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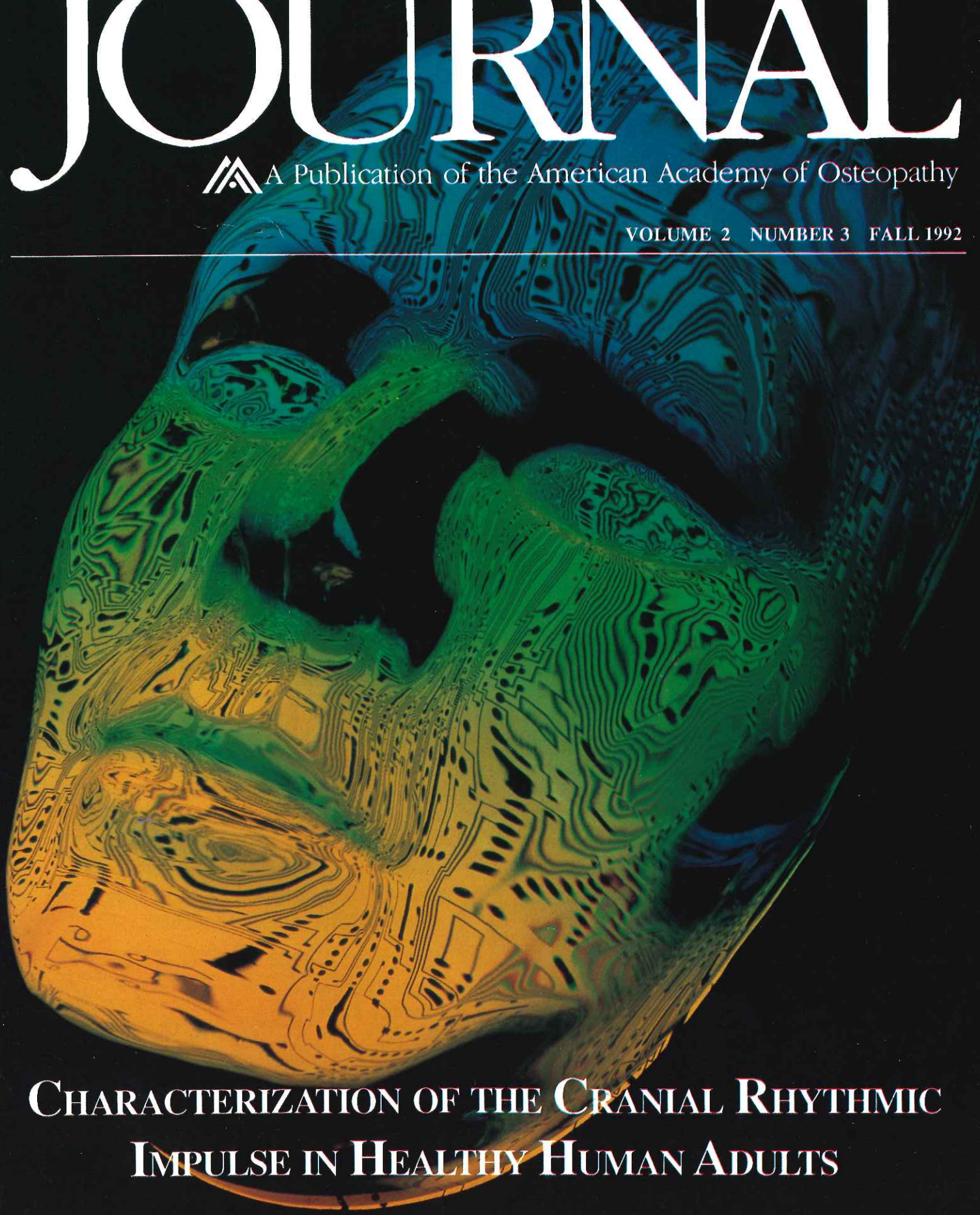
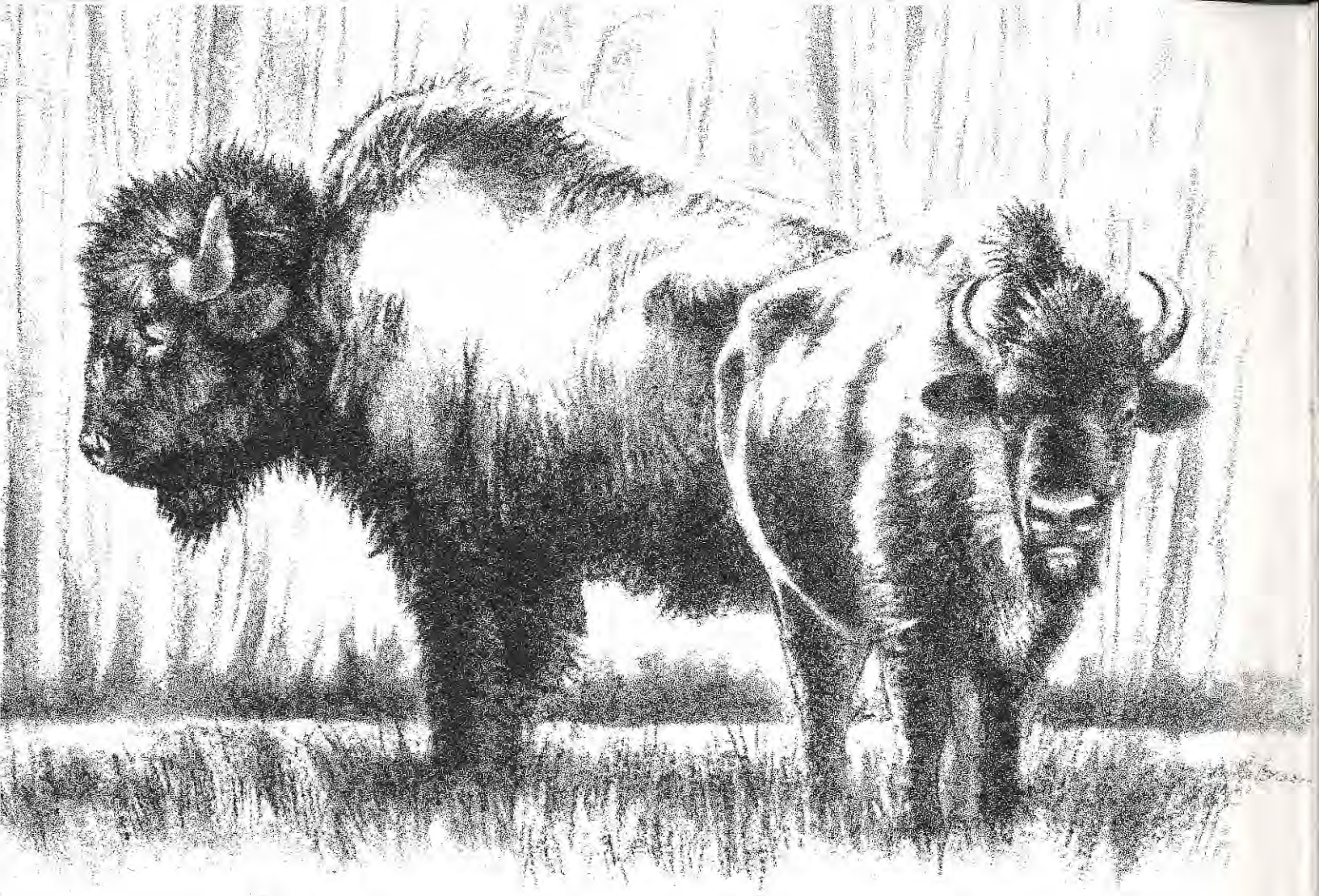


Characterization of the Cranial Rhythmic Impulse in Healthy Human Adults



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The mission statement of the American Academy of Osteopathy is to teach, explore, advocate, and advance the study and application of the science and art of total health care management, emphasizing palpatory diagnosis and osteopathic manipulative treatment.

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From the Editor

OSTEOPATHY & TRUTH: THE THIRD PHASE

Osteopathy is truth. Now, in case you think I came up with that profound statement all by myself, I did not. A.T. Still himself said: "Osteopathy is truth, or it is nothing."

I wonder how many of us ever stop to think about what courage and conviction it took for Doctor Still to present the principles of Osteopathy to the world, and then to commit himself to developing this new system of medicine in the face of all kinds of adversity. The German philosopher Shopenhauer said that all truth must go through three phases:

> First, it is ridiculed.
> Second, it is violently opposed.
> Third, it is accepted as self-evident.

Certainly osteopathic medicine has had its share of these phases. Doctor Still was certainly ridiculed, so much so that he was virtually drummed out of the medical profession of his time, and put in a position where he had to start a whole new profession in order to keep his ideas alive. As the profession grew, phase two began, and osteopathic medicine saw a lot of opposition. Osteopathic physicians in each state had to work long and hard to gain the right to practice, and later to gain full licensure as physicians. They had to work just as hard to gain the privilege of practicing in the military as physicians. Many examples of opposition to osteopathic medicine exist, and all of us can think of a few of them.

While phase two is certainly not over, I believe that osteopathic medicine is now in the beginning of the third phase. The general public is asking for the type of physician who will take care of them in a holistic fashion, treat them humanely, and consider them in the context of their total environment. This kind of care, inherent in the principles of osteopathic medicine, is gradually being recognized by the allopathic profession, and they are beginning to meet the demands of the general public. In a recent newspaper article, it was reported that C. Everett Koop, the former United States Surgeon General, has approached his alma mater (Dartmouth College) about forming an institute dedicated to getting undergraduate medical students out of the classroom and into the community. They will spend time getting to know patients, teaching preventive medicine, and learning more about values, ethics and humanities in medical practice. I applaud this kind of approach, and hope for the day when all physicians understand and practice the principles that osteopathic physicians have always been taught.

What can we as individuals do to promote this process? Perhaps the best thing each of us can do is be good role models for other physicians, for our medical students, and especially for our patients. We can constantly rededicate ourselves to the principles of osteopathic medicine, and make certain that we practice them every day. Another thing we can do is take just a little time to really get to know our patients, for I believe the key to healing lies in great measure in the rapport we develop with those we meet in our daily practice of medicine. In her book, Doctors' Stories: The Narrative Structure of Medical Knowledge, Kathryn Montgomery Hunter tells us: "Good physicians offer their patients all that is appropriate, urge them to make use of technological advances that are promising in their case, soothe fears, alleviate pain, persuade. But they do not lose sight of the lives out of which patients' choices come and into which medical therapy must intrude."

