WELCOME TO
LOGAN COLLEGE OF CHIROPRACTIC

1st NATIONAL SYMPOSIUM ON COMPLEMENTARY AND ALTERNATIVE GERIATRIC HEALTH CARE

Sponsors:
Logan College of Chiropractic
Saint Louis University School of Medicine
Missouri Gateway Geriatric Education Center
St. Louis VA Geriatric Research Education and Clinical Center

Conference Overview:
1. Teach the evolving approaches of complementary and alternative health care.
2. Place cost-effective complementary and alternative knowledge and skills in the hands of geriatric health care providers.

Specific Objectives:
1. Discover the level of evidence for the body-mind network of communication.
2. Identify the role of chiropractic care in geriatric management.
3. Learn about the role of bioelectrical and biomagnetic interactions in healing.
4. Understand the effective use of nutrient agents in geriatric health care.
5. Learn about the geriatric clinical resources available on the Internet.

Program Directors:
Norman W. Kettner, D.C., Chair, Department of Radiology, Logan College of Chiropractic
John Morley, M.D., Director, Division of Geriatric Medicine at Saint Louis University School of Medicine
Nina Tumosa, Ph.D., GRECC Health Educational Specialist, St. Louis Veterans Affairs Medical Center

Continuing Education Credits:
- 12 Chiropractic Continuing Education credits have been applied for.
- Saint Louis University School of Medicine designates a maximum of 10 hours in category I credit towards the AMA Physicians Recognition Award. Each physician should claim only those hours that s/he actually spent in the educational activity.

SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE
Continuing Medical Education

1st NATIONAL SYMPOSIUM ON COMPLEMENTARY AND ALTERNATIVE GERIATRIC HEALTH CARE

April 29-30, 2000

FACULTY DISCLOSURE POLICY

It is the policy of Saint Louis University School of Medicine to insure balance, independence, objectivity and scientific rigor in all its educational programs. All faculty participating in these activities are expected to disclose to the program audiences (1) any real or apparent conflicts of interest related to the content of their presentations, and (2) if their presentation will include any information regarding unapproved uses of pharmaceuticals or (3) ongoing research (preliminary data).

FACULTY DISCLOSURES

Dr. George Ulett demonstrates a HANS unit in his workshop and distributes the unit in the United States.

Dr. Songping Han is the President of HANS International, Inc.

Dr. Mark Messina is a consultant for Archeve Daniels Midland Co. for isoflavone supplements and soy protein isolate.

Dr. Kenneth Stein is President of Instruments Impression, Inc who is affiliated with Quixtar and Amway, the marketing company for Magna Bloc Therapeutic Magnets.

Dr. John Morely is receiving grant research/support from the following:
Vivus, Merk & Co., Upjohn, B. Braum McGaw, Bayer Corporation and Nestec, Ltd.
Speaker's Bureau: LXN, Organon, Ross, Pharmacia & Upjohn, Glaxo Wellcome, Hoechst Marion Roussel, Searle, Merck & Co., Roche, Bristol-Myers Squibb, Novartis, Pratt, B. Braun McGaw, Pfizer, and Parke-Davis.

Other faculty have indicated no disclosures.

ACKNOWLEDGEMENTS

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Logan College of Chiropractic
Saint Louis University School of Medicine
Missouri Gateway Geriatric Education Center
St. Louis VA Geriatric Research Education and Clinical Center

SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE
POLICY FOR RELATIONSHIPS WITH COMMERCIAL ENTITIES

The purpose of continuing medical education (CME) is to enhance the Physician's ability to care for patients. It is the responsibility of the accredited sponsor of a CME activity to assure that the activity is designed primarily for that purpose.
Accredited sponsors often receive financial and other support from non-accredited commercial organizations. Such support can contribute significantly to the quality of CME activities. The purpose of these guidelines is to describe appropriate behavior of accredited sponsors in planning, designing, implementing, and evaluating certified CME activities for which commercial support is received.

-Preamble: ACCME Standards for Commercial Support of CME

COMMERCIAL SUPPORT MAY BE ACCEPTED FOR AN EDUCATIONAL ACTIVITY UNDER THE FOLLOWING CONDITIONS ("Accredited sponsor" refers to Saint Louis University School of Medicine CME):

Statement of Purpose: The program must be for scientific and educational purposes only and will not promote the commercial entity's products, directly or indirectly.

Letter of Agreement: The accredited sponsor and the commercial entity must agree in writing (see Letter of Agreement) to abide by the ACCME Standards for Commercial Support of Continuing Medical Education and the FDA guidelines regarding same.

Design of Activity: In designing educational activities, the accredited sponsor (CME) must assure that the activities have the following characteristics: They must be free of commercial bias for or against any product; If the activities are concerned with commercial products, they must present objective information about those products, based on scientific methods generally accepted in the medical community. Full disclosure of potential conflicts of interest with industry must be made by all participating faculty members (see SLU Policy on Conflict of Interest and Disclosure form), and must be disclosed to the audience of the program through the publicity, in course syllabi, and/or in the introductions of presenters.

Independence of Accredited Sponsors: The design and production of educational activities shall be the ultimate responsibility of the accredited sponsor. Commercial supporters of such activities shall not control the planning, content or execution of the activity. To assure compliance with this standards, the following requirements must be adhered to.

Assistance with Preparation of Educational Materials: The content of slides and reference materials must remain the ultimate responsibility of the faculty selected by the accredited sponsor. A commercial supporter may be asked to help with the preparation of conference related educational materials, but these materials shall not, by their content or format, advance the specific proprietary interests of the commercial supporter.

Assistance with Educational Planning: An accredited sponsor may obtain information that will assist in planning and producing an educational activity from any outside source whether commercial or not. However, acceptance by an accredited sponsor of advice or services concerning speakers, invitees or other educational matters, including content, shall not be among the conditions of providing support by a commercial organization.

Marketing of CME Activities: Only the accredited sponsor may authorize a commercial supporter to disseminate information about a CME activity to the medical community. However, the content of such information is the responsibility of the accredited sponsor, and any such information must identify the educational activity as produced by the accredited sponsor.

Activities Repeated Many Times: If commercially supported educational activities are offered that repeat essentially the same information each time they are given, then it must be demonstrated that every iteration of that activity meets all of the Essentials and Standards of the ACCME.

Educational Activities or Materials Prepared by Proprietary Entities: When educational activities consisting of concepts or materials are prepared by proprietary entities, such activities must adhere to the Essentials and Standards in all respects, especially with regard to the provisions concerning the independence of the accredited sponsor in planning, designing, delivering and evaluating such activities.

Policy for Relationships With Commercial Entities

Enduring Materials: The accredited sponsor is responsible for the quality, content, and use of enduring materials for purposes of CME credit. (For the definition, see ACCME "Standards for Enduring Materials.")

