

# **Bureau of Naturopathic Medicine**

*A Bureau of the California Department of Consumer Affairs*



## **Findings and Recommendations Regarding Minor Office Procedures**

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*Bureau of Naturopathic Medicine*

**Presented to the California State Legislature**  
**January 1, 2007**

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\* For copies of items listed in the appendix, please contact the Bureau of Naturopathic Medicine at (916) 574-7991 or [naturopathic@dca.ca.gov](mailto:naturopathic@dca.ca.gov)

## **Acknowledgements**

The Bureau of Naturopathic Medicine was directed by the Legislature to consult with physicians and surgeons and licensed naturopathic doctors in developing findings and recommendations regarding the development of scope and supervision requirements of a naturopathic doctor for the performance of minor office procedures. To this end, the Bureau consulted with two naturopathic doctors, two emergency room physicians, and an interested member of the public. These consultants unanimously agreed upon the findings and recommendations presented in this report.

The Bureau would like to acknowledge and thank these consultants for their hard work and dedication. They worked diligently in conducting research and surveys of colleagues in their respective professions. In all recommendation decisions, patient safety and efficacy were given the utmost importance.

As the Bureau Chief, I was impressed by the commitment on the part of each consultant who assisted with the report. They served without compensation, giving graciously of their time to share their vast knowledge and invaluable professional expertise. The report speaks to the facts gathered, research done, and the outcome of specific recommendations.

I am very pleased to have served as the Bureau Chief during the development of this report and to be able to present the report with the unanimous findings and recommendations of the consultants. Without their extensive knowledge, experience, and commitment to the field of naturopathic medicine, this report would not have been possible.

Sincerely,

Tonya Blood, Chief  
Bureau of Naturopathic Medicine

## **Introduction**

Senate Bill 907 (Burton; Chapter 485, Statutes of 2003) established the Naturopathic Doctors Act (the Act) and created the Bureau of Naturopathic Medicine (the Bureau) within the Department of Consumer Affairs to administer the Act. The Act sets up criteria for the licensure and regulation of Naturopathic Doctors (NDs), and establishes a scope of practice for the profession.

SB 907 specified (Sec. 3640.1<sup>1</sup>):

- The Bureau shall make recommendations to the Legislature not later than January 1, 2006, regarding the potential development of scope and supervision requirements of a naturopathic doctor for the performance of minor office procedures.
- The Bureau shall consult with physicians and surgeons and licensed NDs in developing the findings and recommendations submitted to the Legislature.

Assembly Bill 302 (Committee on Business and Professions; Chapter 506, Statutes of 2005) extended the date that the Bureau was to make recommendations to the Legislature to January 1, 2007. The purpose of this report is to fulfill that legislative mandate.

## **Consultants**

The Bureau consulted with two NDs, two medical doctors who specialize in emergency medicine, and one interested member of the public to formulate the findings and recommendations for this report. Their professional biographies may be viewed in the Appendix.

## **Brief History of Naturopathic Medicine**

Naturopathic medicine is one of the oldest continuously licensed health care professions in the country. Its roots lie in German traditions of “Water Cure” or hydrotherapy advocated by Sebastian Kneipp in the mid-19<sup>th</sup> century. Dr. Benedict Lust, considered to be the Father of Naturopathic Medicine, expanded upon European water cure and herbal therapies to develop a comprehensive philosophy and system of health which he brought to the United States around the turn of the century.

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<sup>1</sup> All further section references are to the Business and Professions Code, unless otherwise indicated.

In 1901, Dr. Lust opened the American School of Naturopathy in Manhattan. Its approach emphasized diet, exercise, physical medicine, herbs, and homeopathy as ways to improve and maintain good health. Naturopathic medicine grew quickly as a profession and by 1925 there were approximately 2,500 practicing naturopathic doctors and more than a dozen schools. During this period, regulations were enacted in many states, with about half of the states licensing or regulating naturopathic medicine. This rise in popularity created strong opposition from allopathic medicine, which labeled naturopathic medicine as “quackery.”