Osteopathy is truth. Practice it, and enjoy the third phase!

Raymond J. Hruby, D.O., FAAO

LETTER TO THE EDITOR

I was pleased to see the reprint of Dr. Astell's Scott Memorial Lecture in the latest AAO Journal. The same lecture could be given today without changing a line.

However, I believe the endnote should have been updated. Dr. Astell's current address is 1248 Dickens Ct. Monticello, IL 61856, and that is correct in the Academy Directory. She served as Executive Director of the American Academy of Osteopathy, from 1974-1976. In 1977 she received the Andrew Taylor Still Medallion of Honor from the Academy.

When Louise asked the Academy to find a replacement for her as Director, her very close friend Martha Drew, Ph.D. applied and was hired. Louise and Martha share an apartment in Monticello. Louise, at last report, is a very sick woman with chronic fatigue syndrome and Martha is her constant companion and nurse. Two past directors of the Academy residing in Monticello. I keep avoiding the verb live or living as, according to my last information in March, Louise is existing.

I recommend that future articles in "From the archives" contain *updated endnotes*.

Respectfully,

John P. Goodridge, D.O., FAAO

INSTRUCTIONS FOR AUTHORS

The American Academy of Osteopathy (AAO) Journal is intended as a forum for disseminating information on the science and art of osteopathic manipulative medicine. It is directed toward osteopathic physicians, students, interns and residents, and particularly toward those physicians with a special interest in osteopathic manipulative treatment.

The AAO Journal welcomes contributions in the following categories:

Original Contributions
Clinical or applied research, or basic science research related to clinical practice.

Case Reports
Unusual clinical presentations, newly recognized situations, or rarely reported features.

Clinical Practice
Articles about practical applications for general practitioners or specialists.

Special Communications
Items related to the art of practice, such as poems, essays and stories.

Letters to the Editor
Comments on articles published in The AAO Journal or new information on clinical topics.

Professional News
News of promotions, awards, appointments and other similar professional activities.

Book Reviews
Reviews of publications related to osteopathic manipulative medicine and to manipulative medicine in general.

Note: Contributions are accepted from members of the AOA, faculty members in osteopathic medical colleges, osteopathic residents and interns and students of osteopathic colleges. Contributions by others are accepted on an individual basis.

Submission
Submit all papers to Raymond J. Hruby, DO, FAAO, Editor-in-Chief, University of New England, 11 Hills Beach Road, Biddeford, ME 04005.

Editorial Review
Papers submitted to The AAO Journal may be submitted for review by the Editorial Board. Notification of acceptance or rejection usually is given within three months after receipt of the paper; publication follows as soon as possible thereafter, depending upon the backlog of papers. Some papers may be rejected because of duplication of subject matter or the need to establish priorities on the use of limited space.

Requirements for manuscript submission:

Manuscript
1. Type all text, references and tabular material using upper and lower case, double-spaced with one-inch margins. Number all pages consecutively.
2. Submit original plus one copy. Please retain one copy for your files.
3. Check that all references, tables and figures are cited in the text and in numerical order.
4. Include a cover letter that gives the author's full name and address, telephone number, institution from which work initiated, and academic title or position.

Computer Disks
We encourage and welcome computer disks containing the material submitted in hard copy form. Though we prefer Macintosh 3-1/2" disks, MS-DOS formats using either 3-1/2" or 5-1/4" discs are equally acceptable.

Illustrations
1. Be sure that illustrations submitted are clearly labeled.
2. Photos should be submitted as 5" x 7" glossy black and white prints with high contrast. On the back of each, clearly indicate the top of the photo. Use a photocopy to indicate the placement of arrows and other markers on the photos. If color is necessary, submit clearly labeled 35 mm slides with the tops marked on the frames. All illustrations will be returned to the authors of published manuscripts.
3. Include a caption for each figure.

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1. References are required for all material derived from the work of others. Cite all references in numerical order in the text. If there are references used as general source material, but from which no specific information was taken, list them in alphabetical order following the numbered journals.
2. For journals, include the names of all authors, complete title of the article, name of the journal, volume number, date and inclusive page numbers. For books, include the name(s) of the editor(s), name and location of publisher and year of publication. Give page numbers for exact quotations.

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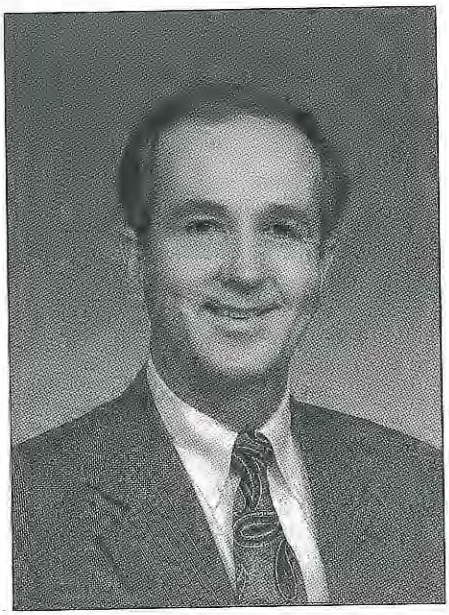
Message from the Executive Director



August 1st marked the beginning of the new fiscal year for the Academy. I am excited at the opportunity to begin this new year as your Executive Director and accept the challenge to implement the AAO's long range goals.

Kathleen Buto, Director of the Bureau of Policy Development at the Health Care Financing Administration (HCFA), in a June 30, 1992 letter to the American Osteopathic Association, advised that HCFA soon would be advising carriers that:

> *"OMT is considered to be a procedure, and an evaluation and management (E&M) service such as a visit or consultation can be paid on the same day as OMT if the E&M service is a significant, separately identifiable E&M service by the same physician on the day of the OMT."*

The AOA had contracted with a law firm experienced in dealing with HCFA to forge the policy clarification. HCFA's policy decision must be implemented by all Medicare carriers and the decision applies only to HCPCS Codes MO 702-730. AAO President **Judith O'Connell** prepared a cover letter to accompany copies of correspondence from **Ms. Buto** and AOA Attorney **Harvey A. Yampolsky** for distribution to all Academy members last month. This policy decision is significant, particularly for those states in which the Medicare carrier has refused to reimburse osteopathic physicians for OMT in addition to E&M services.

You should have received at least two notices of the Academy's Convention Program, scheduled for November 1-5 in San Diego, CA. Chairman **Stephen Blood** has planned an excellent variety of speakers under the theme of "Enhancement of the Body, Mind and Spirit." I urge you to register for the Convention as an Academy member since the revenues generated in support of the AAO program solely are dependent on the number of Academy members who mark the AAO on their registration form.

AOA President **Edward Loniewski** has nominated five AAO members to the U.S. Department of Health and Human Services Advisory Committee for Injury Prevention and Control (ACIPC). Those nominated were: **Deborah Heath, Michael Kuchera, Karen Steele, Benjamin Sucher and Wayne English.** The Committee is comprised of 14 members who are not federal officials and those officers of the U.S. Government deemed necessary for the Committee to fulfill its functions. Four new appointments will be made in the Spring of 1993 by the Secretary of the Department of Health and Human Services. The responsibilities of the Advisory Committee are to make recommendations regarding policies, goals, objectives, strategies, and priorities for the newly proposed National Center for Injury Prevention and Control at the Centers for Disease Control.

One significant action by the AAO Board of Trustees at its July meeting was the decision to fund a membership survey proposed by **Richard Feely's** Ad Hoc Committee on Federal Regulation of Osteopathic Manipulative Medicine. The first phase of the survey will be qualitative, will involve 10-20 Academy members and will generate data to present to the Relative Value Updating Committee (RUC) in support of the effort to include osteopathic procedure codes in AMA's CPT Manual. The second phase will survey 800-1000 AAO members to address Medicare, billing methods, charges for osteopathic procedures, liability insurance, and a variety of other matters of interest to the membership. I appeal to Academy members who are invited to participate in this survey to complete and return the document promptly.

Your Academy is changing, taking a more assertive, pro-active role within the osteopathic profession. President **Judith O'Connell,** President-elect **Herbert Yates** and I attended the July meetings of the AOA Board of Trustees and House of Delegates. The three of us spoke to 42 resolutions and were able to directly influence a number of them, including the preservation of a policy statement on the importance of the musculoskeletal evaluation as part of the physical examination, and the forging of a more acceptable definition of osteopathic medicine.

Academy members also are an integral part of the AOA's effort to upgrade work values of reimburse-

American Academy of Osteopathy Position Statement on Coding for Osteopathic Manipulative Medicine

by Stephen J. Noone, Executive Director

The American Academy of Osteopathy (AAO) strongly advocates a universal system of coding for osteopathic manipulative medicine to be utilized by osteopathic physicians throughout the United States. The Academy recognizes the Health Care Financing Administration's Common Procedure Coding System (HCPCS) series of codes MO 702 through MO 730 as this universal system of coding.

The Academy's leadership believes that these MO-codes are defensible and distinct as described in HCPCS and allow the osteopathic physicians coding flexibility both for areas of the body treated and for osteopathic technique(s) applied in treatment. These MO-codes have existed for years, have been studied as part of the Resource Based Relative Value Scale (RVS), and have been assigned work values for reimbursement under the RVS which was implemented for the Medicare program in 1992. Hence, the AAO supports the American Osteopathic Association's (AOA) efforts to negotiate for the inclusion of these MO-codes in the next issue of the Common Procedural Terminology (CPT) Manual.

The AAO President recently represented the osteopathic profession on a Health Care Financing Administration (HCFA) committee to review comments on work values assigned to manipulation codes. She was successful in communicating the level of work by the osteopathic physician in applying osteopathic treatments as well as a rationale for upgrading the work values as the number of treated body regions increase. Since she also was successful in delineating the distinction between osteopathic manipulation and manipulation applied by other health care providers, she was able to underscore the importance of maintaining a national, separate and unique system of coding for osteopathic manipulative medicine.

The Academy's leadership invites the American Osteopathic Association to join the Academy in a campaign to advocate the exclusive use of the MO-codes by all osteopathic physicians who utilize osteopathic manipulative treatment in their professional practices.

Proposed by Judith A. O'Connell, D.O., AAO President.

Reviewed by the Ad Hoc Committee on Federal Regulation on OMM.

Adopted by the AAO Board of Trustees on July 11, 1992. ❑

ment codes for osteopathic manipulation, and the effort to include OMT codes in the AMA's CPT manual. The AAO Board of Trustees also has established a task force to challenge the profession to increase the usage of OMT in the hospital setting.