Identifying Products, Reporting on Research, and Discussing Unlabeled Uses of Products

a. Generic and Trade Names: Presentations must give a balanced view of therapeutic options. Faculty use of generic names will contribute to this impartiality. If trade names are used, those of several companies should be used rather than only that of a single supporting company.

b. Reporting Scientific Research: Objective, rigorous, scientific research conducted by commercial companies is an essential part of the process of developing new pharmaceutical or other medical products or devices. It is desirable that direct reports of such research be communicated to the medical community. An offer by a commercial entity to provide a presentation reporting the results of scientific research shall be accompanied by a detailed outline of the presentation which shall be used by the accredited sponsor to confirm the scientific objectivity of the presentation. Such information must conform to the generally accepted standards of experimental design, data collection and analysis.

c. Unlabeled Uses of Products: When an unlabeled use of a commercial product, or an investigational use not yet approved for the purpose is discussed during an educational activity, the accredited sponsor shall require the speaker to disclose that the product is not labeled for the use under discussion or that the product is still investigational.

Exhibits and Other Commercial Activities:

a. Exhibits: When commercial exhibits are part of the overall program, arrangements for these should not influence planning nor interfere with the presentation of CME activities. Exhibit placement should not be a condition of support for a CME activity. If exhibits are included

as a part of an activity, exhibitors should represent a diversity of companies/products rather than those of a single company.

Representatives from the exhibiting companies may not act in a manner which could be interpreted as interfering with the educational activity (e.g., actively pursing the participants for the purpose of promoting a product).

Continuing medical education activities are not trade shows and must not give the appearance that the primary intent is marketing of product.

b. Commercial Activities During Educational Activities: No commercial promotional materials shall be displayed or distributed in the same room immediately before, during, or immediately after an educational activity certified for credit.

c. Commercial Supporters at Educational Activities: Representatives of commercial supporters may attend an educational activity, but may not engage in sales activities while in the room where the activity takes place.

Management of Funds from Commercial Sources:

a. Independence of the Accredited Sponsor in the Use of Contributed Funds: The ultimate decision regarding funding arrangements for CME activities must be the responsibility of the accredited sponsor. Funds from a commercial source should be in the form of **an educational grant made payable to the accredited sponsor** for the support of programming (see also Saint Louis University School of Medicine Guidelines for Continuing Medical Education Activities). The terms, conditions and purposes of such grants must be documented by a signed agreement between the commercial supporter and the accredited sponsor. All support associated with a CME activity, whether in the form of an educational grant or not, must be given with the full knowledge and approval of the accredited sponsor. No other funds from a commercial source shall be paid to the director of the activity, faculty, or others involved with the supported activity.

b. Payments to Faculty: Payment of reasonable honoraria and reimbursement of out-of-pocket expenses for faculty is customary and proper. **Payments to the faculty must be from the accredited sponsor, NOT the commercial supporter. As outlined above, "funds from a commercial source should be in the form of an educational grant made payable to the accredited sponsor…" Under no circumstances should a commercial supporter pay a faculty member directly.**

Policy for Relationships With Commercial Entities

c. Acknowledgement of Commercial Support: Commercial support must be acknowledged in printed announcements and brochures, however, reference must not be made to specific products.

d. Accountability for Commercial Support: Following the CME activity, upon request, the accredited sponsor should be prepared to report to each commercial supporter and other relevant parties, and each commercial supporter to the accredited sponsor, information concerning the expenditures of funds each has provided. Likewise, each commercial

supporter should report to the accredited sponsor information concerning their expenditures in support of the activity.

Commercially Supported Social Events: Commercially supported social events at CME activities should not compete with, nor take precedence over, the educational events.

Policy on Disclosure of Faculty and Sponsor Relationships:

a. Disclosure Policy for All CME Activities: An accredited sponsor shall have a policy requiring disclosure of the existence of any significant financial interest or other relationship a faculty member or the sponsor has with the manufacturer(s) of any commercial product(s) discussed in an educational presentation. All certified CME activities shall conform to this policy (see Saint Louis University Faculty Disclosure Policy).

b. Disclosure in Conference Materials: CME faculty or sponsor relationships with commercial supporters shall be disclosed to participants prior to educational activities in brief statements in conference materials such as brochures, syllabi, exhibits, poster sessions, and also in post-meeting publications.

c. Disclosure for Regularly Scheduled Activities: In the case of regularly scheduled events, such as grand rounds, disclosure shall be made by the moderator of the activity after consultation with the faculty member or a representative of the supporter. Written documentation that disclosure information was given to participants shall be entered in the file for that activity.

Financial Support for Participants in Educational Activities:

a. Use of funds: In connection with an educational activity offered by an accredited sponsor, the sponsor may not use funds originating from a commercial source to pay travel, lodging, registration fees, honoraria, or personal expenses for non-faculty attendees. Subsidies for hospitality should not be provided outside of modest meals or social events that are held as part of the activity.

b. Scholarships for Medical Students, Residents and Fellows: Scholarship or other special funding to permit medical students, residents, or fellows to attend selected educational conferences may be provided, as long as the selection of students, residents or fellows who will receive the funds is made either by the academic or training institution or by the accredited sponsor with the full concurrence of the academic or training institution.

   Funding for medical students, residents or fellows is acceptable, however, the selection of those individuals must be unrestricted and should be the choice of the accredited sponsor and not the commercial organization, with the full concurrence of the academic or training institution.

1st NATIONAL SYMPOSIUM ON COMPLEMENTARY AND ALTERNATIVE GERIATRIC HEALTH CARE

PROGRAM – SATURDAY, APRIL 29, 2000

8:00 – 8:30AM	**Registration/Continental Breakfast**
8:30 - 8:45AM **142-B**	**Welcome/Introductions** ***George A. Goodman, D.C.*** President, Logan College of Chiropractic, Chesterfield, MO ***John E. Morley, M.B., B.Ch.*** Dammert Professor of Gerontology Director, Division of Geriatric Medicine at Saint Louis University School of Medicine, St. Louis, MO ***Norman W. Kettner, D.C., D.A.C.B.R.*** Chair, Department of Radiology, Logan College of Chiropractic, Chesterfield, MO
8:45 - 10:00AM **142-B**	**Keynote Speaker** **Candace Pert, Ph.D.** Research Professor, Department of Physiology and Biophysics, School of Medicine, Georgetown University, Washington, D.C. ***Neuroimmunology of Emotion***
10:00 - 10:15AM	**Break/Refreshments**
10:15-10:45AM **142-B**	**Track 1 - Chiropractic Techniques** **Robert Mootz, D.C.** Associate Medical Director for Chiropractic, State of Washington, Department of Labor and Industries, Adjunct Faculty, Palmer College of Chiropractic- West, San Jose, CA. ***An Evidenced-Based Update on Spinal Manipulation***
10:45-11:15AM **142-B**	**Track 2 - Nutritional Therapeutics** **Mark Messina, Ph.D., M.S., C.N.S.** Adjunct Associate Professor, Department of Nutrition Loma Linda University, Loma Linda, CA Nutritional Consultant ***Soyfoods as Possible Alternatives to Hormone Replacement Therapy***

11:15 - 11:45AM **Track 3 - Electromagnetic Interventions**
142-B **Beverly Rubik, Ph.D.**
Visiting Assistant Professor, University of Arizona College of Medicine Tucson, AZ. President and Founder, Institute for Frontier Science Bioelectromagnetics and Energy Medicine
Bioelectromagnetics and Energy Medicine

