a drug used for estrogen-dependent breast

cancer. However, epidemiological data suggest that soy foods help reduce breast cancer risk and have a positive effect on breast cancer survivors. Soy foods also have other health benefits as they are naturally rich in protein and low in fat. Until more is known, many experts agree that moderate consumption of soy foods is acceptable but concentrated soy supplements should be avoided.

■ **Herb-drug Interactions**

Do botanicals interfere with the metabolism of drugs?

Yes, many botanicals interfere with the way a drug is processed in the body: Increased metabolism of a drug reduces its concentration in the blood and may reduce its effectiveness; decreased metabolism of a drug increases its concentration in the blood and can lead to toxicity or increased side effects.

I am taking an anticoagulant drug. Why are there so many dietary restrictions?

Anticoagulant drugs, such as warfarin, have a very narrow therapeutic range. They can cause adverse effects and are prone to interact with other drugs and dietary supplements. Herbs like ginger, garlic, turmeric can interfere with anticoagulants increasing the risk of bleeding. Certain vegetables rich in vitamin K can decrease the therapeutic effects of warfarin.

How do I know if an herb or a vitamin can interact with chemotherapy drugs or other prescription drugs?

Talk to your physician or pharmacist before taking dietary supplements.

■ **Acupuncture**

How does acupuncture work?

In Traditional Chinese Medicine, acupuncture is thought to treat diseases by promoting flow of energy (Qi) in meridians that are believed to connect various organs in the body. Modern research indicates that acupuncture can modulate the secretion of neurochemicals, such as beta-endorphin and serotonin, to help relieve pain. Studies also suggest that patient-practitioner interaction plays a role in acupuncture's therapeutic effects. Research is underway to determine the mechanisms underlying acupuncture's effects.

Can acupuncture be used to treat cancer?

There is no scientific evidence to show that acupuncture can be used to treat cancer or to shrink tumors. But several studies indicate acupuncture's usefulness in alleviating symptoms associated with cancer and its treatments.

What is acupuncture good for?

Acupuncture can be used to control several symptoms associated with cancer treatment, such as pain, anxiety, nausea, dry mouth, and hot flashes. There is preliminary evidence indicating the benefits of acupuncture for neuropathy.

Is it safe to receive acupuncture during cancer treatment?

Acupuncture can be performed safely during cancer treatment. However, patients who are on anticoagulants or are susceptible to infections should use acupuncture with caution. It is important to consult with an oncology-trained acupuncturist for evaluation before beginning treatment.

Can I receive acupuncture if I have lymphedema?

Due to risk of infections, patients are often advised to avoid needles on limbs that are prone to lymphedema. This extends to the use of acupuncture needles. However, most acupuncturists use

disposable needles and clean needle technique which greatly reduce the risk of infection. Furthermore, emerging data from recent studies indicate that acupuncture treatment is safe and helps reduce symptoms of lymphedema. We are currently conducting a study to confirm the safety and efficacy of acupuncture for lymphedema. Patients with lymphedema should first consult with a physician and seek treatment from trained acupuncturists.

Do I need a doctor's referral for an acupuncture treatment?

In New York and in many other states, acupuncturists are considered as independent healthcare providers. You don't need a doctor's referral to get an acupuncture treatment. However, it is important to consult with your physician for a proper diagnosis and evaluation. Your doctor and acupuncturist can work together to provide you the best care.

E-mail Us

Please visit <http://www.mskcc.org/cancer-care/integrative-medicine/e-mail-us/form> to view and/or print this form.

For Older Patients



Our Integrative Medicine Service offers a wide range of specially designed therapies, including exercise programs, for people with cancer who are 65 and older.

Older people with cancer can face unique issues during their treatment, including decreased mobility, physical and emotional side effects, and stress and sleep problems. Memorial Sloan Kettering's Integrative Medicine Service offers a wide range of non-pharmaceutical services that complement older patients' primary medical treatment by addressing common challenges encountered during their illness.

We are committed to providing older cancer patients with programs that strengthen physical and emotional health. We offer massage therapies, mind/body therapies, music therapy, acupuncture for pain and other symptoms, and a variety of fitness classes, such as yoga and exercise programs that are designed specifically for older patients. Our services are

also available to family members, caregivers, and the public.

In addition, the Integrative Medicine Service participates in the [65+ Program](#), a multidisciplinary team at Memorial Sloan Kettering that focuses on the care and study of clinical, psychosocial, educational, and physical needs of older people with cancer. The 65+ team includes staff from the areas of geriatric medicine, rehabilitation, nutrition, social work, pain and palliative care, nursing, geriatric psychiatry, and telehealth services.

Patients who take advantage of the services offered by the Integrative Medicine Service report an improved quality of life. They find that they breathe more easily, are more flexible, and experience some relief from the anxiety and physical stress of cancer treatment.

Our Research

Memorial Sloan Kettering Cancer Center is an international leader in integrative oncology care, research, and education. Since its establishment in 1999, the Integrative Medicine Service has engaged in scientific

research to evaluate complementary (integrative) therapies for cancer. The goal of our research is to determine which therapies are most effective as well as which specific therapies are most useful in treating particular symptoms.

Because the Integrative Medicine Service conducts research and provides services for people with cancer, we have expertise in integrating effective non-pharmacologic therapies into mainstream cancer patient care. The therapies we investigate and use can help to manage a variety of physical and emotional symptoms associated with cancer and its treatment.

We know that a therapy works only when it has been scientifically tested and found to be effective and safe. Such research is essential. Anecdotal reports may provide research ideas, but they are not proof of efficacy. Patients and the public have a right to know whether therapies of all kinds fulfill purported claims.