The coming months will be busy ones for the staff, featuring the coordination of a structural consultation and treatment service at the New England Assembly, participation in the AOA's Graduate Medical Education Conference in Chicago, coordination of the Academy's OMT Update in Orlando, and management of the AOA Convention in San Diego. The relocation of the Academy's headquarters to The Pyramids at College Park in Indianapolis, Indiana will occur on or about October 1st.

Following negotiations with **Laurie Jones**, I proposed to the Board of Trustees a new consulting agreement with The Jones Group through June 1993. The agreement secures the services of **Laurie Jones** in this important period when the Academy begins its implementation of the long range plan adopted by the Board of Governors last March. I look forward to calling upon The Jones Group to provide expertise in the design and production of a variety of resources which will assist the Academy in cementing its position as the "worldwide source of information on osteopathy."

Membership dues for the 1992-1993 fiscal year have been billed and payments are being received daily at AAO headquarters. If you have not already mailed your check, I urge you to do so immediately to support the ongoing activities of the Academy.

Stephen J. Noone, CAE
Executive Director

From the AOBSPOMM Files

BY

RICHARD A. FEELY, D.O.

IDENTIFICATION

J. F. is a 34-year old white, male farmer.

CHIEF COMPLAINT:

Injured low back on 08/26/89 after carrying a heavy object. Low back pain is on the left side and has been present for five days.

HISTORY OF PRESENT ILLNESS:

This patient had low back pain after carrying a 60 pound basket, lifting and pushing it over a railing while feeding the hogs on his farm. He rested the following day but did have a positive Valsalva's test for low back pain on the second day. He had no significant back pain previously. He did not have any treatment for this problem other than rest.

PAST MEDICAL HISTORY:

Past Medical history is not significant.

PAST SURGICAL HISTORY:

None

ALLERGIES: None

MEDICATIONS: None

SOCIAL HABITS:

No smoking, no drinking, no special diet. Weight bearing was on the left. Trochanter was equal. Iliac crest was low on the left. Inferior lateral angle of the scapula was low on the right. Shoulder was low on the right. Head was in the midline. Pelvic sideshift was to the right. There is an apparent leg shortness on the left, one-third of an inch. Cranial rhythm impulses had a fair rate and amplitude. The left temporal was locked in internal rotation. Right temporal was held in internal rotation. There is an overall interior vertical strain. There was a negative Lasegue's sign and straight raising sign on the left and right. There was a negative Patrick's sign on the left and right. Range of motion of the foot, knee, shoulder, elbow, wrist, hand, and hip were all within normal limits. There was a posterior left innominate. Left sacral torsion was present and oblique axis with L5 rotated left and sidebent left, L4 rotated left sidebent to the left. L3 and L2 also rotated left and sidebent to the left. Increased muscle spasm was noted in the paravertebral musculature of this region. T8 was rotated right and sidebent right, T9 was rotated left and sidebent to the right. T6 was rotated right and sidebent to the right. T3 was rotated left, sidebent to the right. C6 rotated and sidebent to the left. C4 rotated right, sidebent to the right. C2 was rotated left and sidebent to the right.

INITIAL ASSESSMENT:

1) A 34-year old, white male with acute somatic dysfunction of the head, cervical, thoracic, lumbar, sacrum and pelvis.

2) Possible short leg syndrome.

TREATMENT PLAN:

Osteopathic manipulative treatment was administered using indirect, high velocity/low amplitude, and articulator procedures to alleviate the somatic dysfunction found in the axial skeleton and cranial sacral mechanism.

Clinoril 150 mg, one tablet b.i.d., was prescribed along with Soma, one tablet at bedtime due to the fact that the man worked around machinery. The patient was advised that he may continue to work and was to return in one week with a postural series x-ray.

COURSE OF THERAPY:

The patient followed the initial treatment plan that was outlined and returned in one week stating that he was feeling fine and had no complaints. Postural series x-ray showed a pelvic index of 0.67; L3 vertical line was located anterior to the sacrum; the sacral base had a declination of 1.5 cm to the left. The femur head height had a declination toward the left at 1.1 cm. The lumbar sacral angle was 45 degrees. Somatic dysfunction was found at L3 rotated left, sidebent to the left; L4 rotated right, sidebent to the right. Somatic dysfunction, lumbar spine, and short leg syndrome was diagnosed. Osteopathic manipulative treatment was administered using high velocity/low amplitude, articulatory techniques. A one-quarter inch shoe heel-lift was prescribed to be worn at all times in the left shoe. The patient was instructed to return in two weeks for follow-up evaluation.

The patient returned in two weeks stating that he was feeling fine. He had no symptoms, and he had been wearing the shoe lift. He had no further problem with his back. Somatic dysfunction was found in the head, cervical, thoracic, lumbar, sacrum, and pelvis. Osteopathic manipulation treatment was administered using indirect, high velocity/low amplitude, and articulatory procedures. The patient was instructed to return in approximately one week, if needed. He was told to continue with the use of the heel-lift.

DISCUSSION:

This interesting case describes a patient in his early thirties experiencing acute low back pain after strenuous physical activity. This patient was in excellent physical condition, but due to postural decompensation and the unwieldy task he was performing at the time, he strained his low back with resulting somatic dysfunction. After the correct diagnosis of somatic dysfunction and short leg syndrome

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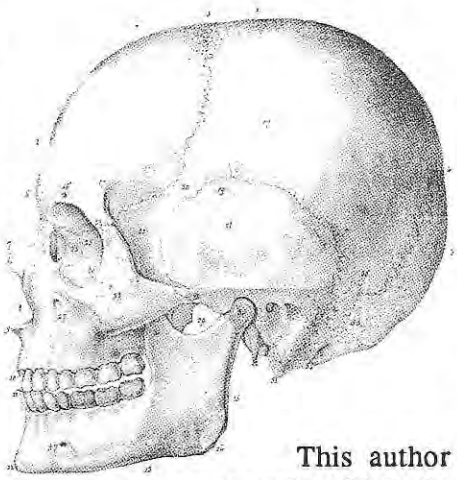
CHARACTERIZATION OF THE CRANIAL RYTHMIC IMPULSE IN HEALTHY HUMAN ADULTS

by James M. Norton, Ph.D., Gretchen Sibley, B.A., and Richard Broder-Oldach, B.S.
Departments of Physiology and Osteopathic Principles and Practice
University of New England College of Osteopathic Medicine

INTRODUCTION

Physiological rhythms within the neural, muscular, respiratory, cardiovascular, endocrine and other systems play a major role in the maintenance of stable and appropriate conditions within the internal environment of the body. Characterization of these rhythms, a major thrust of biomedical research, focuses on **rhythmogenesis** (the cellular mechanisms responsible for initiating and/or maintaining the rhythm), **frequency** (cycles per sec, per min, per year, etc.), **amplitude** (magnitude of force, range of concentration, amplitude of membrane potential, etc.), **control** of the rhythm, and the **interaction** of a given rhythmic process with other homeostatic or compensatory mechanisms.

The cranial rhythmic impulse (CRI) has been identified and studied by a large number of osteopathic physicians and scientists ever since the development of cranial osteopathy by Sutherland[1,2]. The CRI is generally considered to be an independent rhythm occurring at a frequency similar to that of respiration (6-14 cycles/min[3,4]) and has been described as "resembling the respiratory excursion of the chest in minute form ..."[5]. The amplitude of the CRI is variously described as "strength" or "vitality" in a rather subjective fashion; attempts to quantify CRI amplitude[6,7,8] have been made with varying degrees of success.



This author recently published a tissue pressure model for the CRI[9] that incorporated the cardiovascular and respiratory rhythms of both subject and examiner as determinants of the perceived CRI frequency and amplitude. According to this model, the CRI would arise in the soft tissues of the two participants (rhythmogenesis) and would have a frequency and amplitude dependent upon the complex interaction of tissue fluid pressure fluctuations and the characteristics of the mechanoreceptors in the hands of the examiner. The model therefore incorporates all the necessary characteristics of a true physiological rhythm as described above and applies these characteristics to the CRI in a testable hypothesis. The following article describes results of experiments designed to generate the kind of hard data concerning CRI frequency and amplitude required to test the validity of the tissue pressure model.

MATERIALS AND METHODS

Subjects: The twenty-four (24) subjects who volunteered for this study were apparently healthy students and faculty members at the College of Osteopathic Medicine of the University of New England. All subjects were informed in advance of the general nature of the project and of the nature of the physiological measurements that would be made, and gave their informed consent prior to participation in the study.

Examiners: The twelve (12) examiners were osteopathic medical students, teaching fellows with the UNE/COM Osteopathic Principles and Practice Department, UNE/COM clinical faculty, and members of an informal cranial osteopathy study group which meets regularly at the university. The level of experience for the examiners in CRI palpation ranged from two to fifteen years.

Measurements and Procedures: Subjects were asked to lie supine on an examining table and the examiner was seated at the subject's head. Examiners were asked to monitor the subject's CRI using a standard vault hold. In order to assure that both subject and examiner were in a steady state, the period of CRI monitoring was preceded by several minutes of quiet rest, initially with no contact between examiner and subject, then with the examiner's hands on the subject's shoulders. The period of

CRI monitoring was usually about two (2) minutes in duration.

A switch attached to the leg of the examining table and activated by examiner knee pressure was used to record the CRI. The examiners were asked to depress the switch during the flexion phase of the CRI cycle, thereby producing in the time/event marker channel of a chart recorder an upward deflection that corresponded to the flexion phase of the CRI as perceived by the examiner. The chart recording speed used throughout was 2 mm/sec.

Following a period of monitoring and recording the CRI, the examiners were asked to quantify the amplitude of the subject's CRI using a five-point scale (1=well below average, 2=somewhat below average, 3=average, 4=somewhat above average, 5=well above average). This figure was recorded on the permanent record of the session.

Analysis of the Data: The basic data obtained for each measurement session using the protocol described above consisted of CRI **cycle length** (measured as the time between the beginning of one flexion and the beginning of the next), **duration of flexion,** and CRI **amplitude.** Calculated values derived from these basic measurements included **average values for cycle length and for duration of the flexion phase** (in seconds), **duration of the extension phase** (in seconds, calculated as the difference between total cycle length and the duration of flexion), and CRI **frequency** (cycles/min, calculated as 60 . the cycle length in seconds). Calculated frequencies were validated by visually counting the number of flexions (or extensions) over a period of one minute on the permanent record.