11:45 - 12:15PM **Track 4 - Cognitive-Behavioral Therapy**
142-B **Candace Pert, Ph.D.**
Research Professor, Department of Physiology and Biophysics, School of Medicine, Georgetown University, Washington, D.C.
Neuroimmunology of Emotion Continued

12:15 - 1:15PM **Lunch (provided)**

1:15 - 2:45PM **Workshop 1**

Room 142-B **1a.** **Lisa Killinger, D.C.**
Research Instructor, Palmer Center for Chiropractic Research, Davenport, IA
Chiropractic Geriatric Patient Care: Adjusting Strategies for Elders

Room 142-A **1b.** **Deanna Bates, D.C., D.A.A.P.M.**
Assistant Professor, Division of Chiropractic Science, Logan College of Chiropractic, Chesterfield, MO
Private Practice
Myofascial Pain Diagnosis and Treatment in the Geriatric Population

Room 156-B **1c.** **Peter Schoeb, D.C.**
Assistant Professor, Division of Chiropractic Science, Logan College of Chiropractic, Chesterfield, MO
Private Practice
Functional Foods in the Golden Years: Essential Fatty Acids

Room 156-A **1d.** **G. Douglas Anderson, D.C., D.A.B.C.N.**
Private Practice, Brea, CA
Introduction to Herbal Medicine Including an In-depth Review of the Top Herbs Used for Common Geriatric Disorders

2:45-3:00PM **Break/refreshments**

3:00-4:30PM **Workshop II**

Room 142-B **2a.** **George Ulett, M.D., Ph.D.**
Clinical Professor of Psychiatry, Institute of Mental Health, University of Missouri School of Medicine, Columbia, MO.
Scientific Chinese Acupuncture in the New Millennium

Room 142-A **2b.** **Songping Han, B.M., Ph.D.**
Senior Research Investigator in Metabolic Research Bristol-Myers Squibb Company, Princeton, NJ
Neuropharmacology of Electroacupuncture

Room 156-B **2c.** **John E. Morley, M.B., B.Ch.**
Dammert Professor of Gerontology Director, Division of Geriatric Medicine at Saint Louis University School of Medicine, St. Louis, MO
Nutritional Assessment of the Elderly

Room 156-A **2d.** **Judy Silvestrone, D.C.**
Clinical Professor, New York College of Chiropractic Private Practice, Senaca Falls, NY
Typical Neurologic Changes with Aging: Recognition and Proactive Management of their Psychosocial Impact

5:00-6:00PM **Reception**

PROGRAM – SUNDAY, APRIL 30, 2000

8:30 - 10:00AM **Workshop III**

Room 142-B **3a.** **Jacqueline Bougie, D.C.**
Professor, Department of Diagnosis, Los Angeles, CA
Consultant, Consensus Health Corporation, Consensus Health Plan, Associate
Rehabilitation Strategies for Gait and Balance

Room 142-A **3b.** **Richard Erhard, D.C., P.T.**
Head of Physical Therapy and Chiropractic Services
Comprehensive Spine Center
University of Pittsburgh Medical Center, Pittsburgh, PA
Diagnosis and Treatment of Lumbar Spine Stenosis

Room 156-B **3c.** **Sherron Marquina, D.C.**
Private Practice, St. Louis, MO
The Mechanisms of Homeopathy: Implications for Geriatric Health Care

Room 156-A **3d.** **John E. Morley, M.B., B.Ch.**
Dammert Professor of Gerontology Director, Division of Geriatric Medicine at Saint Louis University School of Medicine, St. Louis, MO
Alternative Medicine: The Good, the Bad, and the Ugly

10:00- 10:15AM **Break/refreshments**

10:30 -12:00PM **Workshop IV**

Room 142-B **4a.** **Kenneth Stein, M.D.**
Attending Staff Physician, Department of Emergency Medicine and Critical Care, St. Anthony's Medical Center, St. Louis, MO
Magnetic Fields and Health

Room 142-A **4b.** **Nelson Marquina, D.C., Ph.D.**
Director of Research,
Logan College of Chiropractic, Chesterfield, MO
James Copeland, D.C.
Staff Clinician, Logan College of Chiropractic Health Center, Chesterfield, MO
Auriculotherapy as an Adjunctive Healthcare Modality in Geriatric Care

Room 156-B **4c.** **Cherri Hendrix**
Director, Center for Personal Empowerment, Columbia, IL
Behavioral and Cognitive Counseling Techniques for the Elderly
(this section does not provide AMA credit)

Room 156-A **4d.** **Ken Walton, Ph.D.**
Director, Neurochemistry Laboratory, Maharishi University of Management, Fairfield, IA
Anti-Aging Effects of Meditation: The Transcendental Meditation Program Reverses Both Cognitive and Physical Declines

12:00-12:30PM **Closing Keynote**

142-B **Ian Douglas Coulter, Ph.D.**
Professor, UCLA School of Dentistry, Los Angeles, CA, Health Consultant, RAND Corp, Santa Monica CA, and Research Professor, Los Angeles College of Chiropractic, Los Angeles, CA
The Horizons of Complementary and Alternative Health Care

Neuroimmunology of Emotion

Candace Pert, Ph.D.

Neuroimmunology of Emotion

The keynote speaker for the symposium is Candace Pert, Ph.D., research professor in the Department of Physiology and Biophysics at Georgetown University Medical Center, Washington, DC. She has been featured on Bill Moyers PBS special "Healing and the Mind" and has published over 200 scientific papers. Over the course of 25 years, Dr. Pert's research has revealed the information carrying molecules known as peptides and their cellular receptors which govern every system of the body. Her well known book Molecules of Emotion - Why You Feel the Way you Feel (Scribner 1997) described this activity as a dynamic flow of information within our psychosomatic network which integrates our physiology and is the biological foundation of our mind and emotions. According to Dr. Pert, "we know that the immune system, like the central nervous system, has memory and the capacity to learn. It can be said that our intelligence is located not only in the brain, but in cells throughout the body and that the traditional separation of mind and emotions from the body is no longer valid." (C. Pert: Molecules of Emotion).

An Evidenced-Based Update on Spinal Manipulation

Robert Mootz, D.C.

An Evidenced Based Update on Spinal Manipulation

Defining Manipulation, Mobilization, Adjustment, Supportive and Complementary Therapies

Defining Chiropractic

Safety Issues and Side Effects with Spinal Manipulation

Comparing Manipulation to Alternative Interventions and Placebo

Overview of Research Studies on Spinal Manipulation
- -Acute LBP
- -Subacute and chronic LBP
- -Meta-analysis for acute LBP
- -Acute and chronic neck pain
- -Headache
- -Non-spine related disorders

Research Issues for Spinal Manipulation

Health Care Policy Issues

Soyfoods as Possible Alternatives to Hormone Replacement Therapy

Mark Messina, PhD, MS, CNS

Soyfoods as Possible Alternatives to Hormone Replacement Therapy

1. Isoflavones (phytoestrogens)
a. Definition
b. Absorption/metabolism
c. Physiological attributes

2. Soyfoods/Isoflavones and Cancer Risk
   a. Breast cancer
   b. Prostate cancer

3. Soyfoods/Isoflavones and Heart Disease
   a. Cholesterol reduction
   b. LDL-oxidation
      1. Arterial compliance
      2. LDL oxidation

4. Soyfoods and Osteoporosis
   a. Animal studies: soy protein and isoflavones
   b. Human studies: soy protein and isoflavones

6 Soyfoods and Hot Flashes

7. Conclusions/Summary

Bioelectromagnetics and Energy Medicine

Beverly Rubik, Ph.D.

