

JOURNAL of CHIROPRACTIC

A publication of the
American Chiropractic Association
1701 Clarendon Blvd.
Arlington, VA 22209

The Journal of Chiropractic © 1993, American Chiropractic Association. Founded in 1930 as the National Chiropractic Association Journal. All rights reserved.

The American Chiropractic Association is dedicated to the health of mankind on the premise that the relationship between structure and function in the human body is a significant health factor. The association is pledged to protect, promote and promulgate the advancement of the philosophy, science and art of chiropractic and the members of the chiropractic profession.

Managing Editor
Irvin Davis

Associate Editor
Michael G. Eagen

Associate Editor
Ann M. Sudekum

Assistant Editor
Jennifer Hill

Art Director
Steven R. Pezold

Artist
Cheryl Keen

Editorial and Design Consultant
Clayton-Davis & Associates, Inc.

Director of Advertising
Lee Clark

Advertising, Exhibits, and Publications Committee: C. E. Bickerton, DC, Chairman, Grafton, WV; Jerilyn S. Kaibel, DC, San Bernardino, CA; Ronald L. Plamondon, DC, Arlington, VA; Gary A. Tarola, DC, Fogelsville, PA.

Editorial offices: 8229 Maryland Avenue, St. Louis, Missouri 63105; Phone: 314-862-7800; Fax: 314-721-5171.

For advertising rates, contact Editorial Office in St. Louis.

JOURNAL OF CHIROPRACTIC

(ISSN 0744-9984) is published monthly by The American Chiropractic Association, 1701 Clarendon Blvd., Arlington, Virginia 22209.

Second-Class postage paid at Arlington, Virginia, and additional mailing offices.

Postmaster: Send address changes to Journal of Chiropractic, 1701 Clarendon Blvd., Arlington, VA 22209.

Subscriptions: \$24.00 per year for ACA members; \$80.00 per year for nonmembers; \$3.00 per year for student ACA members.

Foreign Subscriptions: Rates for international subscriptions including Canada and Mexico: one year \$100 (payable in U.S. currency). Single copies available.

outlook

Will Ergonomic Evolution Wait for Chiropractic?

By Scott W. Donkin, DC
Vice President, Council on Occupational Health

Scott W. Donkin, DC, is a member of the Northwestern College of Chiropractic National Postdoctoral Advisory Council and a postgraduate extension member of seven federally approved chiropractic colleges throughout the United States. Dr. Donkin is a nationally recognized lecturer and frequently counsels industry, health-care practitioners and public health institutions on health, wellness, productivity and ergonomics. Dr. Donkin is author of "Sitting on the Job" and numerous published articles and videos.



Scott W. Donkin, DC

An article appeared in the Federal Register on Aug. 3, 1992, which was very exciting for the chiropractic profession even though the profession was not mentioned. The article was actually an Advance Notice of Proposed Rulemaking (ANPR) written by the Occupational Safety and Health Administration (OSHA) requesting comments and information on ergonomic safety and health management. OSHA defines ergonomic disorders as, "disorders of the musculoskeletal and nervous systems occurring in either the upper or lower extremities, including backs." According to OSHA, these may be caused or aggravated by repetitive motions, forceful exertions, vibration, sustained or awkward positioning or mechanical compression of the hand, wrist, arm, back, neck, shoulder and leg

over extended periods, or from other ergonomic stressors. Ergonomic disorders are the most rapidly growing category of reported work-related illnesses. It is estimated that musculoskeletal disorders, including other soft tissue injuries such as back injuries, carpal tunnel syndrome, sprains and strains are responsible for 30 percent to 40 percent of all workers' compensation claims. The purpose of OSHA's request for comments and information on ergonomic safety and health management was to enable it to develop an ergonomic standard for companies to follow and would eventually be enacted into law. An

continued on page 8

ergonomic standard might include: 1. work site analysis (which includes record assessment); 2. hazard prevention and control; 3. health care management; and 4. training and education. These components are recommendations currently made by OSHA to all employers as a foundation for employee safety and health programs and as a framework for ergonomic programs.

The conditions promoting OSHA's development of an ergonomic standard stem from the staggering costs to employers, employees and society. A similar term to ergonomic disorder is cumulative trauma disorder (CTD). CTDs are not confined to the upper extremities, but can affect the entire body. The U.S. National Center for Health Statistics has indicated that while 14.3 million Americans reported suffering from CTDs, 23 million workers say they have a cumulative trauma problem with their lower back, neck or spine, while 6 million report carpal tunnel syndrome or tendonitis. The reason for the discrepancy in the number of reported and indicated cases is that not all indicated cases are reported. The U.S. Bureau

of Labor Statistics reports that 4.4 million work days are lost annually and most commonly, these are due to workplace injuries and disorders.

The excitement that this brings to chiropractic is that the neuromusculoskeletal approach we take . . . coincides with the general solutions emerging in this ergonomic evolution.