Statistical analyses (simple and multiple linear regression, curvilinear regression, analysis of variance, and Student's test) were performed using commercially available software and statistical programs written by this investigator following standard formulae and procedures[10].

TABLE I

CRI Cycle Characteristics[a]

duration of flexion (sec)	7.7 ± 1.4
duration of extension (sec)[b]	8.8 ± 1.6
CRI cycle length (sec)	16.5 ± 2.8
CRI frequency (cycles/min)[c]	3.7 ± 0.6
CRI amplitude[d]	3.0 ± 0.7

a. Values given are mean ± standard deviation for twenty-four (24) subjects.

b. Calculated for each subject by subtracting the duration of flexion from the total cycle length.

c. Calculated for each subject as 60 divided by the cycle length in seconds.

d. Graded by the examiner on a relative scale of 1-5 as described in the text.

RESULTS

A total of 274 CRI cycles were recorded on twenty-four (24) subjects by twelve (12) examiners; these data are summarized in Table I. The most remarkable finding from these experiments is the relatively long average cycle length and the correspondingly low average CRI frequency of 3.7 cycles/min, considerably lower than previously published values. The range of average cycle lengths among the twenty-four (24) subjects was 11.7-22.3 seconds. Flexion occupied 46.5% of the average CRI cycle, and little variation in this percentage was seen over the range of cycle lengths observed in these experiments. Amplitudes ranged from 2-4 on the arbitrary 5-point scale, with no values of "1" or "5" reported by any examiner. No significant correlation was found between CRI frequency and amplitude using standard linear regression techniques, although visual inspection of the data suggested an inverse relationship between the two. The measured duration of flexion and the calculated duration of extension were both found to be linearly correlated with CRI cycle length (flexion: $r^2 = 0.877$, $p<.001$; extension: $r^2 = 0.907$, $p<.001$).

DISCUSSION

Methodology and Experimental Conditions: The knee switch designed for these experiments proved to be an effective method of allowing the examiner to record palpatory findings while continuously monitoring the CRI with both hands. The switch was silent, and the slight leg movement required to activate it was imperceptible to the subjects. Using this method to record the CRI did not require the examiners to be constantly aware of the passage of time, and

allowed them to focus on their palpatory findings. All examiners questioned reported that they were able to monitor the subject's cranial rhythm in a manner consistent with their usual practice, and that there was nothing unusual about the rhythm(s) they were monitoring. However, almost all of the examiners were surprised to find that the frequencies were so much lower than expected.

Relationship Between CRI frequency and Amplitude: Several well described physiological rhythms demonstrate an inverse relationship between frequency and amplitude. For example, a given minute ventilation can be achieved by a wide variety of ventilatory frequencies and tidal volumes; a slower frequency requires a larger tidal volume, and vice versa. The relationship between CRI frequency and amplitude for the subjects in this study suggested a similar pattern, but no statistically significant relationship was found. The coarseness of the 5-point scale used by the examiners and the narrow range of reported values for amplitude may have obscured a potentially significant inverse relationship, and a new amplitude scale will be devised for future experiments.

CRI Frequency and Examiner Experience: If the CRI represents a true physiological rhythm that an examiner can be trained to evaluate, then CRI frequency, as a basic property of that rhythm, should be readily palpated even by relatively unskilled examiners. Good agreement should therefore exist among examiners with respect to the determination of CRI frequency, regardless of the examiners' levels of experience in cranial techniques. The data collected during the experiments described above allowed a test of this hypothesis. One subject participated in experimental sessions with twelve (12) different examiners, ten of which examined the subject within a three hour period on a single day. The examiners were divided into three groups based on years of experience in cranial techniques, and the results of this data analysis are shown in Table II.

TABLE II

CRI Cycle Characteristics and Years of Examiner Experience[a]

years of experience	< 5	5-10	>10
number of examiners	6	3	3
duration of flexion (sec)	+2.3	+1.8	+0.9
duration of extension (sec)	9.5 +2.6	8.8 +2.7	10.4 +0.6
CRI cycle length (sec)	16.7 ±4.9	15.7 +4.2	18.9 +1.2
CRI frequency (cycles/min)	4.1 +1.5	4.1 +1.1	3.2 +0.2
CRI amplitude	3.0 +0.7	2.7 +0.5	2.5 +0.5

a. Values are expressed as mean + standard deviation; duration of extension, CRI frequency and CRI amplitude determined as described previously.

Although the average cycle length as determined by the most experienced examiners was longer, and the CRI frequency lower, than the corresponding values for less experienced examiners, the differences among the three groups were not statistically significant. Groups of examiners with varying degrees of experience therefore appeared to agree on the basic CRI frequency of this one subject, supporting the hypothesis stated in the preceding paragraph. The overall variability in each of the measured and calculated variables is least among the most experienced examiners, suggesting that inter-examiner agreement increases with increasing experience, as one might expect. Assuming the most experienced examiners to be the most proficient and accurate in identifying the CRI and its components, the low frequency determined by this group and the good agreement among the examiners support the accuracy of the generally low CRI frequencies documented in this report.

Calculation of Extension Duration vs. Measurement of Extension Duration: For a small group of subjects (n=3), an examiner was asked first to indicate the flexion phase of the CRI with the knee switch for 1-2 min, then to indicate the extension phase for a similar period. The results of these sessions are shown in Table III. The average cycle lengths (and therefore CRI frequencies) determined using either flexion or extension were found to be the same. The extension phase, when measured directly rather than calculated, was found to occupy only 45.9% of the CRI cycle. An average of 17.6% of the cycle in these subjects was neither

flexion nor extension, corresponding perhaps to the "neutral zone" described previously[11]. If each CRI cycle does include time within such a "neutral zone", then the period described as "extension" in the results described above obtained on the twenty-four (24) subjects should more appropriately be described as the "non-flexion" component of the CRI. Incidentally, the examiner for the sessions during which both flexion and extension were monitored reported that the extension phase was more difficult to isolate and identify than was the flexion phase and that flexion appeared more "active".

"Still Point": Related to the possible presence of a neutral period or position within the CRI cycle is the concept of "still points", frequently identified by examiners while monitoring the CRI of a subject. One subject in this study exhibited what the examiner described as a "still point" in the middle of an experimental session. The characteristics of this subject's CRI changed dramatically after this episode; the duration of the flexion phase and the total cycle length increased, indicating a decrease in CRI frequency. A copy of the experimental record of this event is shown in Figure 1.

TABLE III

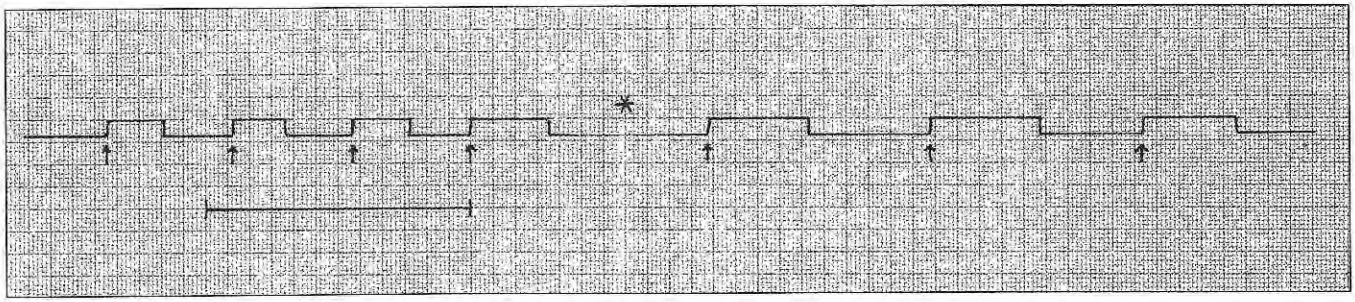
Comparison of CRI Cycle Characteristics
Derived from Measuring Either Flexion or Extension

CRI phase monitored	flexion	extension
duration of flexion (sec)	8.9	n/a
		±2.6
duration of extension (sec)	n/a	11.6
		±3.1
CRI cycle length (sec)	24.5	25.2
	±4.5	±5.6
CRI frequency (cycles/min)	2.5	2.5
	±0.4	±0.6

SUMMARY

The experiments described in this report were designed to provide the kind of quantitative information on the characteristics of the CRI that is not available in the literature and that is essential for the validation of any conceptual model for the origin of the cranial rhythmic impulse. The authors would appreciate feedback concerning the data itself or the methods by which the data were generated. The ultimate goal of research in this area should be to gather and evaluate information on the CRI in a manner that is both scientifically rigorous and clinically relevant to practitioners in the field.

continued on page 26



LEGEND FOR FIGURE 1

A tracing of a portion of the record of a subject who demonstrated a "still point" during an experimental session. The small vertical arrows represent the onset of flexion. The distance between arrows represents cycle length. The still point was detected by the examiner at the point indicated by the asterisk (*). Four cycles with relatively short flexions are followed by the still point, followed in turn by three cycles with clearly longer flexion phases and cycle lengths. CRI frequency prior to the pause, or "still point", was 4.4 cycles/min; after, 2.5 cycles/min. The horizontal bar represents 30 seconds.

AAO World Report

BY ROBERT C. CLARK, D.O.

From correspondent Richard Carruthers, D.O., of New Zealand comes word of an affiliation of the Australian Osteopathic Association and the New Zealand Register of Osteopaths. He writes, "...there is a statement of intention on both sides to affiliate (as opposed to amalgamate), and the legal leg-work to do so is currently proceeding."

Dr. Carruthers sent the most recent copy of the *Journal of the New Zealand Register of Osteopaths*. This is Volume #5 of the journal. It carries the publication date of 1991. Once again the New Zealand D.O.'s put together a fine issue with a variety of articles of interest to Osteopaths everywhere. The two lead articles focus on Cranial Osteopathy. Both articles address infant problems.

How many times have AAO members wondered why they saw some patients only once? A survey by Richard Carruthers, D.O., and Avril Gaastra give some very interesting answers to this question.

Jennifer R. Jamison, M.B. surveyed the members of the New Zealand Register of Osteopaths to better define the practice of Osteopathy in New Zealand as perceived by those D.O.s who practice there. The survey posed questions about the styles of practice, techniques employed, presenting complaints, how D.O.'s believe the patients perceive them and how D.O.'s in New Zealand perceive themselves professionally. Additionally the survey asked what each D.O. would like to see his or her profession achieve in the next ten years and what would be the worst thing to happen to the profession in the next ten years! (Perhaps the AAO should follow the New Zealanders' example and conduct a similar survey of its members.)