Bioelectromagnetics and Energy Medicine

I. Introduction to bioelectromagnetics, a frontier science

A. The interaction of low-level electromagnetic (EM) fields with life.

B. EM spectrum; ionizing & nonionizing fields

C. Wave concept; frequency, modulation, and other key parameters

II. Geophysical fields and life

A. Earth's magnetic field & life's rhythms

B. Organisms' responsiveness to very weak EM fields

III. The role of EM fields in regeneration experiments in animals

IV. Medical applications of very weak EM fields

A. Bone regeneration

B. Neuroendocrine modulation

C. Other applications: soft-tissue regeneration; low level lasers for pain control and accelerated wound healing

D. Static magnets for pain control and other conditions

E. EAV in diagnosis and treatment

V. General characteristics of EM field effects on organisms

A. Biologically and physically nonthermal

B. Narrow windows of response with respect to frequency, intensity, modulation, and exposure duration

VI. Theories of how weak EM fields interact with life

Chaos theory

Molecular, ion channels, and other chemical target theories

The concept of electromagnetic bio-information;
new concepts of information in biology and medicine

Global organizing field theory of the organism

VI. Scientific controversies in bioelectromagnetics

A. FDA issues

B. Difficulty in reproducibility

C. No consensus on mechanism of action

D. Lack of integration of research activities

VII. Conclusions and prospects for the future

A. Inexpensive, sustainable, noninvasive, safe treatments for a variety of Conditions

B. Further research and funding necessary

C. Toward a Principle of Complementarily for living systems: particle and wave duality

Chiropractic Geriatric Patient Care: Adjusting Strategies for Elders

Lisa Zaynab Killinger, DC

Chiropractic Geriatric Patient Care: Adjusting Strategies for Elders

Dr. Killinger, a 1983 Palmer graduate, joined the Palmer Center for Chiropractic Research in 1994 as a research instructor. She has authored and co-authored nearly 20 research papers published in peer reviewed chiropractic journals. Her research interests have been primarily focused on the topic of interdisciplinary and geriatric healthcare, since she practiced for several years in that setting. Dr. Killinger has presented her research in geriatrics at numerous interdisciplinary conferences, including the American Society on Aging, the Interdisciplinary Healthcare Conference, and the National Council on Aging. She has directed or assisted on nine US Health Resources and Services Administration contracts related to geriatrics and interdisciplinary program development. She is also involved in descriptive research from the BJ Palmer Research Clinic files, and the Kentuckiana Children's Center files. Dr. Killinger also teaches geriatrics, and has served as the Palmer College Faculty Senate Vice President since 1997. She is currently the elected Secretary of the Chiropractic Section of the American Public Health Association (APHA).

Chiropractic Geriatric Patient Care: Adjusting Strategies for Elders

Dr. Lisa Killinger

- This presentation will provide a brief review of the normal and pathological changes that can occur in the older patient as a result of the aging process and how these changes may influence our chiropractic adjusting strategies. An overview of various chiropractic techniques and the advantages of each to both the doctor and patient will be presented. Office set up, Dr./Patient interaction, and adjusting with an eye on patient safety and comfort will be discussed. Participants will be asked to share their perceptions of the role of chiropractors in geriatric patient care, and on adjusting strategies used in their own practices.

Chiropractic Geriatric Patient Care: Adjusting Strategies for Elders

I. The Role of Chiropractors in Geriatric Health Care

II. Normal Aging
   - A. General considerations
   - B. Osteoporosis
   - C. Stroke
   - D. Orthostatic hypotension
   - E. Other challenges to the chiropractor

III. Safety Issues in office Set-Up and Patient Care

IV. Technique Overview

A. Advantages of various techniques

1. Activator
2. Thompson
3. Logan Basic
4. SOT
5. Other techniques; HVLA

V. Audience Participation

VI. Hands On Demonstrations

Learning Objectives:

The participant will:

- Become familiar with the rationale for using various adjusting strategies in place of high velocity low amplitude adjustments (HVLA) when treating older patients in a clinical setting.

- Become familiar with the application of various techniques as alternatives to HVLA adjusting.

- Gain basic knowledge and hands-on experience in two Mechanically Assisted Procedures - Activator Methods Chiropractic Technique and Thompson Terminal Point Technique, for the care of the older patient.

Myofascial Pain Diagnosis and Treatment in the Geriatric Population

Deanna Bates, DC, DAAPM

Myofascial Pain Diagnosis and Treatment in the Geriatric Population

The purpose of this workshop is to address geriatric pain and disability arising from the myofascia. This source of pain and dysfunction is frequently overlooked in persons of all ages and can become more chronic and disabling with age as tissue healing slows and fibrosis increases. Etiology, clinical presentation, diagnosis and treatment of myofascial pain syndromes will be explored giving particular consideration to the special needs of the geriatric population. Fibromyalgia will also be defined and differentiated from myofascial pain syndromes.

A myofascial trigger point is a hyperirritable area within a taut band of skeletal muscle or its fascia, which is painful on compression and can give rise to characteristic patterns of referred pain, tenderness, and autonomic phenomena. These trigger points are anatomically and biochemically altered tissue within muscle. A myofascial pain syndrome involves signs and symptoms associated with active trigger points in one or more muscles. Referred pain of myofascial origin can be confused with pain of neurological, inflammatory, vascular, neoplastic or psychogenic origin. As these syndromes may mimic many other conditions, a very thorough evaluation including orthopedic, neurological, biomechanical, radiographic, laboratory and myofascial is crucial in order to arrive at the correct diagnosis and treatment plan. Myofascial syndromes may also exist concomitantly with other conditions in the aforementioned categories particularly in the geriatric population. Pain of muscular origin typically waxes and wanes in relation to muscular activity and body position. Patterns of myofascial referral are based on embryological development. Tissues that are embryologically related will often refer to the same area. For example, the supraspinatus, infraspinatus and shoulder joint capsule are all primarily supplied by the fifth cervical nerve root and therefore tend to refer pain along the same dermatomal or sclerotomal pattern. This contributes to the confusion of myofascial pain syndromes with those of neurological origin.

Diagnosis of a myofascial pain syndrome includes the following: regional pain, a predictable pattern of pain referral, a taut band present in the muscle, an exquisitely tender spot within the taut band, local twitch response to snapping across the taut band and restriction of motion of the body part controlled by the muscle.

Fibromyalgia is estimated to effect 3.5 percent of the general population. Diagnostic criteria include: widespread pain of more than three months duration which is both above and below the waist, sleep disturbance with morning fatigue and stiffness, and tenderness
of at least 11 of 18 predictable points. Myofascial treatment techniques are immensely helpful but will not eliminate this condition.