Naturopathic medicine experienced a significant decline in popularity from the post World War II era until the 1970s as most health care at that time centered on the allopathic medical model and the rise of sulfa drugs and antibiotics. In the 1970s, with increased interest in holistic and alternative health care, naturopathic medicine experienced a resurgence of interest with expanded educational programs and state licensure. In the past 30 years, naturopathic medicine has experienced dramatic growth with new schools being established, standardization of education and accreditation, and expanded research on safety and efficacy of naturopathic practices. In 2003, California became the 13<sup>th</sup> state to recognize naturopathic medicine and license naturopathic doctors.

### **Naturopathic Medicine Today**

Naturopathic medicine is a distinct and comprehensive system of primary health care that uses natural methods and substances to support and stimulate the body’s self-healing process.

Currently, 14 states, the District of Columbia, and the US territories of Puerto Rico and the U.S. Virgin Islands have licensing laws for naturopathic doctors. The Alliance for State Licensing (Alliance) is a group of representatives from various state naturopathic associations that align with each other to share information, support, and experience in their quest for licensure, under the auspices of the American Association of Naturopathic Physicians. According to the Alliance, the states of Colorado, Florida, Illinois, Massachusetts, Minnesota, New Mexico, New York, and Virginia have introduced legislation during the last year or will be introducing legislation next year. The states of Maryland, Michigan, Nevada, Ohio, Pennsylvania, Texas, and Wisconsin are moving towards legislation in the near future.

Although the scope of practice varies widely from state to state, all naturopathic doctors abide by the same six principles:

➤ **The Healing Power of Nature:**

Naturopathic medicine recognizes an inherent healing process in the person that is ordered and intelligent. The body is capable of healing itself. The role of the naturopathic doctor is to identify and remove obstacles to healing and

recovery and to facilitate and augment this inherent natural tendency of the body.

➤ **Identify and Treat the Cause:**

Naturopathic doctors seek to identify and remove the underlying causes of illness, not merely eliminate or suppress symptoms.

➤ **First Do No Harm:**

Naturopathic doctors follow three guidelines to avoid harming patients:

1. Utilize methods and medicinal substances that minimize risks of side effects, using the least force needed to diagnose and treat.
2. Avoid, when possible, the harmful suppression of symptoms.
3. Acknowledge and work with the individual's self-healing process.

➤ **Doctor as Teacher:**

Naturopathic doctors recall that the origin of the word "doctor" is the Latin word, "to teach." A fundamental emphasis in naturopathic medicine is patient education.

➤ **Treat the Whole Person:**

Naturopathic doctors attempt to take into consideration all the factors that make up patients' lives and affect their health and well-being.

➤ **Prevention:**

Naturopathic medicine emphasizes the prevention of disease, assesses risk factors, and makes appropriate interventions with patients to prevent illness.

Most naturopathic doctors provide primary care natural medicine through office-based, private practice. In states where NDs have been licensed for many years, they often work in collaboration with medical doctors, and routinely refer patients to each other for optimum management of a patient's healthcare.

### **Bureau Information**

The Act, which created the Bureau, was effective January 1, 2004. Before the Bureau could issue any licenses, a Bureau Chief and staff were hired. Equipment was purchased to support the Bureau's activities. Emergency regulations were drafted to implement the Act. An application process was developed, files were set up, application forms and a website were created. The first ND license was issued on January 14, 2005. There are currently 211 newly licensed NDs in California.

The Bureau is staffed by one full-time analyst. The analyst is responsible for all activities of the Bureau, including answering phones, analyzing qualifications for licensure, issuing licenses, responding to correspondence, coordinating

legislative, regulatory, and budgetary activities, preparing reports, and administering all disciplinary and enforcement activities. The Bureau is completely funded by application and licensing fees.

### **Requirements for Licensure**

In order to be licensed as an ND in California, the Act and the California Code of Regulations require an applicant to:

- Have obtained a degree in naturopathic medicine from an approved naturopathic medical school. (Section 3630)
- Pass Parts I and II of the Naturopathic Physicians Licensing Examination [An applicant who graduated prior to 1986 must have passed a state or Canadian provincial exam.] (Section 3631)
- Submit fingerprints, and not have been convicted of any crime that would be grounds to deny licensure. (Sections 144, 480, 3630)
- Request verification of good standing for any other licenses held in California or another state be submitted directly to the Bureau from the licensing entity. (Section 3633)
- Pay to the Bureau an application fee of \$400 and an initial license fee of \$800, prorated, which is renewed biennially (Title 16 C.C.R. § 4240).