There are several other articles of interest but too numerous to review here. Suffice it to say the *Journal of the New Zealand Register of Osteopaths* is worth the effort to obtain a copy by writing The Editor JNZRO, PO Box 113, Christchurch, N.Z. ❑

Who is Leading Whom?

FOLLOWING IS AN EXCERPT FROM "THE OSTEOPATHIC ADVANTAGE SEMINAR" WHICH IS BEING PRESENTED AROUND THE COUNTRY BY LAURIE JONES

This seminar grew out of the American Academy of Osteopathy's concern that the basics of osteopathy are being diluted and/or ignored by much of the profession.

In the one and a half hour presentation Ms. Jones points out that the principals of osteopathy are being studied with intense fervor outside the profession, with many claiming the discoveries as "new."

Ms. Jones gives convincing evidence that D.O.'s must recognize and promote their uniqueness in order to maintain **"The Osteopathic Advantage."** For information regarding this seminar, contact the Academy at (614) 366-7911. (©1991 by Laurie B. Jones)

HEAD FIRST BY NORMAN COUSINS:1990	A .T. STILLS: 1890 (PARAPHRASED)
The most important recent change in the practice of medicine, I believe, may be represented by the enlarged knowledge and new respect for the apothecary built into the human system.	"The only drugs most worthy of study are those produced by the human body."
The new term, psychoneuroimmunology, has come to be descriptive of these complex interactions-interactions among the nervous system, the endocrine system, and the immune system. Now that the various other systems of human beings have been discovered and described-all the way from the circulatory system to the autonomic nervous system-the system of interactions is being charted. In that system, every action or event has an effect on the totality.	"The body is designed as a harmonious unit; and disease in one part affects all other parts."
These facts fit in with the last article, written by the late Franz Ingelfinger as editor of the New England Journal of Medicine, in which physicians were reminded that 85 percent of human illnesses are within the reach of the body's own healing system. Hence the importance of the expanding knowledge about the way mind and body can collaborate in meeting serious challenges.	"Nature is perfect, and I believe the body contains within itself every drug it needs to combat disease."

Academy Leadership Lobbies AOA House of Delegates

BY STEPHEN J. NOONE, EXECUTIVE DIRECTOR

AAO President **Judith A. O'Connell** represented the Academy for the purpose of voice at the House of Delegates. President-elect **Herbert A. Yates** and executive director **Steve Noone** also attended the meeting to speak to 42 resolutions at the AOA Board of Trustees, 28 resolutions at reference committees of the House, and "lobby" various state delegations and AOA leadership on a variety of issues. There is no question that the visibility of the American Academy has increased this year at this important business meeting of the osteopathic profession!

Academy President Judith O'Connell (r) "lobbys" Academy members who are delegates at the AOA House of Delegates meeting in Dearborn, MI last July: (l-r) Stephen Blood, Frank Walton and Ann Habenicht.

Barbara Walker (l), an Academy member and delegate from North Carolina, shares a light moment with AAO President Judith O'Connell.

The Academy's delegation achieved four major accomplishments at these meetings:

1) President O'Connell was able to negotiate a revised definition of osteopathic medicine, replacing the unsatisfactory one passed by the House of Delegates in July 1991. The new definition is:

"Osteopathic Medicine: A system of medical care with a philosophy that combines the needs of the patient with current practice of medicine, surgery and obstetrics, and emphasis on the interrelationships between structure and function, and an appreciation of the body's ability to heal itself."

2) The Academy joined with eight state organizations and practice affiliates in a resolution to grant one seat on the House of Delegates to each of 22 AOA

AAO members pose with AOA Trustee William G. Anderson at the President's Reception during the House of Delegates meeting: (l-r) Plato Varidin, Mark LaBeau, Judith O'Connell and Isabelle Chapello.

practice affiliates. The proposal passed by the required two thirds majority and will be submitted for adoption to the House again in 1993 as required by the AOA Constitution and Bylaws.

3) The delegation challenged the proposed deletion of an AOA policy statement which asserts that "an osteopathic musculoskeletal evaluation is an integral part of the physical examination." The AOA Committee on Health Related Policies had proposed the deletion "since such evaluation ... is addressed through hospital accreditation standards." The Academy's representatives argued that the public policy statement is important since such evaluation is one of the unique elements of the profession.

AAO President Edward A. Loniewski, also an Academy member, pauses during his President's Reception to be photographed with AAO President Judith O'Connell.

UAAO Council Chairperson Lisa Sanders (l) visits with AOA President Larry Bouchard (an Academy member), AAO President Judith O'Connell, and AOA Past President Gilbert Bucholz during the President's Reception.

4) President O'Connell communicated her role in representing the profession before the special Health Care Financing Administration's committee to review work values assigned to the osteopathic procedure codes. Her comments were instrumental in the approval of a Texas resolution which will assure that AOA will "urge that any future national surveys by Medicare regarding osteopathic manipulative treatment (OMT) only be sent to D.O.s who use OMT as an integral part of their medical practice."

Throughout the week, board members and delegates approached the Academy's representatives and expressed gratitude for the Academy delegation's comments and public stance on behalf of the profession. President O'Connell received many accolades for her articulate presentations and President-elect Yates much attention due to his role on the Advisory Committee for the AMA's Relative Value Updating Committee (RUC). ❑

AOA Past President Gilbert Bucholz (r) administers the oath of office to AOA President Edward A. Loniewski during the President's Inaugural Luncheon at the House of Delegates meeting.

Strategy for Addressing Third Party Payors on OMT

An Accounting of AAO President Judith A. O'Connell's Representation on the HCFA Panel to Evaluate Work Values

Following my testimony before the American Osteopathic Association's Board of Trustees and House of Delegates in July 1992, many of you have requested that I summarize my experience in representing the osteopathic profession before the Health Care Financing Administration's special panel to review comments on the RVUwork values assigned to manipulation codes. I am pleased to share with you my strategy which was successful in convincing the panel to advocate higher work values for OMT. I hope that they will encourage you and help you in preparing for similar approaches to third party payors in your locality.

The HCFA implemented the Resource Based Relative Value Scale (RBRVS) on January 1, 1992, fully aware that adjustments would have to be made in the future on Medicare's program of physician reimbursement. HCFA provided a comment period on the work values associated with individual RBRVS procedure codes which would permit interested parties and groups the opportunity to challenge HCFA's decisions on these values. Following the deadline for comments, HCFA appointed panels to review all comments, including those regarding HCPCS Codes M0702-730, osteopathic manipulative treatment. The American Osteopathic Association nominated Wayne R. English, D.O. and me to represent the profession on this panel and designated me as the lead spokesperson for the osteopathic delegation.

Five days prior to the convening of the panel, I received from HCFA copies of all the comments submitted on M0702-M0730, along with instructions on how to rate the Relative Value Units (RVUs) on these codes. The comments generally were complaints that the RVUwork value for the MP-codes were too low. The stated purpose of the meeting was to decide if the RVUs in question truly were low, and, if so, then to assign appropriate work values. HCFA provided for reference a set of CPT codes and their RVUwork values for comparison.

HCFA also had sent to me documents from the American Chiropractic Association (ACA) which essentially asserted that the code for chiropractic, A2000, was undervalued and restrictive. The ACA also proposed that the A2000 code be expanded into a "series of codes" based on the osteopathic MO-codes with the same RVUwork value. The ACA claimed that chiropractic manipulation was an equivalent service to OMT and, therefore, should be coded and reimbursed at the same level.

As head of the osteopathic delegation, I had the responsibility for compiling reference material to be used in documenting our support for increased RVUwork values and defending osteopathic manipulation as a separate and distinct medical procedure.

As President of the American Academy of Osteopathy (AAO), I was aware that AAO's Medical Economics Committee and its Ad Hoc Committee on Federal Regulation of Osteopathic Manipulative Medicine had been studying the RVUwork values for osteopathic manipulation codes. I relied on these committees' work which found:

1) HCPCS Codes M0702-730 for osteopathic manipulation were undervalued. I was able to compare the MO-codes to the reference codes provided by HCFA to illustrate the work involved and prepared myself to defend an increase in the RVUwork values for the MO-codes based on that comparison. (Since the RVUwork values are not stable, any discussions you may have with third party payors should be based on current data. In my opinion, the best reference at this time is the RVUwork values assigned to the Evaluation and Management (E&M) codes since these values are the product of the Harvard University study upon which the RBRVS system is based.)

2) The RVUwork values for MO-codes are inconsistent, since the value assigned to MO 706 (treatment of up to six body regions) is higher than MO 708 (treatment of up to eight body regions.) We addressed this inconsistency by pointing out that this series of codes is constructed on the progressive treatment of body regions in groups of two. Logically, the work involved in treating a higher number of regions increases and the RVU-

work values for the higher codes should reflect that increased complexity. We proposed that the basic unit of increase should be the value for MO 702 (treatment of up to two body regions) since the codes progressed in that fashion, i.e. M0704 is twice the work of M0702; M0706 is three times the work, M0708 is four times the work, etc.

3) The RVUwork values for M0702-710 (office based OMT) should parallel the values for M0722-730 (hospital based OMT.) This approach allows for consistent, logical reimbursement.

4) The work involved in OMT necessitates evaluation, diagnosis, treatment plan and selection of appropriate OMT modalities, and the appropriate application and re-evaluation of the OMT. This work calls for a high degree of medical judgement and decision-making and, therefore, necessitates the use of an E&M code in addition to the procedure code (MO-code.) The HCFA panel agreed.

We were successful in communicating this message to the panel. They agreed that the RVUwork values for the MO-codes were undervalued, that our proposal was more realistic, and that the values should be increased. The HCFA leadership agreed to take this recommendation to the next level and advocate an increase in the RVU-work values for OMT codes.

The next issue was the ACA's proposal for an expansion of the chiropractic code (A2000), using a system based on the osteopathic manipulation codes (M0702-730.) The ACA's documents submitted to HCFA asserted the following:

1) Chiropractic treatment is equivalent to OMT because both treat the musculoskeletal system.

2) Chiropractic and osteopathic techniques are the same.

3) We both hold the same belief that disease comes from malalignments of the spine.

4) Chiropractic manipulation is more specific because it treats spinal subluxations and is therefore better than OMT.

5) In light of all of these assertions, chiropractic treatment is equivalent to OMT and should be reimbursed and coded as such.