Tissue healing in response to insult normally involves an initial inflammatory phase which gradually leads to the formation of granulation tissue with infiltration of fibroblasts. Acute inflammation may on occasion lead to chronic inflammation with increased fibrous tissue deposition. Young and healthy individuals may heal well with restoration of vascular and neurological supply. In the older population however healing occurs at a slower rate and with larger amounts of fibrous “scar” tissue. This is the case with all connective tissues whether in the skin, bone, cartilage, tendon, ligament or muscle tissue. Muscular composition and function

are altered with the aging process. These changes include a generalized decreased in lean body mass with myofibril atrophy and reduced oxygen uptake.

In this workshop we will explore the diagnosis and treatment of myofascial triggerpoints. Specific examples of conditions particularly common in the geriatric population will be emphasized. Treatment methods include manual technics, physical therapies, nutrition, exercise, injection and dry needling, acupuncture and joint manupulation. This hands-on workshop will focus on a variety of manual technics of myofascial therapy. Our goal is to increase an awareness of this frequently overlooked condition in order to improve function and quality of life in the aging population.

References:

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Functional Foods in the Golden Years: Essential Fatty Acids

Peter Schoeb, D.C.

Introduction to Herbal Medicine Including an In-depth Review of the Top Herbs Used for Common Geriatric Disorders

G. Douglas Andersen, DC

Introduction to Herbal Medicine Including an In-depth Review of the Top Herbs Used for Common Geriatric Disorders

I. Theories of Use:

- Non Toxic
- All Natural
- Balances the System
- Helps the Body Help itself

II. Distribution / Availability:

- Health Food Stores
- Multi-level
- Internet
- Availability spreading to come pharmacies, supermarkets and club stores

III. Sources of Recommendations – Layman

- Store Employees
- Multi level sale people
- Internet
- Not afraid to guarantee cures
- No liability

IV. Sources of Recommendation – Health Care Professionals

- Knowledge of Physiology, biochemistry and pathology leads to questions
- Science generally invalidates lay explanations
- Recommendations are more conservative due to a variety of issues
- Health care professionals are both accountable and liable

V. Source of Information - Literature

- Numerous books, pamphlets and periodicals available in book stores, libraries, health food stores
- Information also available over Internet
- Articles on herbals now appear almost daily in newspapers across the country
- T.V. news, health segments regularly highlight herbals
- Much of the information available has not been critically reviewed or scientifically tested

VI. Biological Questions

- Mechanism of action
- Measurements of potency
- Active ingredients
- Synergistic compounds
- Antagonistic compounds
- Quality control including manufacturing, bottling, transporting, and distributing
- Quality control – raw materials, proper processing, final product, bio-activity, and shelf life
- Standardization

VII. Geriatric Market

- Growing market – huge potential
- Aging baby boomers more likely than their parents to use
- Life extension/anti-aging movements will generate even more sales

VIII. Medical Angle

- Medical bias against supplements actual and perceived
- Conspiracy fears /pharmaceutical industries
- Anti drug philosophies are increasing
- Very little alternative research is negative
- Most negative research is from medical establishment
- Alternative community cries foul and conspiracy
- All negative research on medical procedures and pharmaceuticals is also from the establishment

IX. Keeping Current

- Plethora of new compounds with impressive claims constantly entering the market place
- Initial theories often based on historical use and extrapolation from animal and laboratory studies
- Generally a long lag time before human trial appear
- Sellers are highly motivated to constantly enter market with new miracle products
- Very difficult for reputable practitioners to keep current

X. In Depth Review – Of the Top 7 Herbs for Geriatrics

- Bilberry
- Echinacea
- Ginkgo Biloba
- Grape Seed / Pine Bark Extracts
- Saw Palmetto
- St. John's Wort
- Valerian

The Review Will Include -

- Scientific name
- Sources
- History & traditional claims
- Literature supported effects
- Side Effects
- Dosing
- Summary

IF TIME PERMITS – A Brief review of the Scientifically Proven Effects of the following 20 Top Selling Herbs in the United States

- Echinacea ***
- St. John's Wort ***
- Ginkgo Biloba ***
- Garlic
- Saw Palmetto ***
- Ginseng
- Goldenseal
- Aloe
- Siberian Ginseng
- Valerian ***
- Cranberry
- Milk Thistle
- Cats Claw
- Grape Seed Extract ***
- Bilberry ***
- Cascara Sagrada
- Cayenne
- Dong Quai
- Ma Huang
- Fever Few

*** Covered In Depth in Part X. ***

Scientific Chinese Acupuncture in the New Millennium

George Ulett, M.D., Ph.D.

Scientific Chinese Acupuncture in the New Millennium

Background:

Before the beginning of the first Millenium, in the first Han dynasty, magical ideas were grafted onto the discipline of Confucianism. Examples were chi, "principle" lateral called "body energy". Yin/yang, opposites of cosmic and micro-cosmic body balancing, and numerological beliefs such as five element theory of world and body composition. Such theorizing was dogmatic and non-experimental and has never risen above the level of an elaborate pseudo-science. Ancient Chinese physicians stimulated pain, touch and temperature skin sense organs using slivers of bone and needles, massage and acupressure and heating by moxibustion. They explained their procedures in terms of the existing metaphysical theories.

Acupuncture was introduced into the U.S. as a "cure all" with much New Age media hype. The public clamored for miracle cures and states certified "acupuncturists" with lengthy courses in Chinese philosophy rather than medical knowledge. Treatments were a mystical ritual with needles. Explanations of acupuncture mechanisms remained nonscientific although NIH in 1972 and 1997 supported traditional Chinese acupuncture as a treatment for pain. They did, however, state that sound research was lacking and that placebo factors should not be overlooked.

By 1882 China had recognized acupuncture as unscientific and banned its teaching in the Imperial College of Medicine. Acupuncture was again popularized in the 1950'2 as a means to supply medical treatment to China's million by Maoists faced with a paucity of well trained physicians. Hurriedly briefed barefoot doctors rushed to the countryside spreading the belief that all illnesses would respond favorable o needle manipulation. As we enter the new millennium China is again moving to ban superstitions, while the U.S., caught up in the alternative Medicone craze, embraces the mystical ritual of needles.

Evidence Based Acupuncture:

For the last 30 years Professor JiSHeng Han and associates at the Neuroscience Research Institute of Beijing Medical University carried on extensive research upon acupuncture. They found that mystical needle rituals were no longer necessary. Their scientific studies using animals and humans demonstrated that electrical stimulation of selected motor points on the body produced the gene expression of healing CNS neuropeptides. Site specificity, the major emphasis of traditional Chinese acupuncture, is of but secondary importance. Han studied the anatomy and neurochemistry of the gate-theory and found that serotonin and opioids were essential for activating pain control circuits. Serial samples of CSF in humans subjects receiving acupuncture demonstrated that specific frequencies of current produced specific neuropeptides. Two hertz, for example, was specific for endorphins.

Clinical Studies:

Han showed that acupuncture could assist analgesia thus educing the need for anesthetic drugs by up to 50%. He found the HANS stimulator useful for the treatment of heroin addiction and that is produced lasting improvement in the treatment of chronic pain.

HANS, (Healing Assisted by Neuro-electric Stimulation), in the practice of psychiatry and psychosomatic medicine will be described used both alone and in combination with other treatment modalities. A true mind/body method of conditioned healing will be described as a technique that blends physiology and psychology.

