From CAM to Integrative Medicine at Mayo Clinic
Research Informing Practice and Improving Care

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Director, Complementary and Integrative Medicine Program
Mayo Clinic
Department of Medicine
Learning Objectives

- Understand the evolution of CAM and the emergence of “Integrative Medicine”
- Understand the pivotal role research plays in transforming practice
- Appreciate the key role philanthropy plays in this transformation
- Consider ways to incorporate evidence-based therapies for personal well-being
CAM Use by U.S. Adults and Children

- Adults (2002): 36.0%
- Adults (2007): 38.3%
- Children (2007): 11.8%

Barnes, 2008
Diseases/Conditions for Which CAM Is Most Frequently Used Among Adults – 2007

- Back pain: 17.1%
- Neck pain: 5.9%
- Joint pain: 5.2%
- Arthritis: 3.5%
- Anxiety: 2.8%
- Cholesterol: 2.1%
- Head or chest cold: 2.0%
- Severe headache: 1.8%
- Acute insomnia: 1.6%
- Migraine: 1.4%
Household Usage of CAM

- Chiropractic: 32%
- Massage therapy: 27%
- Acupuncture: 6%
- Herbs/Dietary supps: 30%
- Hypnosis/Guided imagery: 4%
- Acupressure: 5%
- Yoga/Tai Chi: 13%

62% one or more

Base: Total Sample (n=100); Survey Questions: #18
Complementary and Integrative Medicine Program

Mission

To apply the tradition of the Mayo model of research, education and patient care to the realm of complementary and alternative medicine (CAM) through an evidence-based approach.
Department of Medicine Complementary and Integrative Medicine Program

Department of Medicine
Morrie A. Gertz, MD, Chair

CIM Program
Brent A. Bauer, MD, Director
Beth A. Borg, Administrator

Advisory Committee

CIM Research
Amit Sood, MD, Chair

Patient Oriented Research
Research Fellowship

Research Cores
Career Development
Pilot & Exploratory Studies

CIM Education
Mark C. Lee MD, Chair

Curriculum
Seminars
CME

CIM Practice
Amit Sood, MD, Chair
Tony Chon MD Acupuncture

Clinic
Hospital
Massage Therapy at Mayo Clinic

**The Quest**
Reduce the pain associated with CV surgery

**The Players**
CV Surgery, Nursing, CIM

**The “Spark”**
A benefactor family
Massage Therapy – Mayo Clinic
Pilot Trial

58 cardiac surgery patients

Massage therapy vs quiet relaxation

Decreased

Pain Anxiety Tension

Massage Therapy after CV Surgery

Control group (n=28)

Massage group (n=30)

Anxiety Level
Massage Therapy after CV Surgery

Control group (n=28)

Massage group (n=30)

Pain level
Massage Therapy – Mayo Clinic
Randomized – Controlled Trial

- 113 cardiac surgery patients
- MT therapy days 2, 4 vs. quiet relaxation
- Decreased pain \( P<0.001 \)
- Decreased anxiety \( P<0.001 \)
- Decreased tension \( P<0.001 \)
- Increased relaxation \( P<0.001 \)

Massage Therapy Medical Edge Video
Massage Therapy at Mayo Clinic

Other Studies

- MT for colo-rectal surgery patients
- MT for thoracic surgery patients
- MT prior to cardiac interventions
- MT for cardiologists and nurses
- MT for cardiac ultrasonographers
Massage Therapy at Mayo Clinic

The Quest

Reduce the pain associated with CV surgery

The Players

CV Surgery, Nursing, CIM

The “Spark”

A benefactor family
Massage Therapy at Mayo Clinic

The Impact

- **Massage therapy now routine at MC**
  - Domino effect
  - Small investment > “snowball” returns

- **38 hospitals in US**

- **5 international hospitals**
  - Australia, Austria, China, Ireland, Switzerland
Massage Therapy at Mayo Clinic

The Vision

Massage therapy routinely available to all

- Hospitalized patients at Mayo Clinic
- Family members
- Staff

Continue to use the Mayo experience to transform health care in the U.S. and around the world
Healing Enhancement Program
Cardiovascular Surgery
Offering complementary integrative therapies along with conventional medicine
Summary of Inpatient Services

- Acupuncture
- Massage
- Hand Massage
- Art at the Bedside
- Biofeedback-assisted Meditation
- Aromatherapy
Summary of Inpatient Services

- **CD players/Bose units**
  - Guided imagery, music

- **TV/DVD players**
  - VOD, relaxation videos

- **Support groups**

- **Patient Education**
  - “Relieving Stress and Renewing Energy”
  - “Healing Movement” (e.g. yoga, Tai Chi Easy)
  - “Nutrition for Healing Enhancement and Disease Prevention”
Herbal Research at Mayo Clinic

**The Quest**
Reduce inflammation and the recurrence of atrial fibrillation using mangosteen

**The Players**
Cardiology, Nursing, Pharmacy, CIM

**The “Spark”**
An individual benefactor
Herbal Therapy at Mayo Clinic

Other Studies

- Ginseng for cancer related fatigue
- Ginkgo to prevent “chemobrain”
- Soy drink for fibromyalgia
- St. John’s wort for smoking cessation
- Theanine-enriched chocolate for smoking cessation
- Valerian to enhance sleep in patients with cancer
Herbal Therapy at Mayo Clinic

The Impact

- Provide reliable information to our clinicians
- Enable patients to make informed, evidence-based decisions about the use of herbs and dietary supplements
Herbal Research at Mayo Clinic