### **Furnishing and Ordering Drugs**

If an applicant or ND wishes to furnish or order drugs or dangerous devices, they must first receive a furnishing number issued by the Bureau, and registration with the United States Drug Enforcement Agency, if required. In order to qualify for a furnishing number, the Act requires that an applicant or ND must show evidence of 48 hours of instruction in pharmacology that included the pharmacokinetic and pharmacodynamic principles and properties of the drugs to be ordered or furnished under the provisions of the Act. To comply with this requirement, the instruction must have been offered by one of the following (Title 16 C.C.R. § 4212):

- An approved naturopathic medical school.
- An institution of higher learning that offers a baccalaureate or higher degree in medicine, nursing, pharmacy, or public health.
- An educational institution or provider with standards and course content that are equivalent, as determined by the Bureau.



## **Education and Training**

An applicant for licensure must have graduated from a naturopathic medical education program accredited by the Council on Naturopathic Medical Education (CNME). For accreditation, the schools must meet the following minimum requirements (Section 3623):

- Admission requirements that include a minimum of three-quarters of the credits required for a bachelor's degree from a regionally accredited or preaccredited college or university or the equivalency, as determined by the council.
- Program requirements for its degree or diploma of a minimum of 4,100 total hours in basic and clinical sciences, naturopathic philosophy, naturopathic modalities, and naturopathic medicine. Of the total requisite hours, not less than 2,500 hours shall consist of academic instruction, and not less than 1,200 hours shall consist of supervised clinical training approved by the naturopathic medical school.
- A naturopathic medical education program in the United States shall offer graduate-level full-time studies and training leading to the degree of Doctor of Naturopathy or Doctor of Naturopathic Medicine. The program shall be an institution, or part of an institution of, higher education that is either accredited or is a candidate for accreditation by a regional institutional accrediting agency recognized by the United States Secretary of Education and the Council on Naturopathic Medical Education, or an equivalent federally recognized accrediting body for naturopathic doctor education.
- To qualify as an approved naturopathic medical school, a naturopathic medical program located in Canada or the United States shall offer a full-time, doctoral-level, naturopathic medical education program with its graduates being eligible to apply to the Bureau for licensure and to the North American Board of Naturopathic Examiners that administers the naturopathic licensing examination.

## **Approved Schools**

To be eligible for licensure in California, an applicant must have graduated from one of six approved naturopathic medical schools. Each of these schools has met the requirements listed above for accreditation by CNME. Four of the approved schools are located within the United States and two are in Canada. A brief synopsis of the schools is given below. As can be seen below, the number of hours of courses in minor office procedures required for graduation at the approved schools varies from 42 to 110. More detailed information on each of

the schools, including admission requirements and curriculum may be found in the Appendix.

<u>School</u>	Year Established	Class Size*	Minor Office Procedure Hours Required for Graduation
National College of Naturopathic Medicine Portland, Oregon	1956	81	72 hours
Bastyr University Seattle, Washington	1977	260	66 hours
Southwest College of Naturopathic Medicine and Health Sciences Scottsdale, Arizona	1993	65	70 hours
University of Bridgeport College of Naturopathic Medicine Bridgeport, Connecticut	1996	19	72 hours
Canadian Naturopathic Medical College Toronto, Ontario, Canada	1978	135	42 hours
Boucher Institute of Naturopathic Medicine New Westminster, British Columbia, Canada	2001	16	N/A
* Number of graduates in 2006.			

### **Naturopathic Physicians Licensing Examination**

In order to qualify for licensure, NDs must take and pass Parts I and II of the Naturopathic Physicians Licensing Examination (NPLEX). The NPLEX is a rigorous, standardized licensing examination that is used in all states that license NDs. Administered by the North American Board of Naturopathic Examiners (NABNE), the NPLEX became the first national test, replacing state exams in 1986.

Part I of the NPLEX, the Basic Science Examinations, is designed to test the naturopathic student's skills and knowledge prior to his or her clinical training. Students are encouraged to take this portion of the examination as soon as they

finish their basic science coursework. Part I is composed of five individual exams. Candidates are given 60 minutes to complete each of the five exams:

- Anatomy
- Physiology
- Biochemistry
- Microbiology
- Pathology

A student must pass Part I of the exam before being allowed to sit for Part II.