Sit back for a moment to reflect on these numbers so you can see how much our American society is actually adversely affected by CTDs in the workplace. The impact on American society becomes even more noticeable when costs are attached to ergonomic disorders. In order to properly assess costs, several aspects of financial drain must be considered. A typical CTD will incur costs in health-care treatment, decreased productivity, decreased consistency of work and increased error rates. For reported work-re-

lated CTDs, add insurance and administrative costs, possible increased overtime wages to other employees covering for the injured worker and possibly retraining costs to replace the workers who aren't able to return to their jobs. The National Council on Compensation Insurance reports that the average work-related back claim costs approximately \$24,000 in compensation benefits and medical expenses, while the average carpal tunnel syndrome claim costs approximately \$29,000. Carpal tunnel syndrome and back related claims are probably the highest of the CTD categories. Notice that these costs are only for compensation benefits and medical expenses. Blue Cross and Blue Shield of California surveyed its claimants and recently reported that while their average CTD cases cost \$20,000 for medical payments and lost productivity, the total cost of a single carpal tunnel syndrome case can run as much as \$100,000. In addition, these dollars rarely reflect human suffering and the drastic change that occurs in the life of the injured worker and his or her family.

The excitement that this brings to chiropractic is that the neuromusculoskeletal approach we take to restore function and balance, with particular attention to posture, coincides with the general solutions emerging in this ergonomic evolution. The National Institute for Occupational Safety and Health (NIOSH) has reported that the opportunity for upper extremity injury is greater when poor arm/hand postures are combined with repetitive motion. UCLA researcher Philip Harber studied supermarket checkers and concluded that posture is at least as important as repetitive motion in the process of CTDs. In addition to repetitive motion injuries, CTDs include the cumulative effect of working from poor or awkward postures and, by definition,

continued on page 106

IMPORTANT NOTICE

ACA Offers Dues Waiver to Flood Victims

In an effort to assist its members who may have suffered losses due to the recent flooding in the Midwest, the ACA is offering dues waivers and other assistance to those members who are in need.

Should you be one of the flood victims, please contact the ACA in regard to your needs. The ACA will share your concerns through its communications with other members, in every effort to help you through the recovery process.

In addition, if you feel you will be unable to pay your dues at this time, please call the ACA Membership Records and Computer Services Department to request a dues waiver.

To aid you in this regard, feel free to call the ACA's toll-free number, 800-986-INFO.

cumulative trauma indicates a process of physical change which occurs over time and typically from poor biomechanics. All costs associated with CTDs escalate as the time increases from the initial onset of cumulative trauma to the point that ergonomic changes are made and appropriate treatment is rendered. CTDs also are probably the most preventable injuries because poor work postures and biomechanics can be observed and detected before physical conditions get out of hand. The heightened public awareness and corporate and government attention to these ergonomic issues has been accelerated by the sheer numbers of people involved and the staggering costs. This information is as disturbing as

it is exciting, because relatively few chiropractors are actively involved in occupational health. Even though ergonomic disorders and solutions are accurately aligned with chiropractic philosophy and training, it is not yet commonplace for chiropractors to include workplace issues in the comprehensive treatment of their patients. Educational opportunities are available for doctors of chiropractic to be trained in the aspects of occupational health necessary to become fully involved in the OSHA recommended ergonomic standards that were mentioned earlier. The ACA now has a Council of Occupational Health and on November 6th, the final examination by the American Board of Chiropractic Occupational

Health was given. This will result in the first chiropractors being awarded Diplomate status in this emerging specialty. Ergonomic evolution is gaining momentum and will not slow down. The chiropractic profession has the opportunity, and obligation, to participate. ■

The opinions expressed in *Outlook* are presented for the purpose of airing different perspectives on various issues and stimulating constructive thought. They do not necessarily reflect the opinions and policies of the American Chiropractic Association.



QUIZ ANSWERS

Diagnosis/Internal Disorders Quiz

1. true; 2. true; 3. a; 4. ad, bc; 5. b, maybe

Nutrition Quiz

1. c; 2. b; 3. d; 4. f; 5. g

Radiology Quiz

1. a; 2. c; 3. c; 4. d; 5. c

Sports Injury/Physical Fitness Quiz

1. a; 2. c; 3. a; 4. b; 5. b

Advertising Index

ACA Insurance Commission	39	G. W. Heel Lift	75
Altoona, AMS	28	HNA Computer Systems	46
America is Aging	86	Jardine Group Services	4
Billboards	96, 97	K'an Herb Company	51
Bodycare	64	Metagenics	12
Bodyline Comfort Systems	2	N.A.P. Laboratories	31
Chiropractic and Hospital Privileges	82	NCMIC	91
Chiropractic Centennial Foundation	68	National Health Education	7
Chiroventures	15	Operation: Money-Back	9
Dartell Laboratories	18	Parker College of Chiropractic	38
Douglas Laboratories	107	Performance Health	26
The Equitable	73	The Practice Resource Group	32
Foot Levelers—"FirmFlex"	11	Professional Suppliers	62
Foot Levelers—"This Case Is a Challenge"	108	Reference Manuals	16, 17
		Rollins, Hudig, Hall	62
		SSDD Computers	50
		SpectraCell Laboratories	93