The Impact

- Provide reliable information to our clinicians
- Enable patients to make informed, evidence-based decisions about the use of herbs and dietary supplements
- Over 35 million reached
  - The Mayo Book of Alternative Medicine
  - MayoClinic.com
  - Mayo Clinic Health Letter
MAYO CLINIC

Book of Alternative Medicine

Straight Answers From the World's Leading Medical Experts

The new approach to using the best of natural therapies and conventional medicine
COMPLEMENTARY & ALTERNATIVE MEDICINE

What is complementary & alternative medicine?
Understanding complementary & alternative medicine — from investigating treatment claims to therapies for specific diseases.
- Complementary & alternative medicine basics
- Complementary & alternative medicine by disease or condition

Herbal supplements: What to know before you buy
New federal regulations should lead to safer herbal supplements, but that doesn't mean they're safe for everyone. Determine whether such dietary supplements are right for you.

ask a Mayo Clinic specialist
What are the health benefits of glyconutrients?

Mayo Clinic dietitian Katherine Zeratsky, R.D., L.D., and colleagues answer select questions from readers.
see more Q&A
Herbal Therapy at Mayo Clinic

The Vision

To dramatically expand the current research program to place critically needed evidence-based information in the hands of consumers, patients and physicians.
Stress Effects on Health

- Decreased wound healing
- Decreased immune function
- Decreased testosterone
- Increased insulin
- Worsened px after MI
- Increased risk sudden death
- Genomic changes
  - Increased inflammation
- Incr. infection, colds,
- Increased HIV progression
- Increased inflammation
- Decreased vaccine response
- Increased liver disease
- Decreased health QOL
- Increased asthma flares
- Increased illness in children
- Increased LV dysfunction
- Increased cardiac arrhythmias
- Increased cardiac ischemia
- Increased HR
- Increased BP
- Increased clotting
- Decreased insulin sensitivity

Meditation at Mayo Clinic

The Quest
Train patients and caregivers in stress management and resiliency training

The Players
Patients, cancer survivors, employees, staff physicians, Nursing, CIM

The “Spark”
Several benefactors and families
Paced Breathing Meditation
Amit Sood, MD MSc
Stress Management and Resilience Training

- Transplant patients
- Dialysis patients
- CV Health Clinic
- Type II diabetes
- Mild Cognitive Impairment
- Tobacco Cessation
- Radiology staff
- Administrators
- Nursing Supervisors
- Pink Ribbon mentors
- Community Ed program
Log On
Two Steps to Mindful Awareness

Cultivate peace, joy, and well being
Decrease anxiety and attention deficit
Rightwire your brain

Amit Sood, MD MSc
Director of Research & Practice
Complementary and Integrative Medicine Program
Mayo Clinic, Rochester, MN
Meditation

Training
Learn Mayo Clinic Meditation

Meditation
15 Minutes

Meditation
5 Minutes

HEALING THOUGHTS
Do not postpone joy.
MAYO CLINIC WELNESS SOLUTIONS FOR Arthritis

Understanding your condition - a session with Mayo Clinic doctors
Simple health tips | Gentle yoga | Daily Nutrition Guide

TAKE CHARGE OF YOUR HEALTH

GENTLE YOGA

INTEGRATIVE MEDICINE

This package is 100% recyclable & biodegradable
Dan Abraham Healthy Living Center

Care for your body, mind and spirit
Stress Management

- **Relaxation Suite**
  - Personal massage
  - Hydromassage
  - Relaxation rooms

- **Mind/Body studio**

- **Fitness Balcony**

- **Pilates Reformer personal/small group training**

- **Mind, Body, Spirit–Stress Mgmt sequence**
Integrative Medicine

“The practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing.”
## Program Impact

- **NIH** $3.6 million
- **Protocols** >60
- **Study Section** NIH, NCI, VA, Komen Foundation
- **Publications** >200
- **Editorial Boards** 8 (Embody Health Newsletter)
- **Book Chapters** >50
- **Research Fellowship** 2008
- **Master’s Course** 2008
# Program Impact

<table>
<thead>
<tr>
<th>Media Hits/year</th>
<th>~200</th>
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<tbody>
<tr>
<td>TV</td>
<td>ABC News, CNN, Discovery Channel</td>
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<tr>
<td>Radio</td>
<td>NPR, MPR</td>
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<tr>
<td>Print</td>
<td>NY Times, Chicago Tribune</td>
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<tr>
<td>Magazines</td>
<td>Oprah, Martha Stewart, LHJ, RD</td>
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| Presentations (N/Intl) | >35 (China, Germany, Norway) |

| CAHCIM             | Steering committee, 3 WG |

| CME                | 5 courses |
Program Impact

- Physician Consults: 628 per year
- MD Acupuncture: 812 per year
- LAc acupuncture: 5,052 per year
- Massage Therapy: 3,774 per year
Program Impact

- “I have been headache free for the first time in many years – thanks to acupuncture and the great care I received from Dr. Chon”

- “Massage therapy has given me my life back.”

- “For the first time, I can see reaching a point where I am in control and not the fibromyalgia”

- “The best part of my visit to Mayo Clinic was my integrative medicine consult with Dr Tilburt”

- “The hour I spent with Dr. Sood changed my life!”
CIM Program

Vision

- Ensure that Mayo Clinic continues to meet the comprehensive needs of our patients – body, mind, and spirit
- Continue to use the Mayo experience to transform health care in the U.S. and around the world
Questions

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