Part II, the Core Clinical Science Examination, consists of eight separate exams which are designed to test the skills and knowledge that an ND needs in order to practice safely. The eight separate exams in Part II are:

- Physical & Clinical Diagnosis
- Lab Diagnosis & Diagnostic Imaging
- Emergency Medicine
- Botanical Medicine
- Pharmacology
- Nutrition
- Psychology
- Physical Medicine

Examinees have 180 minutes (3 hours) to complete the Physical & Clinical Diagnosis Examination (150 items), 90 minutes to complete the Lab Diagnosis & Diagnostic Imaging Examination (75 items), and 60 minutes to complete each of the other examinations. Part II of the NPLEX is taken over a two-day period.

Beginning with the August 2007 NPLEX Exam administration, the Part II - Core Clinical Science Series will be integrated into a single examination that will include Homeopathy. In comparison to the current exam format which consists of 50 to 150 “stand-alone” questions on each of the eight exams, the integrated exam format will consist of extensive clinical case summaries for which the candidate must answer a series of questions relevant to diagnosis and treatment for each case.

Part I of the examination is also being restructured and updated. The new integrated Part I of the examination will be administered to candidates beginning in 2008.

The Bureau must receive a report with an applicant’s passing scores on both Parts I and II of the NPLEX directly from NABNE before a license will be issued.

The NPLEX is administered twice a year at six different test sites throughout the United States and Canada.

## **Continuing Education**

In order to renew his or her license, an ND must satisfactorily complete 60 hours of approved continuing education biennially. (This requirement is waived for the first renewal.) The continuing education submitted must meet the following requirements (Section 3635):

- At least 20 hours shall be in pharmacotherapeutics.
- No more than 15 hours may be in naturopathic medical journals or osteopathic or allopathic medical journals, or audio or videotaped presentations, slides, programmed instruction, or computer-assisted instruction or preceptorships.
- No more than 20 hours may be in any single topic.
- No more than 15 hours of the continuing education requirements for the specialty certificate in naturopathic childbirth attendance shall apply to the 60 hours of continuing education requirement.

The continuing education requirements may be met through continuing education courses approved by the California Naturopathic Doctors Association, the American Association of Naturopathic Physicians, the Medical Board of California, the California State Board of Pharmacy, the State Board of Chiropractic Examiners, or other courses approved by the Bureau.

## **Scope of Practice**

The Act authorizes an ND to:

- Order and perform physical and laboratory examinations for diagnostic purposes, including, but not limited to, phlebotomy, clinical laboratory tests, speculum examinations, orificial examinations, and physiological function tests (Section 3640(a)).
- Order diagnostic imaging studies, including X-ray, ultrasound, mammogram, bone densitometry, and others, consistent with naturopathic training as determined by the Bureau, but shall refer the studies to an appropriately licensed health care professional to conduct the study and interpret the results (Section 3640(b)).
- Dispense, administer, order, and prescribe or perform the following (Section 3640(c)):
  - (1) Food, extracts of food, nutraceuticals, vitamins, amino acids, minerals, enzymes, botanicals and their extracts, botanical medicines, homeopathic medicines, all dietary supplements and nonprescription drugs as defined

by the federal Food, Drug, and Cosmetic Act, consistent with the routes of administration as specified.

- (2) Hot or cold hydrotherapy; naturopathic physical medicine inclusive of the manual use of massage, stretching, resistance, or joint play examination but exclusive of small amplitude movement at or beyond the end range of normal joint motion; electromagnetic energy; colon hydrotherapy; and therapeutic exercise.
  - (3) Devices, including, but not limited to, therapeutic devices, barrier contraception, and durable medical equipment.
  - (4) Health education and health counseling.
  - (5) Repair and care incidental to superficial lacerations and abrasions, except suturing.
  - (6) Removal of foreign bodies located in the superficial tissues.
- Utilize routes of administration that include oral, nasal, auricular, ocular, rectal, vaginal, transdermal, intradermal, subcutaneous, intravenous, and intramuscular (Section 3640(d)). [The Bureau's Regulations further specify that an ND may only utilize the ocular and intravenous routes of administration if he or she is clinically competent in those areas.]
  - Independently prescribe epinephrine to treat anaphylaxis, and natural and synthetic hormones.
  - Furnish or order drugs, including Schedule III-V Controlled Substances under supervision of a medical doctor, with requirements for standardized procedures and protocols identical to those for nurse practitioners (Section 3640.5).