Technique:

There will be a hands-on demonstration using the HANS stimulator as applied in a variety of clinical settings. Ample time will be allowed for questions and answers.

Neuropharmacology of Electroacupuncture

Songping Han, BM, PhD

Nutritional Assessment of the Elderly

John Morley, M.B., B.Ch.

Typical Neurologic Changes with Aging: Recognition and Proactive Management of their Psychosocial Impact

Judy Silvestrone, D.C.

Typical Neurologic Changes with Aging: Recognition and Proactive Management of their Psychosocial Impact

The average American has gained 28 years on their life span since the turn of the 20th century. As mortality decreases, morbidity increases. Practitioners can expect to see more patients with subclinical functional loss with significant impact effect on quality of life. This presentation will highlight the expected increase in subtle neurologic changes in the elderly. The necessity of, and skills for, detection and treatment of subclinical neurological changes by health care professionals, along with recognition and management of their secondary effects, are discussed.

Special sense alterations include presbycusia, presbyopia, hyposmia or anosmia and altered gustatory sensation. Visual impairment occurs due to changes in the lens, cornea, retina, pupillary dilators and visual cortex. Routine evaluation of cranial nerves II, III, IV, and VI can detect most changes. Many anatomic changes are partly preventable by use of UV protectant eyewear and antioxidant use and appropriate protection of the cornea. Secondary impacts of these changes include loss of the ability to drive safely, changes in dependency, loss of mental stimulation and possible depression.

Sensory, neural, mechanical, and metabolic presbycusia and central neural pathway changes may alter hearing. Each type has individual characteristics and impacts auditory acuity, sound localization and speech discrimination differently.
Simple tactics such as lip-reading, change in voice tone and eliminating sources of extraneous noise can assist in prevention of social isolation and withdrawal. There exists evidence for treatment of tinnitus with zinc supplementation and manipulative therapy.

Taste and olfaction impact the selection, preparation and enjoyment of foods. They also assist in detection of danger from noxious substances or tainted food sources. Difficulty detecting tastes while in mixture and greatly increased threshold of perception for odors contribute to these changes. Simple strategies for handling foods and supplementing taste include adding salt (as allowed), lemon or salt substitutes at the table, and freezing or eliminating leftovers promptly.

Elderly patients should be routinely questioned about alterations in sleep pattern, memory, incontinence, thermoregulation and postural hypotension. Normal age-related effects include changes in sleep pattern, thermoregulation and some areas of memory. Many of these can be tolerated or controlled through awareness and simple habit training. Personality changes and incontinence are not a a normal consequence of aging and should prompt further examination. The source of incontinence must be accurately diagnosed and can be conservatively managed in most cases.

Motor changes range from barely discernible to significant disability. Resultant functional losses are influenced by the presence of upper motor, extrapyramidal and sensory lesions. Generally, slowing of skilled movements and alteration of gross movements are seen. Muscle itself undergoes wasting and there is loss of fiber

elasticity with increased susceptibility to avulsion. Distal lower extremity reflexes may become hyporesponsive and some upper motor neuron release reflexes may be seen. Without neurologic deficit, most intrinsic motor changes can be addressed through directed activity.

Sensory changes are multifactorial: Loss of receptor density and sensitivity, change in peripheral neurons (especially prominent in the lower extremity.) As normal regeneration occurs throughout adulthood, lack of replacement may be due to loss of trophic substances. (This may explain loss of axoplasmic transport in long bipolar neurons of lower extremity.) Vibration, tactile sense and proprioception are variously effected. Proprioceptive tasks are performed better when time constraints are eliminated. Coupled with visual changes, this increases the risk of falls. Safety strategies can include use of textural colored striping of stair edges, elimination of low obstacles (scatter rugs, low profile furniture) and motion or light-detecting illumination.

The health needs of older individuals will revolve primarily around the maintenance of physical independence and not crisis care. The majority of elderly desire a practitioner who is less authoritarian, more knowledgeable in gerontologic changes and will assist them in becoming responsible participants in their health care regimen. Part of this responsibility lies in routine screening for functional neurologic losses and their associated psychosocial impacts. Only then can strategies for living with these changes be developed in consort with the patient.

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Rehabilitation Strategies for Gait and Balance

Jacqeline Bougie, D.C.

Rehabilitation Strategies for Gait and Balance

Low Tech Approach To Improving Balance and Mobility an Aged Population

Jacqueline D. Bougie, DC

The purpose of this workshop is to provide an overview of a low-tech approach to improving balance and mobility in an aged population. The Supplement of Aging questionnaire used in the 1984 National Health Interview Survey showed that 19% of those age 65 years and over had difficulty walking and 24% had difficulty with heavy housework.[1] In the United States the lifetime risk of hip fractures has been estimated at 40% in white women aged 50 years or more and 13% in white males.[2] It is predicted that the US hip fracture rates will increase from 250,000 in the 1980s to 650,000 by 2050.[3]

This workshop will demonstrate the tools used in assessing balance, show the strategies used to maintain balance and how to train them, and describe the systems used for balance and how to train them. Tools used will be gym balls, therabands, steps, chairs, foam rollers, medicine balls, and dyna disks.

At the conclusion of the workshop, participants will understand what tools to use for outcomes assessment and have a basic understanding of a low-tech approach to balance and mobility. [1]

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Diagnosis and Treatment of Lumbar Spine Stenosis

Richard Erhard, DC, PT

Diagnosis and Treatment of Lumbar Spine Stenosis

I. Classification

- a. Congenital
- b. Acquired

II. Pathoanatomy

- a. Static
- b. Dynamic

III. Diagnosis

- a. Imaging
- b. Clinical

IV. Treatment

- a. Surgery
- b. Epidural injection
- c. Noninvasive care

The Mechanisms of Homeopathy: Implications for Geriatric Health Care

Sherron Marquina, D.C.

The Mechanisms of Homeopathy: Implications for Geriatric Health Care

Clinical evidence and homeopathic principles suggest that the appropriate use of homeopathy may reduce the adverse effects of medications, reduce the multiplicity and interactions of other medications, and reduce drug induced nutritional deficiencies. These advantages seem to position homeopathic applications particularly for the geriatric population to potentially reduce overall healthcare costs in this population. Additionally, homeopathic remedies themselves are not known to have side effects, or to interact with medications. So what fuels controversy about homeopathy, even in the complementary and alternative healthcare arena? Often labeled as without explanation or mechanism, it shares the early historical legacies of aspirin and chiropractic: demonstrated clinical impact without experimental validation or consensus on mechanisms.

Current scientific models for the mechanisms of homeopathy will be discussed, including biochemical and bioelectromagnetic dynamics. Healthcare management issues derived from these mechanisms will be presented.

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Alternative Medicine: The Good, the Bad, and the Ugly

John Morley, M.B., B.Ch.

John E. Morley, M.D.