[Our Publications](#)

Visit PubMed for our journal articles

[go »](#)

The burgeoning interest in complementary therapies has been accompanied by increasing research support from the National Institutes of Health and other sources. This support has made it possible to conduct well-conceived, high-quality studies, equivalent to that of any other scientific research. The quality of our integrative medicine research is consistent with research produced by other departments at Memorial Sloan Kettering.

The Integrative Medicine Service conducts both clinical and basic-science laboratory research. All research is conducted in collaboration with senior clinical and laboratory scientists in many departments of Memorial Sloan Kettering Cancer Center, including investigators at the [Sloan Kettering Institute](#).

■ **Current Clinical Studies**

Our clinical research investigates the ability of therapies to relieve symptoms associated with cancer and cancer treatments, and to improve patients' well-being. All of our clinical trials are open to clinically eligible patients from Memorial Sloan Kettering and from any other hospital or medical practice.

Below is information about clinical trials that are now open to new participants and those that will open soon.

Lymphedema

We recently published results of our pilot study on the safety of acupuncture for breast cancer-related lymphedema. This study showed not only that acupuncture is safe, but also that it reduced swelling in patients' arms. Because of these exciting results, we are about to begin a large, randomized clinical trial with the Memorial Sloan Kettering breast cancer team.

If you have had lymphedema of the arm for at least six months but less than five years and are interested in this study, please contact one of our research assistants for more information at 646-888-0809 or 646-888-0810.

Medicinal Mushroom Extract

We have investigated Maitake medicinal mushroom extract for many years. It appears to enhance immune function, but whether it makes a clinical difference remains unknown. With Memorial Sloan Kettering's Hematology Service, we are working to determine whether this extract enhances hematopoiesis in patients with myelodysplastic syndrome.

Please contact one of our research assistants for more information at 646-888-0809 or 646-888-0810.

Fitness

At the Integrative Medicine Service, exercise and fitness are essential areas of clinical, educational, and research efforts. Exercise is known to improve survival in patients with various cancer diagnoses. We will soon begin a major effort to study ways to help breast cancer patients stay with physical activity. At the same time, we will conduct a related basic-science study of the biological mechanisms by which exercise produces survival benefits.

This study will open soon. If you are interested in participating, please contact one of our research assistants for more information at 646-888-0809 or 646-888-0810.

Yoga Breath Training

In collaboration with Memorial Sloan Kettering's Pulmonary Service, we are initiating a special study to determine whether yoga breath training improves patients' lung capacity and mobility.

This study will open soon. If you are interested in participating, please contact one of our research assistants for more information at 646-888-0809 or 646-888-0810.

Vitamin D

We are conducting a retrospective study to examine the relationship between vitamin D levels in stored blood and existing data on length of survival in patients with breast cancer and colorectal cancer. We are conducting this study in collaboration with physicians at Memorial Sloan Kettering who specialize in these diseases.

Completed Integrative Medicine Research

The Integrative Medicine Service conducts clinical studies to determine the effectiveness of complementary therapies in cancer care.

Acupuncture

We have studied the effectiveness of acupuncture for the treatment of symptoms such as fatigue, shortness of breath, xerostomia, hot flashes, nausea, neuropathy, and pain. We have also published studies on acupuncture for postsurgical pain and dysfunction, saliva production in head and neck cancer patients, hot flashes, post-chemotherapy fatigue, and more.

Massage therapy

Our published research shows that massage therapy relieves pain, fatigue, anxiety, nausea, and depression.

Music therapy

We published results of a randomized trial that showed significant reductions in stress and depression in patients who received music therapy while awaiting bone marrow transplantation.

■ Research on Botanicals and Other Dietary Supplements

The Integrative Medicine Service conducts research to evaluate the effectiveness of herbs and other botanicals, vitamins, and other dietary supplements. Recent studies investigated the following agents:

[About Herbs,
Botanicals & Other
Products](#)

Sho-saiko-to (xiao-chai-hu-tang)

With Memorial Sloan Kettering's hepatobiliary disease management team, we studied an herbal compound used in China to treat chronic hepatitis C. Results were disappointing.

Astragalus

An Astragalus-based herbal formula for non-small cell lung cancer patients appeared promising. With Memorial Sloan Kettering's lung cancer team, we conducted a clinical trial to determine its value. However, we found that it did not extend life.

This information resource, presented by our Integrative Medicine Service, provides evidence-based information about herbs, botanicals, supplements, and more.

[Learn more »](#)

Additional Resources

Here is a list of recommended sources of information about complementary and alternative medicine.

Books

Cassileth BR. *The Complete Guide to Complementary Therapies in Cancer Care*. Singapore: WSPC, 2011.

Cassileth BR, Yeung KS, Gubili J. *Herb-Drug Interactions in Oncology, 2nd Edition*. Shelton, CT: People's Medical Publishing House, 2010.

Cassileth B, Lucarelli C. *Herb-Drug Interactions in Oncology*. Ontario, Canada: BCDecker, 2003.

Duke, James A. *The Green Pharmacy*. New York: Rodale Press, 1997.

Tyler, Varro E. *Herbs of Choice: The Therapeutic Use of Phytomedicinals*. London: Pharmaceutical Press, 1994.

Tyler, Varro E. *The Honest Herbal: A Sensible Guide to the Use of Herbs and Related Remedies*. London: Pharmaceutical Press, 1993.

Multimedia

Watch videos featuring Memorial Sloan Kettering experts discussing Integrative Medicine.

Please visit <http://www.mskcc.org/cancer-care/integrative-medicine/multimedia> to view and/or print this page.

©2014 Memorial Sloan Kettering Cancer Center

Source URL (retrieved on 09/23/2014 - 6:26 PM): <http://www.mskcc.org/cancer-care/integrative-medicine>