The Act restricts an ND from performing any of the following functions (Section 3642):

- Prescribe, dispense, or administer a controlled substance, except as authorized.
- Administer therapeutic ionizing radiation or radioactive substances.
- Practice or claim to practice any other system or method of treatment for which licensure is required, unless otherwise licensed to do so.
- Administer general or spinal anesthesia.
- Perform an abortion.
- Perform any surgical procedure.
- Perform acupuncture or traditional Chinese and Asian medicine, including Chinese herbal medicine, unless also licensed in California as an acupuncturist.

## **CONSULTANT FINDINGS**

### **California's Need for Access to Competent Medical Care**

The inclusion of a provision for Minor Office Procedures in the Act was based in part on serving underserved citizens of California, particularly those in urban centers and rural areas. Given the current cost of health care, an ever-growing uninsured population, increased use of the Emergency Room for non-urgent care, and the decreased number of physicians serving the citizens of California, allowing NDs to perform minor office procedures, as trained, better serves Californians while still protecting the public from dangerous practices.

### **Minor Office Procedures Taught in the Naturopathic Colleges**

Each of the approved schools requires completion of minor office surgery courses, medical procedure courses, or courses in emergency medicine. A listing of the required hours for graduation at each school is given above under the section entitled Approved Schools. Samples of syllabi from two of the courses are given in the Appendix.

### **Minor Office Procedures Laws from other States**

The states that currently allow minor office procedures or minor office surgery to be performed by NDs are Arizona, Idaho, Kansas, Maine, Montana, New Hampshire, Oregon, Utah, and Washington. The procedures that are allowed in all of those states appear to be the use of electrical or other methods for the surgical repair and care of superficial lacerations and abrasions, removal of benign superficial lesions, the removal of foreign bodies and masses located in the superficial structures, and the use of antiseptics and local anesthetics. The specific laws from these states appear in the Appendix.

### **Minor Office Procedures Currently Practiced by Licensed NDs in the Field**

An informal survey of Naturopathic Doctors in those states which do allow minor surgery or minor office procedures was performed by the consultants in preparation for this report. The survey revealed the following procedures in current use by NDs in their offices:

- Local anesthetics
- Repair of superficial lacerations
- Drain and pack abscesses in the dermis and subcutaneous tissue
- Drain bursas

- Remove superficial lesions, moles, lipomas, warts, nevi, ganglions, fibromas, cysts, foreign bodies, excision and biopsy
- External hemorrhoids (including infrared and laser)
- Kesy (electrogalvanic coagulation) to treat internal hemorrhoids)
- Stitch surgical and non-surgical wounds, debride wounds
- Trephination of eardrums,
- Trigger point injections
- All types of injection therapy including trigger point injection, NT, MFTPi, IV, mesotherapy, prolotherapy, sclerotherapy, "dry needling", etc
- Light based therapies (intense pulsed light, laser, Levulon, broad band) for skin procedures
- Dermatological peels, facial fillers
- Electrocauterization, hyfercation, cryosurgery
- Escharotic therapy – warts, moles, cervical lesions
- Punch biopsies
- Scar therapy
- Removal of impacted cerumen
- Wound & decubitis ulcer care

In researching for this report, the Bureau was unable to identify any cases of malpractice regarding minor office procedures by an ND in any of the states where these procedures are allowed.

### **Laboratory Testing**

Section 3640 of the Business and Professions Code authorizes an ND to “order and perform” physical and laboratory examinations for diagnostic purposes, including, but not limited to, phlebotomy, clinical laboratory tests, speculum examinations, orificial examinations, and physiological function tests.

The federal Clinical Laboratory Improvement Amendments (CLIA) law (42 U.S.C. Sec. 263a; P.L.100-578) requires every facility that tests human specimens for the purpose of providing information for the diagnosis, prevention or treatment of any disease or impairment of, or the assessment of the health of, a human being to meet certain requirements. If a facility (e.g. ND’s office) performs tests for these purposes, it is considered under the law, to be a laboratory. CLIA laws apply even if only one or a few basic tests are performed, and even if there is no charge for the testing. CLIA standards apply nationwide and require that a lab director is to be designated for testing that is beyond the “waived” category. Waived tests include the simplest tests, such as a home pregnancy test that can be purchased over the counter.