John Edward Morley, M.B., B.Ch. completed his medical degree at the University of Witwatersrand in Johannesburg, South Africa in 1972. After completing his internal medicine in South Africa he did a fellowship in endocrinology at UCLA. He was subsequently a staff endocrinologist at the Minneapolis VA Medical Center and the University of Minnesota. In January 1985, he moved to California to become Director of the Geriatric Research, Education, and Clinical Center, Sepulveda VA Medical Center and a Professor of Medicine, University of California, Los Angeles. He is board certified in internal medicine, endocrinology, and geriatric medicine. He has edited 16 books including Medical Care in the Nursing Home, Geriatric Nutrition and Endocrinology of Aging. He has published over 700 papers, with a major research emphasis on the role of neuropeptides in the modulation of hormonal responses and behavior as well as nutrition and hormones in older persons. In July 1989, Dr. Morley moved to St. Louis, Missouri to become the Dammert Professor of Gerontology and Director, Division of Geriatric Medicine at Saint Louis University Medical Center and Director of the Geriatric Research, Education, and Clinical Center at the St. Louis Veterans Affairs Medical Center. Dr. Morley will provide workshops for the assessment of geriatric nutrition and an overview of alternative medicine.

Magnetic Fields and Health

Kenneth Stein, M.D.

Magnetic Fields and Health

In America in recent years there has been much interest in Magnets and their clinical applications. Retail sales of magnets in the US are over $100 million/year. However magnets have been popular in Europe for decades and in Asia for centuries.

There are several advantages to the use of magnetic fields in a clinical setting. These include usefulness in treating conditions where standard medical care is either ineffective (i.e. neuropathic pain) or associated with many side-effects (chronic pain, arthritis). Magnetic therapy offers the possibility of targeting therapy to a localized region without having to use a systemic medicine which may have effects far from the target organ.

There is a growing body of research investigating clinical applications of both static & electromagnetic fields. Particular interest has focused on the mechanisms of action of these fields. Many effects have been discovered including:

- Effects on cell membrane calcium & sodium ion channels.
- Induction of protein synthesis (including stress proteins and growth proteins).
- Increased production of extracellular matrix molecules.
- Effects on enzyme function (including calmodulin).

There is also concern about the possible side effects of electromagnetic fields.

Some of the many areas of research for the use of magnetic fields include:

- Acute & chronic musculoskeletal pain
- Neuropathic pain
- Post-polio pain syndrome
- Fibromyalgia
- Depression
- Seizures
- Tumor growth & angiogenesis
- Multiple sclerosis
- Chronic fatigue syndrome

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Auriculotherapy as an Adjunctive Healthcare Modality in Geriatric Care

Nelson Marquina, PhD, DC
James Copeland, DC

Auriculotherapy as an Adjunctive Healthcare Modality in Geriatric Care

Introduction to Auriculotherapy

Auriculotherapy is a therapeutic modality wherein the aurical of the external ear
Is stimulated to alleviate pain and other health conditions in other parts of the body.
It was originally based on ancient Chinese acupuncture, but the somatotopic correspondence of specific parts of the body to specific parts of the ear was actually developed in France by Paul Nogier, M.D.

Various forms of treatment used in Auriculotherapy:

1. Traditional Chinese needle acupuncture.
2. Chinese ear seed treatment (a small seed or BB which is taped to the acupuncture point and then massaged at intervals.
3. Electrical stimulation with a point finder treatment device (usually micro-current).
4. Laser light or infra-red light stimulation (developed and usued primarily in Europe.
5. Teishin stimulation (spring loaded treating device.

Various Conditions Frequently Treated:

Among the most common conditions which have benefited from Auriculotherapy, those which are seen most often include:

1. Low back pain
2. Neck and thoracic pain
3. Headaches
4. Tmj and dental pain
5. Digestive Problems
6. Constipation
7. Extremity and joint pain

Electro-Auriculotherapy:

The most popular method of delivering treatment to the ear acupoints in the United States is through the use of a micro-current point detector-stimulator. The most Commonly used device is the Stim-flex 400, manufactured in the U.S.

This device can provide a successful treatment for most pain conditions in under 5 minutes in most cases. Many conditions take only 4 to 5 visits to clear up mild or moderate pain. Traumatic and more chronic cases may take longer.

Behavioral and Cognitive Counseling Techniques for the Elderly

Cherri Hendrix

Behavioral and Cognitive Counseling Techniques for the Elderly

The focus of this workshop will be to understand and to unravel the complexities of language; to be able to communicate effectively and to have the ability and the intention to understand what the client (patient) is trying to express. This will enable the health care practitioner to increase the success of any intervention provided.

Enhanced communication can improve rapport, increase acceptance of treatment, and encourage client participation in their own recovery. This is especially important when dealing with our elderly population. Not only do they need the specialized understanding that each individual benefits from, but the health care practitioner needs to take into account that the elderly may have many different values and beliefs, as well a very different way of speaking and hearing.

In NLP terms we call this specialized attention to a client's perception, "Respect for their model of the world." When dealing with the geriatric population from "Their model of the world" we are much more likely to strike a receptive cord.

During the bulk of this experiential workshop, participants will gain an understanding of how to increase their success at communication. Topics covered will be

1. How flexibility plays a crucial role in successful communication
2. Ways to develop your powers of sensory acuity so that you have a greater understanding of what information the client actually perceives. Learning to make sensory based conclusions, rather than mind reading.
3. Understanding the NLP concept of rapport. What it is, and why it is important. How to facilitate this useful tool.
4. Understanding the components of communication. Becoming aware that words are only about 7% of our communication. Learning the other parts of communication and how to be effective in their use.
5. Gain an understanding of the different representation systems that people use, and why it is important to speak to them in "their language."

To conclude the workshop, a brief introduction will be given about progressive relation, using the components of effective communication as previously discussed. Participants will be led through a personal experience of progressive relaxation as well as a hypnotic intervention, which allows the client to learn how to gain control of physical sensations in the body.

Once the clients has control of some form of discomfort, they or their health care practitioner, can transfer or change that sensation to be more acceptable. This method was used extensively used by Dr. Milton Erickson in his treatment of patients who were experiencing pain.

This enables the client to feel that they have more control in their own recovery, which is a very empowering state. It also provides a method to reduce or eliminate pain and/or discomfort without the use of, or with decreased amounts of drugs or medication.

While natural methods of achieving optimal health are desirable for anyone, it is of extreme importance for the elderly, who have greater susceptibility to the negative effects of drugs.

Participants will be provided with handouts outlining the basic information presented in the workshop, as well as a script covering a sample of progressive relaxation.

Anti-Aging Effects of Meditation: The Transcendental Meditation Program Reverses Both Cognitive and Physical Declines

Ken Walton, Ph.D.

Anti-Aging Effects of Meditation: The Transcendental Meditation Program Reverses Both Cognitive and Physical Declines

Kenneth G. Walton, Ph.D., Associate Professor of Neurochemisty, Departments of Chemistry and Psychology, and
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Techniques of meditation and relaxation are reported to prevent or reverse changes associated with old age, including cognitive declines,[1] increased risk factors for cardiovascular and other diseases,[2-4] and even premature death.[1,5] However, only a few of the hundreds of studies directly compare the effectiveness of different techniques. As a result, many clinicians and researchers have mistakenly assumed that all such techniques have similar effects.[6]

Recent comparisons based on statistical meta-analysis, which combines data on effect sizes from many different studies, clearly demonstrate a wide range of effectiveness for meditation and other alternative or complementary approaches.[6] The Transcendental Meditation (TM) technique, for example, which is based on the oldest living tradition of knowledge, the Vedic tradition, is significantly more effective than a variety of other approaches in reducing risk factors such as trait anxiety,[7] high blood pressure,[8] and use of tobacco, alcohol and illegal drugs.[6,9] In general, techniques based on long traditions of knowledge are more effective than the modern approaches modeled after them.[6] This may be because traditional techniques have subtle but important components that are neglected or altered in the modern clinically derived versions. This seminar will not only summarize the clinical studies on meditation to date but will also examine the research on two important questions regarding these results, namely, "What makes meditation effective?" and "Why are some techniques more effective than others?"