I had to be prepared to counter these assertions; hence, I read chiropractic literature in order to understand their position. What I discovered is that the chiropractic profession is in turmoil whether to remain classical (proponents are called "straights") or to embrace medicine (advocates are termed "mixers"). The ACA stance is that classical philosophy of disease is caused by malalignment of the spine, and appropriate treatment is directed to chiropractic subluxations. In most states, the scope of practice for chiropractic limits practitioners to "straight" chiropractic and chiropractors are considered "limited license practitioners."

Knowing that the panel would consider the ACA stance as a basis for its discussions, I prepared cases that would illustrate the osteopathic integrated approach to medicine. I purposely stressed the diagnostic and visceral components with an emphasis on treating the system in dysfunction, not just the axial skeleton. I chose two cases for presentation:

1) piriformis syndrome with sciatica; and

2) congestive heart failure with peripheral edema.

In the treatment plan for piriformis syndrome with sciatica, I stressed the treatment of muscle spasm with medication, physical therapy and osteopathic manipulative treatment. This allowed me to demonstrate that OMT is part of a total medical treatment plan and that OMT is *not* physical therapy. I also described techniques that are muscle specific, not axial skeleton specific.

Our preparation paid off. By using the above clinical cases for the basis of my advocacy for higher work values, ACA also had to address these cases to substantiate their claim of equivalency. In their presentation and discussion of chiropractic care for these cases, it became obvious to the panel that there was no support for their claim of equivalency. The panel found that chiropractic manipulation was not equivalent to osteopathic manipulation. Therefore, the chiropractors could not use the MO-codes as a basis for an expansion of their own code.

In summary, we were able to convince the HCFA panel that the work involved in osteopathic manipulation was greater than the present RVU-work values reflect; that the RVU-work values should increase by a unit value reflective of the increased work involved in treating additional body regions that the in-patient and out-patient RVUwork values should be parallel; that an E&M charge is appropriate in addition to a charge for OMT; that chiropractic is not an equivalent service to OMT; that OMT is disease specific, not spinal specific; and that the M0702-730 codes are not templates for chiropractic codes.

I hope that this synopsis of the HCFA panel's discussions and findings are helpful to you in your local and national negotiations with all third party payors. In order to be successful, we must act in unison. The American Academy of Osteopathy is working for you. Through your support as a member, we can continue to make a difference. If you need help or wish to share information with the rest of the profession, please contact the Academy.

Judith A. O'Connell, D.O.
President, AAO

TREATMENT OF PANIC DISORDER

Panic disorder with and without agoraphobia is a debilitating disorder that may afflict as many as 3 million people in the course of a lifetime. It is characterized by panic attacks, which are bursts of terror that seem to come out of the blue. People suffering from a panic attack often think that they are having a heart attack or that they are losing their minds. Secondary to the occurrence of these unexpected panic attacks, panic sufferers often develop agoraphobia and consequently begin to avoid places where they fear a panic attack may recur. If the agoraphobia becomes severe enough, a person may become housebound.

Research gathered in recent years indicates that selected psychopharmacologic and psychosocial treatments are effective in people who have panic disorder, with or without a history of agoraphobia avoidance.

Two classes of antidepressant medications (tricyclics and monamine oxidase inhibitors) and several high potency benzodiazepines (alprazolam, clonazepam, and lorazepam) have been found to be effective, particularly in the short run, in reducing or eliminating panic attacks associated with panic disorder. However, pharmacologic agents may present problems such as undesirable side effects, the risk of dependence, and a significant relapse rate once medications are discontinued.

Research continues on other medications that may prove useful in the treatment of these conditions. Initial indications are that some of these other agents, particularly the serotonin uptake blockers, may be effective panic medications.

Several variations in a cognitive-behavior approach to treatment also have shown significant efficacy in the reduction and/or elimination of panic attacks. Published reports from several research centers indicate that a vast majority of patients are panic-free at the end of a course of cognitive-behavioral treatment, and some data suggest that these benefits last for up to two years after treatment is ended.

Information is sparse or nonexistent on such issues as (1) the effectiveness of combined psychosocial and pharmacologic treatments, (2) the mechanisms of therapeutic actions, (3) individual patient factors that may have predictive value in terms of outcome, (4) the long-term effectiveness of treatment for panic disorder, and (5) the effectiveness of treatment for other problems associated with panic disorder and agoraphobia.

A consensus panel composed of experts in psychiatry, psychology, cardiology, internal medicine, and scientific methodology, as well as members of the general public, considered the scientific evidence presented by a number of experts in the fields. The panel formulated a consensus statement in response to the following five questions:

- What are the epidemiology, natural history, and course of panic disorder with and without agoraphobia? How is it diagnosed?
- What are the current treatments? What are the short-term and long-term effects of acute and extended treatment of this disorder?
- What are the short-term and long-term adverse effects of these treatments? How should they be managed?
- What are considerations for treatment planning?
- What are the significant questions for future research?

The panel concluded that:

- Panic disorder is a distinct condition, with a specific presentation, course, and family history, for which there are effective pharmacologic and cognitive-behavioral treatments.
- Treatment that fails to produce an effect within 6 to 8 weeks should be reassessed.
- Panic disorder patients often have one or more existing mental conditions and thus require careful assessment and treatment.
- The most critical research needs include:

-The development of reliable and valid measures of assessment.

-The identification of optimal choices and stucturing of treatments designed to meet the varying individual needs of patients, and

-The implementation of basic research to define the nature of the disorder.

In the consensus statement, the panel alluded to several other research needs, including:

- The investigation of treatment-resistant patients.
- The investigation of combined pharmacologic and psychosocial treatments for patients who have panic disorder with and without agoraphobia.
- Long-term follow-up studies.
- Investigations of the mechanisms and processes of change, and
- Treatment studies with panic disorder patients who have coexisting

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ANDREW TAYLOR STILL MEDALLION OF HONOR

Dr. Heatherington presented the Andrew Taylor Still Medallion of Honor to two recipients at the Convocation Banquet this past March. In their work as physicians, **Viola M. Frymann, DO, FAAO** and **Robert W. England, DO, FAAO** have remained true to the osteopathic concept upon which this profession and the American Academy of Osteopathy were founded.

Dr. Frymann, a 1949 graduate of the College of Osteopathic Physicians and Surgeons, Los Angeles, California is the Director of the Osteopathic Center for Children in La Jolla, California. She began as a resident physician at Willesden General Hospital and Royal London Homeopathic Hospital, before beginning private practice in 1950 in La Jolla, California. **Dr. Frymann** directed and instructed "The Expanding Osteopathic Concept" courses since 1972, served as Professor and Chairman of the Department of Osteopathic Principles and Practice at the College of Osteopathic Medicine of the Pacific, taught courses for the Sutherland Cranial Teaching Foundation, and acted as Chairperson of the Committee on Osteopathic Principles and Practice at Hillside Hospital in San Diego,

from 1979-1981. Her Academy activities include participation in the Visiting Clinician program, Publications Committee, Secretary and Vice-Chairperson of the American Osteopathic Board on Fellowship of the American Academy of Osteopathy (AOBFAAO), and extensive pediatric research funded by the Academy through the Samuel V. Robuck Fund.

The second recipient of the Andrew Taylor Still Medallion of Honor, **Robert W. England**, a 1956 graduate of the Philadelphia College of Osteopathic Medicine, is in private practice in Dresher, Pennsylvania. **Dr. England** started his career in private practice in Hatboro and Huntington Valley, Pennsylvania, where he presently resides and was anatomy professor at the Philadelphia College of Osteopathic Medicine. In 1969 he became PCOM Chairman and Professor, Department of Osteopathic Principles and Practice, and from 1972-84 Dean (Chief Academic Officer).

Dr. England was the Thomas L. Northup Memorial Lecturer in 1985 at the AOA Convention. He has written a number of articles which appeared in *The D.O., Journal of American Osteopathic Association, British Journal of Medicine*, and the Academy yearbook, among others. ❑

Golden Ram Society Grows

Donations to the 1992 Golden Ram Society continue to grow daily. A total of 44 AAO members have contributed or pledged over $12,375 to the 1992 campaign (as of August 21). Originally the Golden Ram Society supported the 1989 AAO International Symposium. Due to the generous response of Academy members to this appeal, the AAO Trustees and Governors reactivated the Society as an annual fund raising effort with a focus on the Academy's revised long range educational goals.

The list of 1992 donors includes the following AAO members:

A.T. Still Club ($1,000 or more)

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From the Archives

What Twenty-Five Years of Practice Has Taught Me

By F.P. Millard, D.O.

Taken from: *The Osteopath*, Volume 20, July 1925, Number 116

This month closes twenty-five years of osteopathic work. I have learned many things; many more await me. I am now ready for greater action—for a sailing in the uncharted seas. The next twenty-five years will be even more joyful. My work may not be over the table correcting lesions and restoring tissues, that have lost their tone, but whatever research line I may follow, I am confident that it will take many years more to comprehend all of the principles of osteopathy that Dr. A.T. Still held in his unusual mind.

A brief review of some of the striking points that have baffled me may not be amiss. I know by experience:

1) That any treatment must be specific, if you want the best results.

2) That applied anatomy is one of the most essential studies, and that it takes constant study to formulate mental pictures of the numerous nerve connections and reflexes, that play a part in every diseased condition.

3) That the best results cannot be obtained unless you know your pathology.

4) That diagnosis, with all the best tests known, is essential in every instance.

5) That to treat any ailment, without first having made a thorough examination, only reflects on yourself.

6) That there are instances where manipulative treatment should not be

given. The case may be one that is absolutely surgical, or one for fasting and rest cure alone.

7) That it is a mistake to give general treatment in certain diseases. Inflammatory rheumatism, for instance, should be treated most specifically.

8) That it is possible to correct all innominate and sacral lesions without using the legs as levers.

9) That sciatic cases can be treated without stretching the legs.

10) That aedematous cases should be treated from a lymphatic standpoint.

11) That sinus trouble, cold sores, styes, cankers, and sore mouth are due to lymph styes, and may be prevented or restored by proper drainage.

12) That the circulation in general is best regulated by increasing vaso-motor tone, if there is freedom from lymph stasis.

13) That lesions will remain corrected only when you correct the sacrum properly.

14) That it is useless to attempt to reduce a fever if the alimentary tract is blocked.

15) That pneumonia yields to osteopathic treatment almost 100%.

16) That whatever can be done in one treatment can be accomplished in a few minutes' time, if the right technique is used.

17) That the more complicated the case the shorter should be the treatment.

18) That there are some cases we should not take. They should be referred.

19) That any well posted osteopath, giving specific treatment, should be busier than any one who mixes.