Federal regulations define waived tests as simple laboratory examinations and procedures that are cleared by the Food and Drug Administration (FDA) for home

use; employ methodologies that are so simple and accurate as to render the likelihood of erroneous results negligible; or pose no reasonable risk of harm to the patient if the test is performed incorrectly (42 C.F.R. 493).

The specified tests that are listed in the regulation are:

1. Dipstick or Tablet reagent urinalysis (non-automated) for the following:
  - Bilirubin
  - Glucose
  - Hemoglobin
  - Ketone
  - Leukocytes
  - Nitrite
  - pH
  - Protein
  - Specific gravity
  - Urobilinogen
2. Fecal occult blood
3. Ovulation tests - visual color comparison tests for luteinizing hormone
4. Urine pregnancy tests - visual color comparison tests
5. Erythrocyte sedimentation rate-non-automated
6. Hemoglobin-copper sulfate - non-automated
7. Blood glucose by glucose monitoring devices cleared by the FDA specifically for home use
8. Spun microhematocrit
9. (added 1/19/93) Hemoglobin by single analyte instruments with self-contained or component features to perform specimen/reagent interaction, providing direct measurement and readout

However, state law (Section 1206.5) requires that any facility where clinical lab tests are performed, even those classified as “waived” must be performed under the overall operation and administration of a lab director. A lab director is defined as either a licensed medical doctor, or a person licensed as a lab director under the Business and Professions Code. Therefore, unless an ND is licensed as a lab director, all clinical tests must be performed under the operation and administration of an MD, or other licensed lab director. It should also be noted that NDs (and other healthcare professionals) practicing in other states do not have any similar type of restriction and are able to perform these tests as authorized within the federal law.

It is clear that it was the intent of the Legislature when it enacted Section 3640 to authorize NDs to be able to perform the tests as specified in the Act. The restriction in state law severely limits the ability of the NDs to practice their profession and to provide the safest level of care for their patients.



## **CONSULTANT RECOMMENDATIONS**

### **Minor Office Procedures**

After a review of the training, education, and practice of NDs, the consultants reached consensus regarding procedures which, when performed by competent, properly trained NDs, present low risk to patients. The procedures listed below are recommended to be able to be performed by NDs without MD supervision:

- Prescribe and administer local anesthetic solutions, their adjuncts and diluents (topical and injected)
- Removal of clinically benign skin lesions
- Repair of skin lacerations (including suturing)
- Removal of superficial tissue foreign bodies or lesions
- Incision and drainage of abscess / trephination of subungual hematoma

The Act already allows for the "removal of foreign bodies located in the superficial tissues" (Section 3640(c)(6)). The Act would need to be amended to allow NDs to perform the other four procedures recommended by the consultants.

### **Laboratory Testing**

It is recommended that statutory changes be made in order to allow NDs to be able to perform the clinical laboratory tests authorized by Section 3640 of the Act.

## **Biographies of the Consultants**

### **David Field, ND, LAc**

David Field received his B.A. in Biology from Colorado College in 1975. He earned his N.D. at the National College of Naturopathic Medicine, graduating in 1985. Upon graduation, he moved to San Francisco, where he co-founded the California Association of Naturopathic Physicians (now California Naturopathic Doctors Association). After completing the Certificate program at the San Francisco College of Acupuncture and Oriental Medicine, he successfully passed the California Acupuncture Board exam in 1986 and has been licensed in California as an acupuncturist (AC2874) since. He is the first licensed Naturopathic Doctor (ND-1) in California; license granted in January, 2005. He was appointed by the Speaker of the Assembly to the Naturopathic Advisory Council as an inaugural member. Dr. Field lives in Santa Rosa, California with his wife and two sons.