Before the first of the more than 600 studies on the TM technique was published, Maharishi Mahesh Yogi, who forty years ago brought this technique out from the Vedic tradition in a form suitable for people in any culture and in all walks of life, asserted that it is the ability of the technique to promote a state called "transcendental" or "pure" consciousness that gives it its effectiveness. Most of the 600 studies have explored the variety and degree of effects of the technique on physical, mental, and social health. However, recently several studies[10-13] confirm the initial reports[14,15] that the experience identified as transcendental consciousness has a neurophysiological signature different from the ordinary three states of consciousness (waking, dreaming sleep, and "deep" sleep), and support the hypothesis that this consciousness state is responsible for many of the benefits attributed to the Transcendental Meditation technique. Thus, although direct physiological comparisons of different types of meditation have been few, the possibility arises that degree of effectiveness is in part due to varying abilities to promote transcendental consciousness.

Perhaps the most profound area of current research on the TM technique concerns its effects on society, particularly when individuals practice the more advanced "TM-Sidhi" program together in a group. Over 40 studies have found that groups as small as the square root of one percent of a given population appear to produce large changes in society, such as reductions in crime and hospitalization rates.[16] These results may be due, in part, to a

neuroendocrine mechanism paralleling one responsible for multiple benefits in the individuals who practice TM.[17,18] In both cases, there are data to support that reduction of stress levels and/or normalization of the hypothalamic-pituitary-adrenocortical axis plays a crucial role.[17-20] This finding implies that if permanent groups could be formed to practice this Vedic technology together, the health and cost-effectiveness benefits this program confers on the individual practitioner (see for example[4,21-23]) might be extended to members of the population who do not practice the technique, giving an overall rise in the health of every member of society at minimal expense. These and other themes will be developed more fully in the seminar.

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The Horizons of Complementary and Alternative Health Care

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The Horizons of Complementary and Alternative Health Care

It was the best of times, it was the worst of times." Charles Dickens.

In many ways this statement by Charles Dickens captures the situation confronting CAM. On the one hand the signs are extremely positive. A significant paradigm shift has occurred within the population in North American with regard to the use of non-medical health care. Two national surveys of adults in the United States have shown not only extensive use of CAM by the population but also that the number using CAM is increasing (from 33.8% of the population in 1990 to 42.1% in 1997). The unconventional pattern of use was more common than the conventional pattern for 5 of the 10 most frequently cited principle medical conditions: back problems, insomnia, headaches, anxiety, and depression. Furthermore, the number of visits for "unconventional care" was estimated to be 425 million visits, which exceeded the number of visits in 1990 for all primary care physicians (388 million).

With the establishment of the Office of Alternative Medicine (OAM), now the National Center for Complementary and Alternative Medicine (NCCAM), this major social shift also became reflected in the nation's most prestigious research institution, the National Institutes for Health (NIH). The current budget for the NCCAM is $50 million and to date they have funded 10 university based centers for research on alternative/complementary medicine. A Directory of Databases now exists for CAM which is available on a Web site from Columbia University. An increasing number of insurance companies also cover CAM treatment.

In the United States at least 65 medical schools out of 125 accredited schools have programs in complementary and alternative medicine and this is increasing annually. The schools included are some of the most prestigious medical schools in the United States such as Yale, Duke, Harvard, Cornell, Boston, Case Western Reserve, Johns Hopkins, UCSF and UCLA.

Surveys of medical providers indicate that physicians perceive some CAM therapies as moderately effective and 50% of family physicians thought CAM represents legitimate medical practices. A recent publication of the AMA reported that AMA Archives Journals ranked alternative care among the top three subjects of 86 for the AMA journals to address and that JAMA physicians identified it as 7th out of 73 of the most important topics for publication in the journal. Furthermore, continuing education courses are being offered for medical physicians.

As the popularity of CAM has been documented, so too has grown the call for subjecting CAM to rigorous research. The NCCAM in 1999 awarded its first grant to RAND to establish the Center for Evidenced Based Practice in CAM. But researching the alternatives has posed a series of challenges. There has been a lively debate, particularly about the most appropriate methods to be used. On the one side, some have argued that the strict methods of the random controlled clinical trial are inappropriate to assess outcomes for alternative health care. However, successful trials have been done, and although qualitative methods may be needed to supplement more quantitative methods, it is not self obvious that alternative care does not lend itself to traditional research methods.

The Office of Alternative Medicine recognized from the beginning that major challenges for research of the alternatives will be the recruitment of alternative providers into collaborative research; the providing of research skills for alternative providers; and the establishment of data bases for conducting clinical research. In recognition of this, OAM conducted a methodology conference in conjunction with the Cochrane Collaboration on quality research on complementary and alternative research. This reinforced the plea for a single standard for investigating CAM and conventional care. So increasingly the standards of rigorous quantitative methods are being applied to CAM. This led to the proposal of a methodological manifesto articulating 7 principles for CAM research. Texts are now available that explore the range of methodologies needed to investigate alternative and complementary medicine. Such things as audits, assessment of clinical skills, and safety evaluations have all been proposed as methods of assessment for CAM. However, this world of evidenced based practice is a new one, and often an alien one, for most of traditional CAM providers. It remains to be seen if they can adjust appropriately or even rapidly enough to be able to retain what they have developed and kept alive for so long. But there is also a second major challenge. Despite all the concerns in medicine about CAM it is clear that a major paradigm shift is occurring. Within a very short period of time, medicine has moved from simply acknowledging the existence of CAM, to cooperating with CAM to embracing CAM. Increasingly, medicine is incorporating CAM into medical education and practice. Furthermore, this paradigm is increasingly being identified as integrative medicine. This paradigm shift also now has its own journal established in 1998 called Integrative Medicine: Integrating Conventional and Alternative Medicine. By 1998, it was reported that at least a dozen major medical schools had created programs in integrative medicine. While rigorous research of both CAM and conventional health care is seen as the basis for integration there is no guarantee that simple wholesale coopting of CAM will not occur. CAM may thrive in mainstream health care where it satisfies an unmet need. Of course this raises interesting questions. Can the paradigm of the alternative and complementary group survive within allopathic medicine as it is currently practiced? Can the current biomedical paradigm survive in a unified paradigm? This is a much more fundamental question than simply can medicine incorporate (co-opt) the best therapies of CAM into its therapeutic armamentarium. In one sense, CAM may turn out to be the Trojan horse for allopathic medicine.

In this session these and other questions about the future of CAM will be discussed. While it would seem to be clear that CAM has a great future it is not so clear that all the present CAM providers will be participating in this future, or participating in it equally.