20) That the feet and wrists should be treated in almost every instance.

21) That goiter should be treated by adjusting specific centers and not by treating the tumor direct.

22) That when doubtful about a case either call in some one for consultation, or send the patient to some one else, who may better understand the case.

23) That for a young practitioner in a new field, to stock up on a number of old chronic, practically incurable cases is a mistake. Select your cases until you become established.

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CONTINUING OSTEOPATHIC RESEARCH IN NEW ZEALAND

BY RICHARD CARRUTHERS D.O., M.N.Z.R.O.
PAST-EDITOR, JOURNAL OF THE NEW ZEALAND REGISTER OF OSTEOPATHS

The recent publication of six further osteopathic research studies all performed by members of the New Zealand Register of Osteopaths, has continued to emphasize the effectiveness of "hands on" osteopathic treatment for musculo-skeletal pain presentations.

Two of these studies were mentioned in their pre-publication stage in a previous article published in the American Academy of Osteopathy Journal, (Summer 1992), and their results closely mirror those for earlier reported studies.

The first, (study number 9 in the previous report) involved the treatment of 237 medical referral patients whose results were assessed in four (4) different groups according to the chronicity of their symptoms, i.e.. acute (less than 7 days), subacute (7-30 days), chronic (1-12 months), very chronic (more than 1 year). In this study, 84% of the total patient group were discharged either "symptom free" (S.F.) or "much improved" (M.I.) (60-90% improvement). Eighty-two (82%) of chronic patients (more than 1 month), and 53% of very chronic patients (over 1 year) were discharged S.F./M.I. The average number of treatments received was 6.5, with even the very chronic group requiring an average of only 11.5 treatments. Sixty-five (65%) of those patients who had previously received physiotherapy treatment unsuccessfully for their symptoms were discharged S.F/M.I.

The second study (study number 8 in the previous report) involved a five (5) year follow-up of chronic and very chronic medical referral patients who had previously been discharged S.F./M.I. These patients had also been followed up after two years, when it was found that 60% had maintained that state of S.F./M.I., and a further 20% had remained M.I. for some time or to a certain extent. The results of the five (5) year follow-up study correlated very well with those of the two (2) year study, and again showed that two-thirds of patients who have suffered from chronic musculo-skeletal pain for more than one (1) year and who are subsequently discharged S.F./M.I., maintain that state of improvement when followed up two (2) years and 5 years later.

The third study involved follow-ups of 37 patients who attended for one-off visits, (defined as patients who did not receive treatment for four (4) weeks before or after a single visit), during a four (4) week trial period. Patients were asked what effect the treatment had on their problem. Why they did not return, and what side-effects (if any) they experienced. A previous study had found that over 50% of osteopathic presentations were for one-off visits and the purpose of this study was to discover why. The results showed that 70% came only once because they found the treatment very effective and did not need to return. 11% did not return due to cost, and only 5% found the treatment ineffective. Whether or not patients experienced side-effects had no relevance to their decision not to return for further treatment.

The fourth study involved a demographic analysis of 423 randomly selected osteopathic patients to determine age/sex ratios and the effect these might have on the results of treatment. Females presented slightly more frequently (54%) than males, and the 30-39 and 40-49 year age groups were the most frequently represented, with a gradual tailing off in each direction as age increased/decreased.

Previous studies have found that the results of osteopathic treatment differ according to certain variables, these being the chronicity of symptoms, the site of pain, whether the patient has attended for treatment before, and whether they are a medical referral or are self-referred. This study found that the percentage of patients discharged S.F./M.I. decrease with age (from 100% in the 0-8 years age group to 50% in the 70-79 years age group), but that the sex of the patient has no effect on the results.

The fifth study examined the number of times patients presented per week over four (4) randomly selected weeks, and found that 80% of osteopathic patients attended once, 18% twice, and only 2%, three (3) times per week. In the four (4) weeks studied, 0.2% (one (1) patient) attended four (4) times and no patients attended five (5) times per week.

These findings were matched in the sixth study, which found that 88% of patients attended once in a ran-

LETTER TO A. T. STILL

Dear Doctor Still,

I have read many times Chapter X of your Autobiography, and have always considered this chapter to be one of the most emotionally charged chapters you have written. You seem to be so despondent in the beginning of the chapter, but fortunately you end on a happy note.

I take it you were reflecting on some of the very great struggles you must have had in those early days of Osteopathy, having been ridiculed and opposed by so many people. One can only imagine how difficult this must have been for you. With all the enthusiasm and energy you had, only the most trying of times would have caused you to question your lot in life. Here you wrote: "If a man can choose the road he has to travel during life, why does he get into so many that he regrets having taken?" In fact, some people think that you were so despondent during this time that you were even considering suicide when you said: "We feel that death is the only friend left, and would gladly give it an open-armed welcome, but the cries of our children call a halt to the thought of the deadly drug and knife of suicide."

Fortunately you were able to overcome these feelings of despondency and continue to pursue your goal of developing Osteopathy. You would certainly be pleased to know that there is a whole profession today that has benefited from your tireless work. While our struggles are by no means over, nevertheless we are all better off you were able to stay focused on Osteopathy even through the most difficult of times. Your reward was the birth of a whole new profession dedicated to this new way of practicing medicine. I think every osteopathic physician should read or reread this chapter in your book. Knowing more about the personal struggles you had with yourself can only make us more grateful for the legacy you left us. We are always better off when we take the time to learn more about you and what it is that you were trying to tell us.

Your ongoing student,

Raymond J. Hruby, D.O.

Raymond J. Hruby, D.O., FAAO

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domly selected week, 11% twice and 1% 3 times. This study also found that the neck (54%), the low back (52%) and the thoracic spine (43) were the three (3) most common symptom areas, with only 15% presenting with appendicular disorders and 5% with other presentations (headache, TMJ, etc.).

Osteopathy in New Zealand, as in all other countries outside the United States, is practised as an entirely "hands on" profession under restricted license, and this is reflected in the style of research undertaken to date. The studies reported here and in a previous article are by no means definitive works, but form an important foundation upon which to develop this line of research. Moreover, given that the profession in New Zealand is unique in that there is no requirement or need for malpractice insurance.

All of the studies mentioned above have been published in successive Journals of the N.Z. Register of Osteopaths Vols 1-5, copies of which are sent annually throughout the world, including the head of the OMT Dept. at each COM in the USA. The references listed below may also be obtained through writing to The Editor, Journal of the N.Z. Register of Osteopaths, 3 Remarkables Crescent, Frankton, Queenstown, New Zealand.

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2. An Investigation Into the Efficacy of Cranial Manipulation for Cephalgia, by G.Whineray, D.O., JNZRO 1987, p.10-11.
3. Osteopathic Treatment Results for Acute Chronic Injuries, by C.Rowse, D.O. and R.Carruthers, D.O., JNZRO 1987, p.7-9.
4. A Follow-up Study of Chronic A.C.C. Patients, by R.Carruthers, D.O., JNZRO 1988, p.23-24.
5. Results of Osteopathic Treatment According to Site of Pain, by R.Carruthers, D.O., JNZRO 1988 p.26
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8. Five Year Follow-up of Chronic A.C.C. Patients, by R.Carruthers, D.O., and S. Ziolo, JNZRO, 1991, p.12-15.
9. Osteopathic Treatment Results for A.C.C. Patients, by R.Carruthers, D.O., and A. Gaastra, JNZRO 1991, p. 16-20.
10. Does it Have to Be Painful to Get Better? by A.Jacoby, D.O., JNZRO 1989, p. 20-23.
11. Editorial-Post manipulative C.V.A.s., JNZRO 1988, p.1.
12. Post-manipulative C.V.A.s., by J.Cullen, D.O., JNZRO 1989, p.10-13.
13. Why Patients Attend for One-off Visits, by R.Carruthers, D.O., and S. Ziolo, JNZRO, 1991, p.20-23.
14. A Demographic Study of an Osteopathic Patient Population, by R.Carruthers, D.O., JNZR 1991, p.20-23.
15. Weekly Frequency of Osteoapthic Visits, by R.Carruthers D.O. and B.Barker, (unpublished).
16. Profile of a Week at The Tauranga Osteopathic Clinic, by A.Wilson, D.O., JNZRO 1991, p.33. ❑

Alan R. Becker, D.O., Establishes Living Gift For Academy

Winston Churchill stated that "We make a living by what we get, but we make a life by what we give."

Alan R. Becker, D.O., Medical Director of the Becker Osteopathic & Metrecom Clinic in Kailua, Hawaii, has established the Catherine S. Becker Memorial Fund on behalf of the American Academy of Osteopathy.

Dr. Becker established the fund to honor his late wife Cay, who for many years assisted the Academy, serving as Structural Consultation Assistant during the annual conventions and convocations. "Cay was always willing to take on tasks that would help the Academy, and in so doing helped the staff, the students and the physicians during a very busy time."

By setting up the Charitable Remainder Uni-Trust, **Dr. Becker** received an immediate tax deduction for his gift, and will be able to receive a portion of the income from the Trust during his lifetime. Upon his passing or should the assets in the Trust be sold, the Academy will receive the balance of the funds. Current income from the Trust allows the Academy to publish and distribute educational material and also assists in implementing the goals and long range plans of the Academy.

Dr. Becker has contributed greatly to the Academy through his generosity and vision, and hopes that his gift to the Academy will inspire others to do the same.

There are a number of planned giving techniques which can be individually tailored to meet your personal needs. Many provide significant tax savings, professional management and lifetime income for individuals and members of their families.

Gifts can be funded by gifts of cash or property such as land, buildings, furs, jewelry, silver, coin collections, interests in limited partnerships, corporations and so forth. In your estate planning, please remember the Academy. Likewise, if you have grateful patients who wish to contribute to the profession as a thank you for your services to them, consider the Academy.

You can contact **Stephen J. Noone**, CAE, Executive Director at (614) 366-7911 for more information. ❑

M.D.s and D.O.s Team up to Study Most Effective Back Pain Treatment

RELEASED BY THE AMERICAN OSTEOPATHIC ASSOCIATION ON AUGUST 21, 1992

CHICAGO-D.O.s and M.D.s are teaming up to find the most effective way to treat low back pain.

A study has been launched in Chicago to determine the benefit of osteopathic manipulative treatment (OMT) to low back pain patients over and above that of other traditional treatments.

"This research will help quantify the contribution of osteopathic manipulative treatment to patient care," said Howard M. Levine, D.O. chairman of the American Osteopathic Association bureau of research. "The outcome of this project is very important to our patients."