### **Bill Benda, MD**

After graduation cum laude from Duke University, Dr. Benda received his medical degree from the University of Miami School of Medicine at Jackson Memorial Hospital. Following his residency in Emergency Medicine at Harbor-UCLA Medical Center, he remained as director of Emergency Medical Services and Assistant Clinical Professor of Medicine at UCLA. He also served as flight surgeon for the County of Los Angeles Fire Department. Dr. Benda has been actively involved in the instruction of medical students and residents and has lectured at numerous professional conferences. He maintains memberships in the American Academy of Emergency Medicine as well as various organizations promoting human rights and medical care in developing countries. In 1994 he served as the sole physician in Eastern Rwanda during the genocide and subsequent cholera epidemic.

Upon his return Dr. Benda served as medical director of the Big Sur Health Center while continuing to staff local emergency departments. Continual personal inquiry and a desire for the return of health to his own profession led to a two-year fellowship in the Program in Integrative Medicine at the University of Arizona under Dr. Andrew Weil. During his tenure he presented this new concept of health care delivery extensively at various academic and corporate symposia. His research and clinical work focused on patients with breast cancer, animal-assisted therapy, and physician health and well-being. Dr. Benda also co-created a non-profit organization, the National Integrative Medicine Council, and served as Director of Medical and Public Affairs.

Currently Dr. Benda's focus is his ongoing research in the realm of equine therapy as applied to children with physical and emotional disabilities, his consulting work with academic and clinical institutions, and his publications. He serves as editor, contributor, and medical advisory board member for several conventional and alternative journals. He continues to lecture extensively on a variety of topics in the integrative arena and has presented his equine therapy research at numerous symposia.

### **Carl Hangee-Bauer, ND, LAc**

Dr. Hangee-Bauer received his doctorate in naturopathic medicine from Bastyr University in 1984. After completing a one-year residency at Bastyr, he moved to San Francisco in 1985 where he pursued additional training in acupuncture and Chinese medicine and became licensed as an acupuncturist in 1989. He founded the SOMA Acupuncture & Natural Health Clinic in 1989 where he integrates naturopathic medicine with acupuncture and traditional Chinese medicine to provide natural health solutions to improve health and treat disease.

Dr. Hangee-Bauer is a founding member and past president of the California Naturopathic Doctors Association, where he has most recently worked as a member of the CNDA legislative team, focusing on the successful passage of the Naturopathic Doctors Licensing Act. He is Chairperson of the California Bureau of Naturopathic Medicine Advisory Council and is one of the first naturopathic doctors licensed to practice in California.

### **Bruce Wapen, MD**

Dr. Wapen attended college at Penn State University and graduated in 1967 with a BS in Zoology. He taught public school chemistry, physics & general science for two years in the Wheeling, WV area and then attended the West Virginia University School of Medicine, graduating with an MD degree in 1973. With an interest in becoming a plastic surgeon, he completed 3-years of general surgery residency at the Kaiser Foundation Hospital in San Francisco (1973-1976) but then found his true calling in emergency medicine. Emergency Medicine became a specialty in 1979, and he became a board certified emergency physician in 1984. He re-certified in that specialty in 1994 and 2004 and has practiced it fulltime for the past 30-years, currently working exclusively in the Emergency Department at the Mills-Peninsula Hospitals in San Mateo and Burlingame, California.

Dr. Wapen became interested in the health benefits of Complementary and Alternative Medicine (CAM) in 1980 when he became aware of the work done by Dr. Linus Pauling with regard to the concept of "orthomolecular medicine." His interests are primarily invested in the health benefits of nutritional supplements, and he teaches a 16-hour lecture series about that subject entitled "*Nutrients for*

*Health.*” He belongs to numerous CAM organizations including being an associate member of the American Association of Naturopathic Physicians (AANP) and the California Naturopathic Doctors Association (CNDA).

**Alexandra Cock, JD**

Alexandra Cock graduated from the University of Southern California with a Bachelor’s Degree in Economics. She received a law degree from Seattle University School of Law. She practiced tax, business and estate planning law in Seattle. She maintains her law license in Washington State. In 1989, she made a career transition into financial management consulting. Her financial advisory firm, Wealth Plus, Inc., is a Registered Investment Advisor with the State of California. The firm provides holistic professional services for businesses and individuals.

Alexandra is a former Chairperson of the International Board of Trustees, UCRS. She has served on the boards of women's and school organizations. She is currently on the Corte Madera Chamber of Commerce Board.