With OMT, an osteopathic physician, or D.O. manually manipulates muscles, bones and tendons to correct structural flaws and to diagnose and treat musculoskeletal problems.

D.O.'s from the Chicago College of Osteopathic Medicine (CCOM) and M.D.s from Rush-Presbyterian St. Luke's Medical Center will join forces to study between 150 and 300 Anchor HMO patients with low back pain. The AOA bureau of research provided the entire amount of funding, in excess of $400,000 for this research, Dr. Levine said.

The three D.O.'s from CCOM are Robert E. Kappler, D.O., Kenneth E. Nelson, D.O. and James A. Lipton, D.O. The study's principal investigator is Gunnar B.J. Anderson, M.D., Ph.D. who is associate chairman of orthopedic surgery at Rush-Presbyterian-St. Luke's. Frederick N. Schwartz, D.O. and Andrew M. Davis, M.D. are co-investigators.

Patients who have experienced low back pain for at least three weeks, but no longer than six months will be randomly assigned to standard care and standard care with OMT. They will be treated for up to three months and results will be compared between the two groups.

Then osteopathic physicians will provide all of these treatments in addition to OMT. Patients in both groups will be seen for four weeks, and then every other week for an additional eight weeks.

Back pain is a major health concern in the United States. Low back pain occurs in almost 80 percent of adults at some time and is the most frequent cause of activity limitations among people below age 40 and the second most common reason for physician visits.

Across the nation the AOA, which represents more that 33,000 osteopathic physicians, encourages scientific research, promotes the public health

and is the accrediting agency for osteopathic hospitals and colleges. ❑

Panic Disorder continued from page 18

mental disorders.

Finally, the panel recommended that NIMH mount an aggressive educational campaign to increase awareness of panic disorder among clinicians, patients, and their families, the media, and the general public. On November 13, 1991, NIMH launched a three-year panic educations campaign that will include the production and dissemination of print and audiovisual information material for the lay public, health care professionals, and employers about the symptoms and treatment of panic societies, mental health organizations, and the media to achieve the goals of the campaign.

Free, single copies of the complete NIH consensus statement on Treatment of Panic Disorder may be ordered from the Office of Medical Applications of Research, National Institutes of Health, Federal Building, Room 618, Bethesda, Maryland 20892, phone (301) 496-1143.

CORRECTION

Lynne Ammann-Hasbrouck, Ed.D. authored the article on pp. 14-15 in the Summer 1992 issue entitled "Will your Recipe Even Be in the Cookbook?"

At the end of the article she and her husband were identified as "practicing in Montana." The location of **Louis Hasbrouk, D.O.'s** practice is Lee's Summit, Missouri.

Congratulations to:

Irvin M. Korr, Ph.D.

for being selected as the latest recipient of:

The George W. Northup, D.O., Medical Writing Award.

Dr. Korr will receive this award at the AOA Convention in San Diego.

25 Years of Practice
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24) That you must keep yourself in trim if you want your patients to have confidence in you.

25) That every physician must have some outdoor recreation, or hobby, if he is going to hold up.

26) That you must study a given number of hours each week — systematic study.

27) That it is essential to attend conventions and compare notes. It always pays.

28) That every physician should make a continued study of some one ailment. It takes years to cover one subject thoroughly.

29) That the general practitioner is the one who will perpetuate osteopathy.

30) That osteopathy has progressed in spite of it's practitioners.

31) That osteopathy will die ouT unless we stick to the lesion idea.

32) That research can be done by everyone, if they but apply themselves.

33) That the two salient points in any physician are, first, a thorough knowledge of his work, and, second, absolute sincerity.

34) That osteopathy, including surgery, is the only natural and scientific method at the present time.

35) That our colleges should teach more osteopathy if they are to endure.

You may be a failure.

You may be a great success.

Or you may be just between the two. ❑

AOBSPOMM Files
continued from page 8

was made, the intervention with osteopathic manipulation, anti-inflammatory medication, and the use of a heel-lift provided a therapeutic as well as preventative means of alleviating further low back pain that this patient might suffer if the diagnosis of short leg syndrome was not made and treated. ❑

Cranial Rythmic Impulse
continued from page 12

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3. Upledger, J.E. and J.D. Vredevoogd. Craniosacral Therapy. Chicago: Eastland Press, 1983, p. 6.

4. Kappler, R.E. Osteopathy in the cranial field: its history, scientific basis, and current status. Osteopathic Physician Feb 1979, pp. 13-18.

5. Magoun, H.I. (ed). Osteopathy in the Cranial Field. Kirksville, MO: The Journal Printing Company, 1976, p. 86.

6. Frymann, V.M. A study of the rhythmic motions of the living cranium. JAOA 70:928-945, 1971.

7. Adams, T., R.S. Heisey, M.C. Smith, and B.J. Briner. Parietal bone mobility in the anesthetized cat. JAOA 92:599-621, 1992.

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9. Norton, J.M. A tissue pressure model for the palpatory perception of the cranial rhythmic impulse. JAOA 91:975-984, 1991 .

10. Dowdy, S. and S. Wearden. Statistics for Research. New York: John Wiley & Sons, 1983.

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CALENDAR OF EVENTS

Sept. 10 - 13 — 21st Annual New England Osteopathic Assembly, Fox Ridge Resort, North Conway, NH. Program Chairman: Robert Brochu, D.O., CME Credits: Category I-A 26.5 hrs. anticipated. Contact: Nancy Dickey, Convention Coordinator, P.O. Box 3007, Skowhegan, Maine 04976, (207) 474-2357, Reg.: $100.00 (Externs, Interns, Residents - Free)

Sept. 11-13 — AOA Osteopathic Graduate Medical Education Leadership Conference. Westin O'Hare, Chicago IL. Contact Douglas Ward, Ph.D., (800) 621-1773

Sept. 11-13 — Osteopathic Physicians & Surgeons of California, Midyear Seminar. The Sheraton at Fisherman's Warf, San Francisco. Contact Matt Weyeuker, (916) 447-2004

Sept. 11-13 — Florida Osteopathic Medical Assn, Midyear Seminar. Hyatt Regency, Westshore, Tampa, FL. Contact FOMA (904) 878-7364

Sept. 15-27 — So. Carolina Osteopathic Medical Assn, Fall Meeting. Hilton Head, SC. Contact Harold R. Nicolette, D.O., (803) 766-4100

Sept. 17-20 — West Virginia Society of Osteopathic Medicine, 1992 General Practice Update. Greenbrier Resort, White Sulphur Springs, WV. Contact Charlotte Anne Cales Pulliam, (304) 345-9836

Sept. 19-23 — AOHA Convention, New Orleans

Sept. 20-23 — 65th Annual Clinical Assembly of Osteopathic Specialists. Chicago Marriott Downtown, Chicago, IL. Contact Wanda L. Highsmith, (800) 888-1312

Sept. 24-27 — "Application of Osteopathic Concepts in Clinical Medicine and Preparation for OMM Boards". Walt Disney World Resort Club Villas and Conference in Lake Buena Vista, FL. Contact Joyce Ann Cost, AAO, (614) 366-7911

OCTOBER

Oct. 1-4 — New Mexico Osteopathic Medical Assn, 12th Annual Balloon Fiesta Medical Symposium. Marriott Hotel, Albuquerque, NM. Contact Floyd F. Smith, (503) 828 1905.

Oct. 2-4 — MAOPS Regional Fall Symposium. Adams Mark Hotel, Kansas City, MO. Contact Shelley D. Catton, (314) 634-3415

Oct. 5-10 — 100th Anniversary of Osteopathic Medicine Week, Celebration on Capitol Mall, Washington D.C.

Oct. 6-8 — Vermont State Association of Osteopathic Physicians & Surgeons, 86th Annual Convention. Ramada Inn, South Burlington, VT. Contact John Peterson, D.O., (802) 229-9418

Oct. 8-11 — Georgia Osteopathic Medical Assn Midyear Conference. Atlanta, GA. Contact GOMA, (404) 953-0801

Oct. 8-11 — American Osteopathic Hospital Assn Annual Convention. Carlton Hotel, Tyson's Corner, McLean, VA. Contact AOHA, (202) 686-7615

Oct. 8-11 — KCOM Founder's Day, "Integrating Osteopathic Medicine into the Second 100 Years." KCOM. Contact Rita Harlow, (816) 626-2232

Oct. 9 — AOA Council on Federal Health Programs in Washington D.C.

Oct. 9-11 — New York State Osteopathic Medical Society, 41st Annual Midyear Conference. Marriott Hotel, Albany, NY. Contact E. Wayne Harbinger, D.O., (518) 663-8812

Oct. 21-23 — Human Kinetics hosting the StairMaster Int'l. Conference on Aging & Physical Activity, Virginia Beach, VA. Contact: Michele Watson (800) 747-4457, KH Journals, Box 5076, Champaign, IL 61825-5076

Oct. 21-25 — American College of Osteopathic Internists Annual Convention. Marriott Marco Island Resort, FL. Contact Brian J. Donadio, (202) 546-0095

Oct. 24-25 — UOMHS, OMT Seminar. Des Moines, IA. Contact Gena M. Alcorn, (515) 271-1480

Oct. 31 — AAO Board of Trustees Meeting. San Diego, CA

NOVEMBER

Nov. 1-5 — AOA Annual Convention. San Diego Marriott Hotel and Marina. San Diego, CA

Nov. 13-14 — COPT

Nov. 13-14 — South Dakota Osteopathic Assn, Annual Meeting. Pierre, SD. Contact Lorin D. Pankrantz, (605) 361-6004

Nov. 13-15 — MAOPS Regional Fall Symposium. Holiday Inn, Joplin, MO. Contact Shelley D. Caton, (314) 634-3415

Nov. 14-16 — WVSOM Visceral Manipulation, Lewisburg, WV. Contact Thomas L. Shaver, D.O., (304) 647-6292

DECEMBER

Dec. 4-6 — IAOPS Winter Update. Embassy Suites Downtown, Indianapolis, IN. Contact Michael Claphan, (317) 926-3009

American Academy of Osteopathy

ELECTION DAY

TUESDAY, NOVEMBER 3

PLEASE BE SURE TO GET YOUR ABSENTEE BALLOT
BEFORE YOU LEAVE TO ATTEND:

THE AMERICAN OSTEOPATHIC ASSOCIATION'S
97TH ANNUAL CONVENTION & SCIENTIFIC SEMINAR
NOVEMBER 1-5, 1992
SAN DIEGO, CALIFORNIA

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